# SCHENKER'S CONCEPTION OF MUSICAL STRUCTURE

by

Allen Forte
The Mannes College of Music

A Review and an Appraisal with reference to Current Problems in Music Theory

When Heinrich Schenker died on January 14, 1935, he bequeathed to the musical world a small number of students, a large body of work in theory, and a considerable amount of controversy. For the latter, no end is yet in sight — nor is this necessarily harmful, since disagreement has often been an important and stimulating adjunct to musical thought. But without first establishing criteria and agreeing upon conditions, issues cannot be clearly drawn, even provisionally satisfactory conclusions cannot be reached — in short, intelligent public discussion is impossible. Further, these requirements presuppose that all participants are more or less equally well informed about the subject. Clearly this latter condition is not fulfilled where Schenker's theory is concerned, for although a large proportion of his published work is available, many musicians remain uninformed regarding its extent, significance, and pertinence to current problems in music theory.

The purpose of this article is therefore to present an introductory account of his conception of musical structure, to explain why it should be recognized by serious musicians, and, beyond this, to indicate how it might contribute toward the solution of certain problems which stand before music theory today.

The boldness and the very comprehensiveness of Schenker's work guarantee that he will be a controversial figure for years to come. However, I hope that this review of his work, by providing accurate information to those who are unfamiliar with it, will serve to place future discussions on a somewhat more rational basis than they have been in the past. Yet, even as I write these words, I prepare myself to be misunderstood — such is the price of disputation long conducted in an atmosphere of general misunderstanding.

Why is Schenker's work not more widely appreciated? Is it recondite, unreasonably difficult, lacking in practical significance? The following statements by two well-known musicians strongly support a negative reply.

> The first work which made Schenker's name known in wider circles was his monograph on the Ninth Symphony of Beethoven. This book came into my hands quite by accident in the year 1911 at Lübeck, where as a minor conductor I was

beginning my career. It immediately aroused my most intense interest. Although I was unable to endorse all of its details, and although the polemical posturing of the author went too far for me, the way in which questions were formulated and the conviction and insight with which these questions were answered were so unusual — indeed the whole was so far removed from the usual writings on music — that I was profoundly affected. Here for the first time were no hermeneutics; instead, the author inquired objectively and directly about that which actually stood before us in the work.[1]

Only later [following unfruitful studies with Bussler] under the influence of the writings of the profound theorist and musical philosopher, Heinrich Schenker, did I become aware of what I had missed and begin to grasp theoretical problems, or, rather, they grasped me; they even fascinated me.[2]

Quite understandably, the absence of English translations of Schenker's main works[3] must be held responsible for a great many undesirable aspects of the present situation. But, you ask, what of the books and articles in English which deal, to a greater or lesser extent, directly with his work? I shall attempt to answer this question as concisely as possible. Within the literature which has accumulated around Schenker's theory we can distinguish three types. First, there are surveys of his work. For the most part these are in the form of book reviews where space limitations prevent any kind of thorough coverage. Second, there are critiques of Schenker's concepts which have been published in article form. These invariably presuppose at least a partial acquaintance with his writings, permitting the author to stress those parts of Schenker's theory which support his particular argument. Third, we have several more extended theoretical works (in book form) which represent modifications and/or amplifications of his work, in part or whole. Unfortunately, these do not always make clear the extent to which Schenker's ideas are present in their original form. Therefore, broadly speaking, this entire literature has not contributed significantly toward the understanding of Schenker's work in his own terms.[4]

---

1. Wilhelm Furtwängler, Ton und Wort (Wiesbaden: Brockhaus, 1954).

2. Bruno Walter, Theme and Variations (New York: Alfred Knopf, 1946).

3. Only his Harmonielehre (1906) has been made available in English: Harmony, edited by Oswald Jonas, translated by Elizabeth Mann Borgese (Chicago: Chicago University Press, 1954).

4. An exception to this is Milton Babbitt's excellent condensed survey of Schenker's work included as part of a review of Felix Salzer's Structural Hearing in the Journal of the American Musicological Society, V:260-5. The best extended introduction to Schenker's theory is in German: Oswald Jonas, Das Wesen des musikalischen Kunstwerks (Vienna: Saturn-Verlag, 1934).

A further obstacle to more widespread understanding of Schenker's theory is that its applicability to important current problems in music theory has not been sufficiently appreciated. Partly because of the unfamiliar language and representational means which are integral to it, it has been regarded as a purely "theoretical" system, jealously fostered by an inner circle whose members are completely at odds with the musical world-at-large. True, Schenker's proponents inevitably found themselves in conflict with the rigid and arbitrary constructs of what has come to be known as traditional theory. On the other hand, most musicians are unaware of the extent to which Schenker's ideas have penetrated and modified that theory in recent years.

Then, too, many serious musicians who are not specialists have remained uninformed during the quarter-century following the completion of Schenker's work, because there has been no professional journal devoted to disseminating information about music theory — an essential task which the present periodical has undertaken.

Finally, in considering reasons for the failure of Schenker's work to gain acknowledgement, we must recognize the problem which often arises upon initial contact with his work: even the well-trained musician who reads Schenker for the first time is apt to be thrown off his intellectual balance, for he is confronted with new interpretations of what he has come to regard as familiar events. He is faced with the task of learning a new terminology, a new set of visual symbols, and, most important, a new way of hearing music.

By this I do not intend to suggest that Schenker's theory is without faults. Further on, when I discuss its deficiencies, I shall make an effort to avoid duplicating other critical treatments of Schenker's theories. This is easier to do than one might expect, because earlier treatments tend to emphasize aspects of Schenker's work which are less problematic now.[5] A major reason for this change is to be seen in the general trend in thinking which has taken place during the past quarter-century, a trend heavily influenced by the accelerated development of science. Even music has been affected, to the extent that, for example, we can now regard the late 19th-century concept of "modulation" merely as a verbal inaccuracy. There seems to be no further need to worry this, or, I trust, such equally moldy bones of contention as the degree of correspondence between Schenker's theoretical formulations and what was "in the composer's mind" as he composed.

Before describing the content of Schenker's work in greater detail, I should like to survey his achievement in general terms. From the viewpoint of the present-day music theorist, this may be likened to a particular kind of high-level achievement in science: the discovery or development of a fundamental principle which then opens the way for the disclosure of further new relationships, new meanings. Regarded in this way, Schenker's achievement invites comparison with that of

5. To the best of my knowledge the most recent extended critique of Schenker in article form is Michael Mann's "Schenker's Contribution to Music Theory," Music Review, X:3-26.

Freud. Just as Freud opened the way for a deeper understanding of the human personality with his discovery that the diverse patterns of overt behavior are controlled by certain underlying factors, so Schenker opened the way for a deeper understanding of musical structure with his discovery that the manifold of surface events in a given composition is related in specific ways to a fundamental organization. Over a period of years, Schenker's discovery gradually assumed a more distinct conceptual form which I shall refer to as the concept of structural levels. To articulate this idea Schenker invented a special vocabulary and devised a unique representational means. I will explain these further on.

I wish to emphasize at this point that the bases of Schenker's concept of structural levels, upon which his theory of music rests, are not to be found in abstruse speculation, or in acoustical or metaphysical formulations (although Schenker was not averse to these), but in the organization of the music itself. Schenker consistently derived his theoretical formulations from aural experiences with actual musical compositions, and verified them at the same source.[6] Furthermore, his analytic techniques, as well as his analytic concepts, are directly related to performance and compositional practices which stand at the very center of the development of tonal music. I shall return to this often neglected facet of Schenker's work further on.

Schenker's achievement — which might be termed the deepening of musical understanding through the discovery of the principle of structural levels — spans a period of some forty years, during which time he was engaged in a wide variety of activities. Because these activities were all closely associated with his main task, the development of his theory of musical structure, I should like to devote a few words to a description of them, indicating how they provided an appropriate setting for his work. Schenker was never associated with an educational institution. He earned his living mainly by giving private lessons in theory and piano. He was able to bring all his instructional activities within the scope of his theoretical formulations through a single, central activity: analysis. This is evident in his attitude toward performance. Following the lead of C. P. E. Bach here as elsewhere, Schenker believed that a composition could be reproduced correctly only if the performer had grasped the composer's intentions as revealed by the score, and if he had developed an aural sensitivity to the hierarchy of tonal values which it expressed. His corresponding viewpoint toward music education should gladden the heart of every hard-pressed counterpoint teacher. According to Hans Wolf, Schenker once made the following remark: "If I had my way, every instrumentalist would have theory as his major study. It is not enough for him simply to play mechanically, as though he has Czerny exercises before him. They say they have practiced (especially the ladies). But what is the use of that? What Geist makes their practicing vital? In painting and poetry

6. A certain amount of confusion in this regard may be attributed to Schenker's frequent indulgence in lengthy ontological justification of his concepts.

Czerny exercises do not exist!"[7]

Schenker's pedagogical activities appear to have occupied a central position in his life. Almost all his writings are intended to instruct — in the most "practical" sense of that term. One sometimes overlooks the fact that his magnum opus, Neue Musikalische Theorien und Phantasien,[8] is actually a self-contained series of textbooks which were published intermittently over a span of thirty-four years. Outwardly, the pedagogical goal of this series is direct, even old-fashioned, namely, to provide instruction in the traditional subjects of harmony and counterpoint. But — and here is Schenker's innovation — this instruction is so designed that it leads stage by stage to an understanding of the total work in all of its complexity. The boldness and uniqueness of this plan is hardly less striking today than it was a quarter of a century ago. Consider, for example, that in the first volume of his Kontrapunkt Schenker relates rudimentary species counterpoint exercises to the elaborate structural events in composed works, and that the relationships established are not of the obvious and transitory nature so often encountered in textbooks, but are far-reaching, cogent, and in the best sense, musical.

To continue this short account of Schenker's activities, I turn to his work as editor. It is perhaps not exaggerating to say that, in his explanatory editions of the late Beethoven sonatas, Schenker gave a major impetus to the entire modern movement toward better editing practices. In preparing that edition (published 1913-1920) as well as the complete edition of the Beethoven sonatas, the C. P. E. Bach sonatas and the J. S. Bach Chromatic Fantasy and Fugue, he employed the procedure, now standard, of consulting autographs and first editions in order to arrive at the best possible reading. Whenever they were available, he also studied compositional sketches and copies revised by the composer.

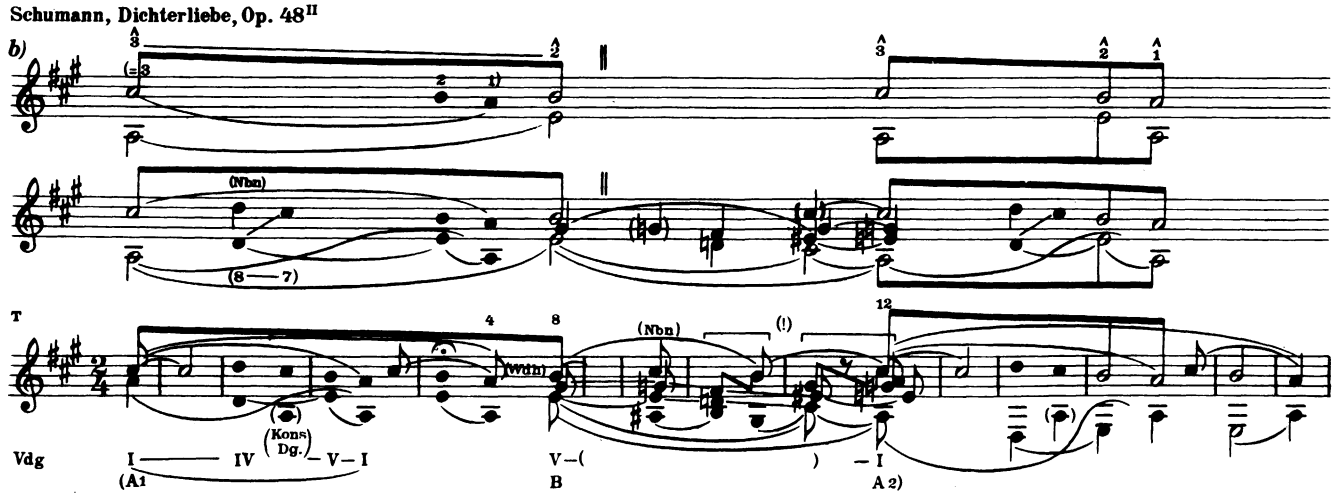
Autograph study played an especially important role both in Schenker's editions and in his analyses. He regarded the autograph not only as an authoritative source (in conjunction with the first edition) for making decisions about the externals of the music (notes, slurs, etc.) but as an indicator of more elusive properties, for example, rubato, dynamics and phrasing. As is the case with other aspects of his work, Schenker's contributions to the field of autograph study have not been widely acknowledged by the profession. Fortunately, Schenker (never one to conceal his accomplishments) took the precaution of securing credit for himself by means of a single sentence in Der Freie Satz (p. 33) where he claims the honor of being "the founder of the science of autograph study!"

However, it is in the application of his theory of musical struc-

7. Hans Wolf, "Schenker's Persönlichkeit in Unterricht," Der Dreiklang, VII:176-84. (My translation)

8. Heinrich Schenker, Neue musikalische Theorien und Phantasien (3 vols.); Vol. I: Harmonielehre, Vienna, 1906; Vol. II (erster Halbband): Kontrapunkt, Stuttgart & Berlin, 1910; Vol. II (zweiter Halbband): Kontrapunkt, Vienna, 1922; Vol. III: Der Freie Satz, Vienna, 1935.

Example 1. Figure 22a from the Anhang to Der Freie Satz.




Reprinted with permission from Universal Editions, Vienna.

ture to the analysis of a wide variety and large number of compositions by means of unique procedures that Schenker is most outstanding.[9] The most important and definitive segment of Schenker's analytic work is contained in the Anhang to Der Freie Satz, a collection of 550 illustrations drawn from the literature of tonal music. These include examples of details as well as analytic sketches of complete movements from extended works. Here the representational devices developed by Schenker reach a degree of refinement which renders lengthy verbal explanation unnecessary.[10] Since these sketches use the symbols of standard musical notation, augmented by arrows, brackets, dotted lines, etc., much of the information they present is readily accessible to the musician, although he may not read German, provided he has had some instruction in interpreting the signs with relation to Schenker's thought. Further on I shall provide a commentary upon an analytic sketch, which is designed to introduce the reader to Schenker's notational devices as well as to his ideas of musical structure. First, however, I would like to complete this brief survey of Schenker's life work by mentioning two projects which interested him considerably, but which he did not live to complete. One of these was an instruction book on form, apparently intended to supplement the final chapter of Der Freie Satz, where the subject is given only a cursory treatment. The second was a book on interpretation (Die Kunst des Vortrags). However, this did reach a certain state of completion and I understand it is to be published in Germany under the editorship of Oswald Jonas.

I can think of no more satisfactory way to introduce Schenker's ideas, along with the terminology and visual means which express them, than to comment at some length upon one of his analytic sketches. For this purpose I have selected from Der Freie Satz a sketch of a complete short work, the second song from Schumann's Dichterliebe (Ex. 1, p. 6). I shall undertake to read and interpret this sketch, using, of course, English equivalents for Schenker's terms.[11]

Here in visual form is Schenker's conception of musical structure: the total work is regarded as an interacting composite of three main levels. Each of these structural levels is represented on a separate staff in order that its unique content may be clearly shown. And to show how the three levels interact, Schenker has aligned corresponding

9. On this point Milton Babbitt has written: "...Schenker has contributed...a body of analytical procedures which reflect the perception of a musical work as a dynamic totality, not as a succession of moments or a juxtaposition of 'formal' areas related or contrasted merely by the fact of thematic or harmonic similarity or dissimilarity." (op. cit.)

10. I stress the adjective "lengthy" here. Obviously a certain amount of verbal explanation is required.

11. The rendering of Schenker's technical expressions into English presents a number of problems, not the least of which is the fact that there are already, in some cases, two or more published versions of the same term. It is to be hoped that with the publication of Der Freie Satz (now being translated) a standard nomenclature will be established.

elements vertically. I shall first make a quick survey of this analytic sketch and then give a more detailed explanation.

The lowest staff contains the major surface events, those elements which are usually most immediately perceptible. Accordingly, Schenker has designated this level as the foreground. In deriving his foreground sketch from the fully notated song, Schenker has not included all its actual note values. Those which he does include represent in some cases the actual durational values of the work; but more often they represent the relative structural weight which he has assigned to the particular tone or configuration. This sketch omits repeated tones, and shows inner voices in mm. 8-12 only, indicating that there they have greater influence upon the voice-leading.

On the middle staff Schenker has represented the structural events which lie immediately beyond the foreground level. These events, which do not necessarily occur in immediate succession in relation to the foreground, comprise the middleground. It should be evident now that the analytic procedure is one of reduction; details which are subordinate with respect to larger patterns are gradually eliminated — in accordance with criteria which I will explain further on.

Finally, on the upper staff, he has represented the fundamental structural level, or background, which controls the entire work.

Now let us consider the content of each level in some detail. This will provide an opportunity to examine other important aspects of Schenker's thought, all derived from his central concept.

A series of sketches such as this can be read in several directions. For the purpose of the present introductory explanation it would seem advantageous to begin with the level which contains the fewest elements and proceed from there to the level which contains the most — thus, reading from top to bottom or from background to foreground. By reading the sketches in this order we also gain a clear idea of Schenker's concept of prolongation: each subsequent level expands, or prolongs, the content of the previous level.

The background of this short song, and of all tonal works, whatever their length, is regarded as a temporal projection of the tonic triad. The upper voice projects the triad in the form of a descending linear succession which, in the present case, spans the lower triadic third. Schenker marks this succession, which he called the Urlinie, or fundamental line, in two ways: (1) with numerals (and carets) which designate the corresponding diatonic scale degrees, and (2) with the balken which connects the stemmed open notes (I shall explain the black noteheads shortly). The triad is also projected by the bass, which here outlines the triadic fifth, the tonality-defining interval. Schenker calls this fundamental bass motion Bassbrechung, or bass arpeggiation. Like the fundamental line, it is represented in open note-heads. The fundamental line and the bass arpeggiation coordinate, forming a contrapuntal structure, the Ursatz, or fundamental structure which consti-

tutes a complete projection of the tonic triad.[12] Thus, to Schenker, motion within tonal space is measured by the triad, not by the diatonic scale.

Observe that in this case the most direct form of the fundamental structure would be the three-interval succession in the outer voices: fundamental line, $\hat{3}$-$\hat{2}$-$\hat{1}$; bass arpeggiation, I-V-I. The background sketch shows that this succession occurs consecutively only in the last part of the song. The song begins unambiguously with $\overset{3}{\text{I}}$; however, it does not progress immediately to $\overset{2}{\text{V}}$ and from there on to $\overset{1}{\text{I}}$; instead, the first interval is prolonged as shown in the sketch: the upper voice C-sharp first receives an embellishment, or diminution, in the form of the third-spanning motion, C-sharp—B—A (represented in black noteheads), and then moves over a larger span (shown by the beam) to B on the last eighth-note of m. 8, where it is supported by the bass V. (This V is not to be equated with the final V (m. 15), which effects a closure of the fundamental line.) Schenker then shows how this initial prolongation is followed by a restatement of $\overset{3}{\text{I}}$ and the completion of the succession $\overset{\hat{3}\text{-}\hat{2}\text{-}\hat{1}}{\text{I-V-I}}$.

To recapitulate, there are two prolongational classes shown in this background sketch. The first includes diminutions, or prolongational tones of shorter span (represented by black noteheads); the second includes the larger prolongational motion from $\hat{3}$ to $\hat{2}$ (connected by the beam) which comprises the controlling melodic pattern of the first phrase. Schenker regards this larger prolongational motion as an interruption of the direct succession, $\overset{\hat{3}\text{-}\hat{2}\text{-}\hat{1}}{\text{I-V-I}}$, and represents it by placing parallel vertical lines above the staff following $\overset{\hat{3}\text{-}\hat{2}}{\text{I-V}}$. The fundamental structure, which is in this case the uninterrupted succession $\overset{\hat{3}\text{-}\hat{2}\text{-}\hat{1}}{\text{I-V-I}}$ therefore may be considered as the essential content of the background.[13] In reading Schenker's analytic sketches a distinction must often be drawn between the background level in toto, which sometimes includes prolongations of primary order as in the present case, and the essential content of that level, the fundamental structure. Thus, "fundamental structure" designates a specific contrapuntal organization which assumes several possible forms, whereas "background" is a term which may include other events in addition to the fundamental structure, as in the present instance, where it includes two prolongations, each belonging to a different structural order. This distinction, not always clearly drawn by Schenker, is indispensable to the full understanding of his sketches and commentaries. In this connection I point out that within each of the three main structural levels several sub-levels are pos-

12. Each tonal work manifests one of three possible forms of the fundamental line, always a descending diatonic progression: 3-1 (as in the present case), 5-1 and 8-1. Variants upon these forms arise when the bass arpeggiation disposes the fundamental line components in different ways.

13. It should be apparent that Schenker's major concept is not that of the Ursatz, as is sometimes maintained, but that of structural levels, a far more inclusive idea.

sible, depending upon the unique characteristics of the particular composition.[14]

The idea of the interrupted fundamental line provides the basis for Schenker's concept of form. For example, in the typical sonata-allegro form in the major mode, interruption of the fundamental linear progression at the close of the exposition normally gives rise in the development section to a prolongation which centers on V. Of course, the prolonged fundamental line component varies, depending upon which form of the fundamental structure is in operation and upon which specific prolongation motions occur at the background level.

Before explaining the middleground, I should like to direct attention again to the diminution which spans the third below C-sharp (black noteheads). By means of the numerals 3, 2, 1, enclosed in parentheses, Schenker indicates that the motion duplicates the large descending third of the fundamental line. This is an instance of a special kind of repetition which Schenker called Uebertragung der Ursatzformen (transference of the forms of the fundamental structure). Throughout his writings he demonstrates again and again that tonal compositions abound in hidden repetitions of this kind, which he distinguishes from more obvious motivic repetitions at the foreground level.

We can interpret the content of the middleground most efficiently by relating it to the background just examined. The first new structural event shown at the middleground level is the expansion of the smaller prolongational third (black noteheads) by means of the upper adjacent tone,[15] D, which serves as a prefix. The sketch shows how this prolongational element is counterpointed by the bass in such a way as to modify the original (i.e. background) third. That is, the figured-bass numerals in parentheses indicate that the second C-sharp (black notehead) is a dissonant passing-tone, and therefore is not to be equated with the initial C-sharp, which serves as the point of departure for the fundamental line. The adjacent tone D recurs in m. 14, where Schenker assigns more structural weight to it, as indicated by the stem. I reiterate that conventional durational values are used in the analytic sketches to indicate the relative position of a given component or configuration in the tonal hierarchy — the greater the durational value, the closer the element to the background.

---

14. Undoubtedly Schenker compressed many of his sketches in consideration of the practical requirements of publication. Mr. Ernst Oster, who has in his possession a large number of Schenker's unpublished materials—which he plans to present along with commentaries at a future date—has brought this to my attention. Schenker's unpublished sketches of Brahms' Waltzes, Opus 39, for example, are executed on several superimposed staves, so that each structural level is shown distinctly and in detail.

15. Schenker's abbreviation, "Nbn," stands for Nebennote, or in English, adjacent tone (not "neighbor tone").

In addition to the prolongation described in the preceding paragraph, the middleground contains the essentials of the prolongational middle section (mm. 10-12) which appears in more detail in the foreground sketch. Schenker regards this entire middle section as a prolongation of the background fifth formed by $\frac{2}{V}$. Its main feature is the inner voice which descends from G-sharp to E, a middleground duplication of the fundamental line's third. The bass which counterpoints this inner voice arpeggiates the tonic triad, E—C-sharp—A. Schenker shows how the arpeggiation is partially filled in by the passing tone, D, and by slurring E to A he indicates that he considers that motion to be the controlling bass motion, within which the C-sharp functions as a connective of primarily melodic significance.[16] Here we have an example of the careful distinction which Schenker always draws between major bass components or Stufen, which belong to the background level, and more transient, contrapuntal-melodic events at the foreground and middleground levels.

A brief consideration of three additional events will complete our examination of the middleground level. First, observe that the diatonic inner-voice descent in the middle section, G-sharp—E, is filled in by a chromatic passing-tone, G. Schenker has enclosed this in parentheses to indicate that it belongs to a subsidiary level within the middleground. Second, observe that just before the inner-voice motion is completed on the downbeat of m. 12, the G-sharp, its point of departure, is restated by an additional voice which is introduced above it. Schenker has pointed out that in "free" compositions, particularly instrumental works, the possibility of more elaborate prolongation is greatly increased by introducing additional voices, as well as by abandoning voices already stated. The final event to observe here occurs in the middle section: the motion from B, the retained upper voice, to C-sharp on the downbeat of m. 12. This direct connection does not actually occur at the foreground level, but Schenker, feeling that it is strongly implied by the voice-leading context, encloses the implied C-sharp in parentheses and ties it to the actual C-sharp, thereby indicating that it is an anticipation.

In the foreground sketch Schenker represents for the first time the metrical organization of the song. As I have already mentioned, he shows there some of the actual durational values, in addition to using these as sketch symbols. This reveals the position assigned to meter and rhythm in his system: he considered them to be important structural determinants at the middleground and foreground levels but subsidiary to the fundamental tonal organization, which, he maintained, was arhythmic. I shall return to this further on when I consider the general problem of constructing a theory of rhythm for tonal music.

Let us now examine some of the relationships which Schenker has shown in his sketch of the foreground, this time beginning with the bass. In m. 3 he encloses the bass-note A in parentheses and marks it

16. "The bass executes an arpeggiation, descending through the third, but without terminating the interruption," Der Freie Satz, p. 89. This is one of Schenker's few comments upon this sketch.

with the abbreviation, Kons. Dg. (Konsonanter Durchgang or "consonant passing-tone"). By this he indicates that the tenth which the bass A forms with the upper-voice C-sharp transforms the latter, a dissonant passing-tone at the middleground level, into a consonance at the foreground level. In this way he also intends to indicate the function of the chord at that point. Since it supports a passing-tone in the upper voice it is a passing chord. In addition, it belongs only to the foreground and therefore is to be distinguished from the initial tonic chord, a background element. Two of Schenker's most important convictions underlie this treatment of detail: (1) that the study of strict counterpoint provides the indispensable basis for a thorough understanding of the details, as well as the larger patterns of a composed work, and (2) that the function of a chord depends upon its context, not upon its label. This can be seen in his notation of the chords in this sketch. Although he uses the conventional Roman numerals he provides them with slurs, dashes and parentheses to show their relative values in the tonal hierarchy. Thus, the long slur from I to I indicates that the IV and V chords lie within the control of that chord, while the abbreviation, Vdg. (Vordergrund) shows that the succession belongs to the foreground. And in the middle section, mm. 8-12, the parentheses show that the chords between V and I are subsidiary chords. These arise as part of the prolongational complex at that point and stand in contrast to the stable background chords I and V.

Now let us turn to the melody. We can most efficiently examine its structure by first comparing each foreground prolongation (slurred) with the larger middleground prolongation immediately above it, and then by relating both the foreground and middleground to the background. In this way we see that the foreground prolongation of the first section spans a descending third twice, thus duplicating the successively larger thirds at the middleground and background levels. In the middle section the melody undergoes more elaborate development. There, by means of connecting beams, Schenker shows how the upper voice skips down to the inner voice and back again. The ascending skips comprise a sequence of two fourths, which are marked by brackets and emphasized by a typically Schenkerian exclamation point. This sequence lends support to his reading of the implied anticipation of C-sharp in the upper voice of m. 12, mentioned earlier.

The foreground of the middle section provides a good example of Schenker's concept of "melody" (he avoided the term in his writings) as a self-contained polyphonic structure. This valuable aspect of his theory,[17] which is absolutely indispensable to any kind of intelligent melodic analysis, is well substantiated by compositional practice. There are many passages in the literature where polyphonic melodies, implied at one point (often the beginning) are subsequently realized in

17. A highly interesting application of this concept is to be found in Schenker's essay, "Das Organische der Fuge," (Jahrbuch II, see footnote 20), where he employs his technique of synthesis, or reconstruction, to demonstrate that the subject of Bach's C-minor Fugue (WTC I) implies a complete, self-contained contrapuntal structure.

full, for example in the first movement of Mozart's Sonata in A minor, or in Brahms' Intermezzo in B-flat major, Op. 76/4; and, of course, we find a special development of this concept in Bach's compositions for solo violin and for solo 'cello.[18] Here, in the foreground sketch of the middle section the diagonal beams show that the vocal melody shifts back and forth between two lines, the lower of which belongs to the accompaniment. It is evident that this section contains the most intricate upper-voice prolongation.

It also contains the most elaborate bass motion. The sketch shows how the bass provides counterpoint to the upper-voice (foreground) prolongation of B, bass and upper voice comprising the interval succession 5-10-5-10-5, which is enclosed within the middleground outer-voice succession, $\begin{matrix}B\\E\end{matrix}$—C-sharp. Observe that the upper voice alternates between an upper adjacent-tone prolongation of B (marked Nbn.) and the skips into the inner voice which were explained in the preceding paragraph. The lowest voice in this passage is subordinate to the voice which lies immediately above it, E—D—C-sharp, the latter succession being the actual bass line (cf. middleground sketch). Nor does its registral position above the foreground bass lessen its importance as the main motion-determinant in the lower voices. Therefore, the foreground bass which displaces or covers it registrally might be termed a "pseudo-bass."[19]

One final aspect of the foreground sketch deserves mention: the form. Schenker indicates this with the customary letters and exponents. The foreground form therefore corresponds to the form-generating interruption at the middleground and background levels as follows:

| Statement | Interruption | Restatement and Closure |
|---|---|---|
| $A^1$ | B | $A^2$ |

It should be apparent that an analysis of this kind embraces all the information generally included under the heading "form and analysis" but that it goes far beyond to interpret the relationships to the background which are revealed during its initial phases, where the main concern is to achieve an accurate reading of foreground and middleground.

A summary of this analysis should properly include a classification of the chromatic chords in the middle section of the piece, and a more precise explanation of the coordination of linear intervals at the foreground level, the descending thirds and fifths (which latter take the form of diminished fifths and ascending fourths in the middle section). However, because of space limitations, I shall not undertake a sum-

18. Cf. Johann David Heinichen, Der General-Bass in der Composition (Leipzig, 1728), pp. 558ff: "Das 2-stimmige Harpeggio," "Das 3-stimmige Harpeggio," etc.

19. Relationships of this kind occasionally cause students to be confused; by assigning a structural event to the wrong level they necessarily arrive at a misreading. The technique of reconstruction serves as a corrective in such instances.

mary here, but instead go on to discuss other aspects of Schenker's work. If the preceding commentary has succeeded in demonstrating some of Schenker's more important ideas, as well as clarifying some of the vocabulary and visual devices which he employs to express those ideas, it has fulfilled its purpose.

I turn now to the development of Schenker's theory and to its sources in musical practice. The concept of structural levels, which, as I have pointed out, is central to Schenker's theory, was first set forth in the analyses published in Der Tonwille (1921-24). However, the idea of the background and its essential content, the fundamental structure, did not emerge clearly until many years later; not until the publication of Der Freie Satz (1935) was it definitively stated. Schenker was very much aware, in retrospect, of the development of Ursatz concept and the representational means which he so closely associated with it. Thus, in the introduction to Der Freie Satz he remarks (with characteristic pride): "Since the task of being the first to discover the background world in music devolved upon me I was not spared the difficulty of finding symbols which would represent it, a task which required many years. Furthermore, the engravers did not always display the requisite degree of understanding. For these reasons the illustrations in, for example, the issues of Der Tonwille and in the Jahrbücher[20] have not always revealed the final structure!"

Although Schenker explained his relationship to theorists of the past in considerable detail (his Kontrapunkt for example includes quotations from Fux, Albrechtsberger, Bellermann, Cherubini), he did not spell out the basis in musical practice of his main tool, the reduction technique, with which he revealed and articulated tonal organization. Possibly he was unaware that it required explanation or justification. However this may be, subsequent misunderstanding of his work, allegations of arbitrariness, and failure to recognize his direct link with the traditions of music, suggest that an explanation is in order. In brief, the analytic technique of reduction derives from the compositional technique of variation, as it developed during the tonal period.[21] At the risk of oversimplifying, I point out that reduction is approximately the reverse of variation. By means of variation techniques a basic structure becomes more elaborate, in terms of increasing number and variety of melodic-rhythmic events. Reduction accomplishes the reverse; detail is gradually eliminated in accord with the traditional distinction between dissonant and consonant tones (made with reference to the tonic triad, the elemental consonance) so that the

20. Schenker usually referred to the three volumes of Das Meisterwerk in der Musik as the Jahrbücher (yearbooks), abbreviated Jhrb. (Munich: Drei Masken Verlag, 1925, 1926, 1930).

21. This development is interestingly documented in Ernest Ferand's anthology, Die Improvisation in Beispielen aus neun Jahrhunderten abendländischer Musik (Köln, Arno Volk Verlag, 1956). Mr. Ferand's illustrations and commentary substantiate Schenker's conviction that variation procedures are shared by formal composition and extempore composition.

underlying, controlling structure is revealed.[22] Although Schenker amplified and refined this procedure, it is far from being his innovation. Reductions of a rudimentary kind are to be found in, for example, many of the 16th-century textbooks on diminution, in the 17th-century writings of Bernhard, and in the 18th-century tome on figured-bass by Heinichen (see footnote 18). The latter author makes extensive use of reductions to explain the process of Verwechslung (prolongation, in Schenker's terms) as well as to analyze certain passages purported to be "incorrect" by colleagues. All of these treatises lend strong support to Schenker's musical thought and, on the negative side, demonstrate the extent to which 19th-century theorists obscured the relationship between theory and practice so firmly established at the close of the 18th century.

In Schenker's early analyses, the reduction technique served to reveal only the sub-levels within the foreground and to a certain extent the middleground. Thus, the Urlinie of 1921 is not the Urlinie of Der Freie Satz. The latter is a single linear progression which spans the whole work under specific contrapuntal conditions. The Urlinie of 1921 corresponds more closely to what Schenker ultimately would designate a Zug (linear progression) at the middleground level. Thus, with the development and refinement of the concept of structural levels, Schenker, probing ever more deeply into musical structure, went beyond mere reduction and description; he began to interpret the reduction with reference to a unique conception of structural coherence, a bold and imaginative formulation of the organizing forces of triadic tonality. While doing this, he greatly enlarged the traditional notions of harmony and counterpoint and at the same time made them far more specific. These are embodied in the Ursatz, where the fundamental line represents the contrapuntal-melodic dimension and the bass arpeggiation represents the harmonic.

Critics of Schenker seem to fall into two general categories: in the first are those who reject his attitude toward music and music study, and in the second are those who reject either part or all of his theoretical system.[23] Of the latter group of critics, by far the largest

22. Curiously enough, Schenker did not explain in his writings how to carry out a reduction. Whatever his reasons for this may have been, he is probably being sarcastic when he suggests in Der Freie Satz that the reader who wishes to arrive at the deeper structural levels need only apply the method of reducing more extended diminutions which is taught in all schools and textbooks. Such an undertaking, even supposing the student grasped the bare essentials, would be like translating from a foreign language word by word, mechanically, without understanding its syntax or idioms. At the Mannes College of Music, where Schenker's theory has been taught since Hans Weisse introduced it in 1931, students normally require a full year of instruction before they achieve the kind of facility which enables them to deal with more complex works.

23. Implicit here is a distinction between Schenker as theorist and Schenker as philosopher-historian. Schenker's interpretation of music history rarely demonstrated the same clear, rigorous thinking

number question the validity of the Ursatz, the fundamental structure.[24]

The fundamental structure can be justified on perceptual grounds. Relevant to this, Furtwängler has called Schenker's great accomplishment the discovery of Fernhören (literally, "distance-hearing"). And the fundamental structure can be justified on historical grounds. I have already explained its direct connection with traditional practices in composition and performance. But it is also, and perhaps most importantly, justifiable on methodological grounds. By this I mean that if, in analysis, the fundamental structure is regarded as a generalized characteristic of the composed music of triadic tonality, if it is regarded as a structural norm, as a construct which is always subject to modification when the structural events of a particular work do not support it, then surely a number of objections disappear. Understood in this way, the fundamental structure is one norm — at a high level of abstraction — among a number of others, such as root progression by fifths, sonata-allegro form, stepwise resolution of dissonance, which are now widely utilized, generally without question. It should be remarked here that some of Schenker's critics are not always explicit as to whether they reject only his structural norms or structural norms altogether. This makes communication difficult, if not impossible.

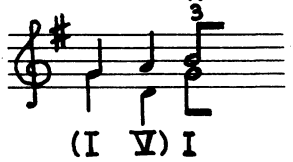
Although Schenker came very close to constructing a complete system, further refinement and amplification are required if it is to fulfill its promise. Superficial criticism is particularly damaging to efforts along this line. Specific deficiencies are only obscured when it is alleged that faults in Schenker's theory can be traced to his rigidity and arbitrariness. These characteristics, which are by no means typical, are symptomatic rather than causal. The important deficiencies in his system arise from his failure to define with sufficient rigor the conditions under which particular structural events occur. An instance of this, in my opinion, is the upper-voice event which Schenker called Anstieg, an initial stepwise, usually ascending "space-opening" motion to the first tone of the fundamental line. Schenker, in failing to describe fully the conditions under which this event occurs, opened the way for inaccurate readings, even of entire works. Its nature becomes clear when the following factors are taken into consideration: (1) the triadic tone which is the goal of motion; (2) the

which is evident in much of his theoretical work. I therefore find myself at odds with Mr. Michael Mann who has based an extensive article (see footnote 5) upon the thesis that "the dogma on which Schenker's descriptive music theory is based cannot be judged apart from his outlook on music history." In my opinion this is fallacious. The same criterion applied to Freud's outlook on anthropology in relation to his psychological theories would yield curious results indeed.

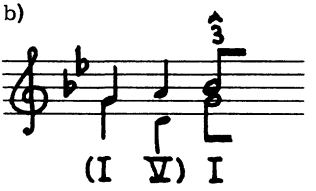
24. In reply to one criticism of the Ursatz, Milton Babbitt has written: "Nothing could be less accurate than Daniskas' characterization of Schenker's method as embodying a 'static' notion of tonality." (op. cit.) Mr. Babbitt refers to John Daniskas' Grondlagen voor de Analytische Voormleer der Musik (Rotterdam, 1948). Leonard B. Meyer echoes Daniskas' erroneous opinion in his Emotion and Meaning in Music (Chicago, 1956).

Example 2.

a)

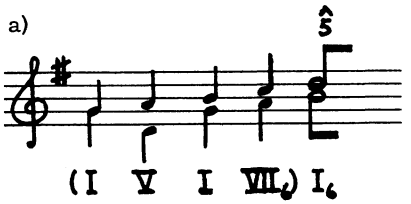



b)

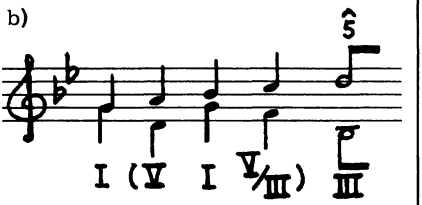



Example 3.

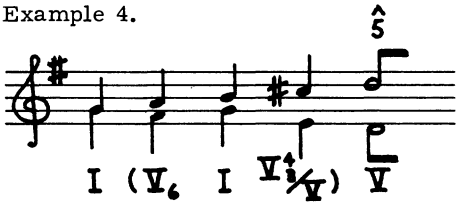
a)



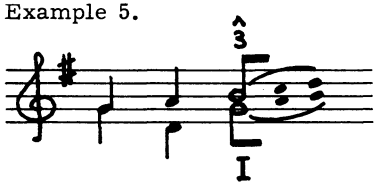

b)




Example 4.




Example 5.



nature of the bass and inner voices (chords) which support the upper voice; (3) the duration of the motion (with respect to tempo, note-values);[25] (4) when $\hat{5}$ is the final tone, the mode. The coherent completion of the space-opening prefix depends upon a motion-tendency usually taught in elementary strict counterpoint: the tendency for a given melodic tone to progress upward or downward to the diatonic tone adjacent to it at the distance of a semitone, provided that the setting (bass and chord) affords proper support, and, of course, in consideration of the functional relationship between tonic and dominant degrees, which may modify this tendency. In amplification, there follows a brief account of the conditions necessary for space-opening motions to $\hat{3}$ and to $\hat{5}$.

Ex. 2 presents models of unprolonged space-opening motions to $\hat{3}$. In both modes the bass and chords which support the ascending motion are I-V-I. Observe the horizontal interval succession in the upper voice of Ex. 2 (major mode); two whole steps. In the absence of semitones, the passing-tone A thus serves to connect G and B without tending strongly toward either one (except insofar as a slight preference is given to the tonic G, the point of melodic closure). But in the minor mode, Ex. 2b), we encounter a different situation. There the horizontal interval succession contains a semitone between the passing tone A and $\hat{3}$. This semitone connection therefore tends to make the ascent to $\hat{3}$ stronger, more coherent in the minor mode.

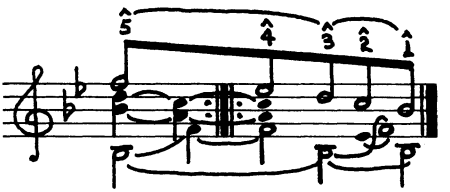
The space-opening motion to $\hat{5}$ entails more problems. In place of the second degree, the fourth degree serves as the connective to the final tone. In the minor mode (Ex. 3b) this degree stands at the distance of a whole tone from both the third and fifth degrees. Thus, there is no obstacle to a strong ascending connection from 4 to $\hat{5}$, provided, of course, proper support is given by bass and chords, such as is shown in the model. However, in the major mode (Ex. 3a) the fourth degree stands at the distance of a semitone from the third scale degree and thus tends to relate <u>downward</u> to that tone, rather than upward to $\hat{5}$. A space-opening motion to $\hat{5}$ therefore requires that the fourth degree be chromatically raised to create the necessary semitone connection between 4 and $\hat{5}$. This chromatic inflection is usually supported by a secondary dominant chord, so that the vertical situation at the conclusion of the motion is $\frac{5}{V}$ (Ex. 4). You may ask how one accounts for a motion of this kind in the major mode which ascends to the fifth degree, but which does not include the raised fourth degree. Ex. 5 provides the answer: the motion is then read as a space-opening to $\hat{3}$, followed by a prolongational motion within the third above $\hat{3}$.

It appears that Schenker was somewhat aware of the problem of the space-opening motion to $\hat{5}$ in the major mode, for in <u>Der Freie Satz</u> he makes the following comment: "The space-opening motion to $\hat{5}$ is particularly well-suited to the employment of the raised fourth degree. By this means the $\hat{5}$ achieves a special effectiveness, especially when the chromatic alteration in the foreground results in a modula-

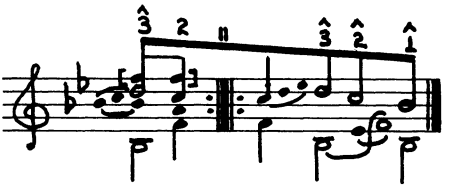
25. This motion presents no problems when it is executed rapidly and receives no support from bass and chords.

tion[26] to the key of the dominant." However, he did not realize that the alteration constitutes a necessary condition for the motion. This particular deficiency in Schenker's work may serve to explain an instance of an incorrect and somewhat arbitrary reading, his analysis of the well known Air in B-flat by Handel, which first appeared in Der Tonwille in 1924 and was subsequently included in abbreviated form in Der Freie Satz where it is used to illustrate both a special foreground melodic technique (unfolding) and also uninterrupted, or one-part form.

Example 6.




Example 7.




Ex. 6 presents the minimal sketch which Schenker used in Der Freie Satz (Fig. 103, 6). Directly below this, in Ex. 7, I have constructed a different sketch of the same work, which, on the basis of the conditions set forth above for the space-opening motion to $\hat{5}$ in the major mode, is a more accurate representation of its structure. A brief comparison follows. In Ex. 6 (Schenker's sketch) the first tone of the fundamental line is $\hat{5}$; in Ex. 7 it is $\hat{3}$. His misreading is to be attributed to his failure to recognize that the motion to $\hat{5}$, lacking the raised fourth degree, is not conclusive. But, having decided that the fundamental line operates within the space of a fifth, he then forces his reading to conform. He locates the descending passing-tone $\hat{4}$, which is required to close the fundamental line, on the third beat of m. 6, and thus shows an uninterrupted descent: $\hat{5}$-$\hat{1}$. Compare Ex. 6 with Ex. 7. The latter shows a space-opening motion to $\hat{3}$, not to $\hat{5}$. The triadic fifth degree is represented directly above the main melodic tone $\hat{3}$, and enclosed in brackets to show that it belongs, conceptually, in the register an octave lower. After the double-bar, C undergoes a diminution, which spans the third, C—E-flat. This E-flat (m. 6) serves as an upper adjacent tone to the restated $\hat{3}$ which follows. According to Schenker, the E-flat in question is the passing-tone $\hat{4}$ in the descending fundamental line, clearly an erroneous reading, since it is exclusively an adjacent tone in the foreground. Whatever passing-tone implications it may have are so weak as to be inconsequential. Therefore, on the basis of this reading, the form of the piece is two-part ($\hat{3}$-$\hat{2}$ $\hat{3}$-$\hat{2}$-$\hat{1}$), not one-part as Schenker maintained.

It is to be hoped that, as Schenker's work becomes more widely recognized, serious music theorists will make further applications of

26. By "modulation" Schenker means "tonicization," which is conceptually quite different from the erratic changing of key usually designated by the former term.

his ideas.[27] With the view to indicating the direction such applications might take, I should like to devote the following paragraphs to a discussion of five unsolved problems in music theory, indicating in each case how Schenker's ideas could contribute toward a solution. Four of these deal with music written prior to 1910,[28] and a single, but very important general problem involves music written after that year. Here, then, are the five problems:

1. Constructing a theory of rhythm for tonal music.

Hardly any aspect of tonal music is more obscure than that of rhythm. To be sure, we have a number of studies on the subject, but for the most part they are lengthy descriptions of obvious surface events, which take prosodic practices or exotic music as points of departure, or metaphysical treatments which have little significance to the theorist whose proper concern is with the structural role of that which we ordinarily designate as "rhythmic," those relationships which determine the temporal ordering of compositions. (There is, of course, a certain amount of verbal self-deception involved in the separation of rhythmic from tonal events.)

Schenker's work in the theory of rhythm was fragmentary and oftentimes obscure; yet the basis of his thought, particularly as expressed in Der Freie Satz, is clear: the concept of structural levels. Consider, for example, these unique and provocative statements:

> In the fundamental structure, rhythm exists no more than it does in a cantus firmus exercise.
>
> Only when linear progressions arise within prolongations in the upper and lower voices of the middleground does it become necessary to counterpoint the voices against each other in a rhythmic ordering. All rhythm in music comes from counterpoint, only from counterpoint.
>
> In the middleground every individual sub-level has a unique rhythm which is in accord with its contrapuntal content. Thus rhythm progresses through various prolongational stages until it reaches the foreground, just as do meter and form, which also represent consequences of a progressive

27. The extent to which Schenker's ideas have already been absorbed, perhaps unconsciously in some instances, is truly remarkable, particularly in view of the failure of his work to gain acknowledgement. When, for example, Mr. William Reynolds writes of the possibility of "reducing the melody to a more skeletal background in which the actual structural linear movement is laid bare," and points out that "many melodies may be bi-linear or even poly-linear," surely we can detect Schenker's influence. (William Reynolds, "Re: Unity in Music," Journal of Music Theory, II:97-104.)

28. I have selected 1910 as the approximate year when such major composers as Stravinsky, Bartok, and Schoenberg began to abandon the system of triadic tonality in their works.

contrapuntal differentiation.[29]

Schenker's highly significant observations suggest the following questions, which might well serve as points of departure for extended studies in rhythm: (1) At what structural level do rhythmic events begin to determine the tonal structure of a given work? (2) What is the nature of the relationship between the constituent rhythmic levels in a given work? Clearly, the analytic techniques developed by Schenker would be indispensable to the answering of these questions. And his structural concepts would be invaluable, if, as one might reasonably expect, such investigations were to lead to the formulation of a general theory of rhythm in tonal music.

2. Determining the sources and development of triadic tonality.

A technical history of triadic tonality has yet to be written.[30] When it is, it will have to demonstrate historical continuity in other than poetic terms. Again, here, the concept of structural levels is invaluable. If, for example, it can be shown that underlying structural levels in works from various periods carry similar tonal events, and that these have undergone an orderly transformation, a major step will have been taken toward the establishment of the convincing historical picture which is now so clearly lacking.[31]

Within this large problem are smaller ones. For example, the development of chromaticism has not yet been traced in any detail. The facile generalizations which have circulated for years in the musicological literature and the statistical studies of chromaticism which are based upon very rudimentary concepts of musical structure offer little of value to serious music theorists.

Schenker, particularly in his Jahrbücher and in Der Freie Satz, laid the groundwork for fruitful studies in chromaticism. Indeed, his fundamental principles have already been accepted — but not acknowledged — by all but the most atavistic circles. Thus, it is now generally recognized that the meaning of a particular chord is dependent upon its function in a particular context. But it has not yet been widely recognized that Schenker long ago specified the functions of various contexts.

29. Der Freie Satz, par. 21, my translation.

30. To the best of my knowledge there are only two books which deal directly with this subject, and they only in part: Felix Salzer, Sinn und Wesen der abendländischen Mehrstimmigkeit (Vienna: Saturn Verlag, 1935) and Armand Machabey, Genèse de la Tonalité Musicale (Paris: Richard Masse, 1955). Schenker's own treatment of the subject is, in my opinion, desultory.

31. Felix Salzer's Structural Hearing (New York: Charles Boni, 1952) and Adele Katz' Challenge to Musical Tradition (New York: Alfred Knopf, 1945) both contain information pertinent to this problem. A striking instance of Schenker-derived analytic technique revealing a unique relationship between works of different periods is to be found in Ernst Oster's article, "The Fantasie-Impromptu: a tribute to Beethoven," Musicology, I:407-29.

Even with regard to diatonic chords, Schenker early in his career recognized the necessity for clearly differentiating harmonic from contrapuntal functions. In his counterpoint book (1911) he drew the following sharp analogy to those theorists who are unable to make this distinction:

> We are all familiar with the way a child carries on with its doll. Now the doll is this or that friend, now an aunt — in short, everything that the child needs for its play is represented by the doll. The child speaks to the doll and receives an answer (one, of course, provided by itself). The theorists who write "harmony textbooks" carry on in the same way with their "tone-dolls." Here the doll represents this or that "degree progression," now only a suspension, here a "harmonic degree," there this or that voice-leading, in short, to everything that they demand, and in whatever condition they demand that it be, their tone-dolls answer, yes![32]

3. Gaining information about compositional technique.

As long as the only determinants of compositional choice are thought to derive from the composer's desire to achieve a balance between "unity" and "variety" or some other similarly profound impulse, very little information about his technique can be gained. As a result the serious student is often led to believe that the composer's technical grasp of music is either quite ineffable or is "obvious," even "mechanistic," and he remains unaware of that which can be gained from a deeper study of compositional problems. The composer stands to benefit from information about compositional determinants not so much by making direct applications to his own work as by coming to understand how underlying structural forces shape compositions, what it means for a work to begin to establish its own terms, its own conditions. To the non-composer such knowledge is also advantageous. He becomes more aware of the unique characteristics of the work, he comprehends the reasons for deviations from an established pattern, unusual rhythmic occurrences, etc.

Unfortunately, Schenker's views regarding compositional technique often have been misunderstood. Because he writes freely about compositional choice, occasionally drawing inferences with respect to the way in which ideas develop, he sometimes offends those who for one reason or another deal with the problem of compositional choice only at the most trivial level. But although he did not hesitate to set forth requirements for a good composition, he did not presume to tell anyone how to go about composing. And despite the implication of its title, Der Freie Satz (free composition) is an instructional book not on composition, but on analysis. Let there be no doubt on this point, Schenker was outspokenly against any efforts to use the concept of fundamental structure for the purpose of composing music. To him, music study, represented at the highest level by analysis, makes an essential contribution

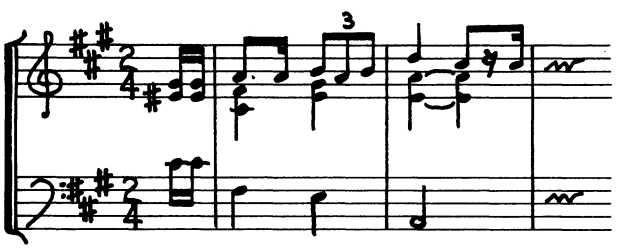
32. Kontrapunkt (Halbband I), p. xiii.

to composition, but the latter activity lies only in the province of the gifted and is essentially unteachable.

Schenker approached compositional problems mainly through the principles of strict counterpoint, in the conviction that these underlay the intricate works of the major composers. This belief was supported by his knowledge of the training received by Haydn, Mozart, Beethoven, and others. Nowhere is this fundamental aspect of Schenker's thought more apparent than in the first and third sections of Der Freie Satz, which comprise a condensed reinterpretation of principles formulated years earlier in Kontrapunkt.

With the aid of this methodologically valuable norm, Schenker was able to investigate many aspects of compositional technique which otherwise would have remained inaccessible. Again and again he demonstrated that foreground detail, with its multiple meanings, could be understood only in relation to the middleground and background, which provide definition in accord with the principles of strict counterpoint. As a study technique he occasionally considered alternate solutions in order to reveal compositional determinants more clearly. To illustrate this, I shall undertake to explain the structural factors which determined Schumann's choice of the secondary dominant ($A_7$) chord in mm. 12-13 of his song analyzed earlier (Ex. 1). (To avoid misunderstanding, I point out that this discussion is not directly related to Schenker's sketch.) In view of the strong tendency of the preceding C-sharp-major chord to progress and an F-sharp-minor (VI) chord,

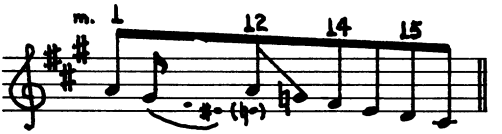
Example 8.




the $A_7$ chord seems abrupt, has the effect of a discontinuous element, and therefore requires special explanation. True, it leads to the upper-voice adjacent tone, D, an essential foreground element which, in accord with the rhythmic pattern already established, as well as with the consistent association of the adjacent-tone motive, D—C-sharp, with the verbs in the poem, must occur on the downbeat of m. 13. But, as shown in Ex. 8, the alternate solution, this tone could also be reached without the aid of the $A_7$ chord. This indicates that the upper voice did not determine the choice of the $A_7$. When the alternate solution (Ex. 8) is considered, the more important function, hence the raison d'être of the $A_7$, becomes clear. This alternate passage omits the $A_7$ but retains the essential features of its immediate context: the preceding C-sharp chord and the upper-voice D which follows it. The alternate begins by fulfilling the tendency of the C-sharp chord to resolve to F-sharp minor. From there it moves through an E chord back to $\frac{3}{I}$ in m. 14.

What features of the original passage are most noticeably missing from the alternate? First, it is apparent that the upper-voice D on m. 14 lacks the support of the IV chord, which was impossible to reach logically beginning from the VI. But the most striking omission in the alternate version is the chromatically descending inner-voice, which, in the original version, begins with the G-sharp carried by the C-sharp chord, moves through A to G-natural in the $A_7$ chord, descends to F-sharp—F over IV, and finally moves through E to D—C-sharp over $V_7$-I. Observe that this striking inner-voice line concludes in m. 15 with a statement of the characteristic upper-adjacent-tone motive.[33] We can therefore infer that Schumann selected the $A_7$ chord in question not only because of its secondary-dominant relation to the IV at m. 14, but primarily because the $A_7$ chord carries G-natural, an essential component in the long descending line just described. Using Schenker's concept of structural levels as a criterion we can therefore say that the contrapuntal-melodic reason for the $A_7$ chord is more important here than the harmonic (fifths relationship) reason. Obviously, expression of the secondary-dominant relationship does not require the presence of the seventh, G; but by "more important" I mean here that G is a component in a configuration which belongs to a higher structural level

Example 9.




than does the secondary-dominant relationship.[34] In amplification of this, Ex. 9 shows how the inner-voice component A is stated at the beginning of the song, prolonged by the lower adjacent 7 tone, G-sharp, in the middle section, then in m. 12 begins the descent to C-sharp. In Schenker's terms, this linear progression is the composing-out of an interval, not a random interval, but in this case the composing-out of the sixth, A—C-sharp, the inversion of the triadic third which controls the upper-voice motion of the entire song. This third, stated vertically at the very outset of the piece, is also expressed in the bass succession, III-I, a means of associating the outer voices at all levels.

In attempting to ascertain the major compositional determinant in this instance, I do not disregard the influence of the form of the poem and its internal associations. Doubtless Schumann wanted to set the words, und vor deinem, which begin the last section, with the same C-sharp used at the beginning with the words, aus meinem. Also I do not overlook the fact that the chromatic descent of the inner voice in the final measures repeats the inner-voice and bass diminutions of the middle section, an additional means of unification.

33. As in mm. 3-4 (7-8) Schumann here requires the accompanist to interlock the hands in such a way that this motive is naturally stressed.

34. Here I disagree with Schenker's sketch, which shows the $A_7$ chord supporting $\hat{3}$. In my opinion $\hat{3}$ is supported by the tonic triad in m. 14.

Not only are Schenker's concepts and techniques valuable in the study of such details in completed works, but they also provide the means for interpreting compositional sketches, rough drafts, revisions, notated improvisations, etc. For example, many of Beethoven's otherwise perplexing sketches become clear and significant when they are examined with reference to a thorough structural analysis. At present a large amount of such material awaits investigation by music theorists.

4. Improving theory instruction.

We all recognize that the serious student of music today is faced with an enormous task. He is expected to know the literature and structure of the music of the past, as well as the ever increasing literature of the present with its diverse and often problematic compositional systems. In order to relieve this situation we would do well to emulate science education, where, thanks to the continual refinement of concepts, students cover traditional material more and more efficiently. In my opinion, the intelligent and serious music student could cover the basic, traditional curriculum within two years, and then go on to more advanced studies in music of all periods — provided the instructional methods and concepts used were adequate to the task. Here Schenker has much to offer. Consider, for example, the unreasonable amount of time ordinarily spent on the relationship between fugal subject and answer. But when these are regarded as thematic expressions of the tonic-dominant relationship — within a single key[35] and when necessary adjustments in the answer are explained in terms of relationships between structural levels, the student quickly grasps the underlying principles and is able to cope intelligently with details. Instruction of this kind, extended to all aspects of traditional theory, could lead to far greater efficiency without sacrificing thorough coverage.

In more general terms, ineffective theory instruction often can be attributed to a failure to recognize the importance of non-consecutive relations. The student's hearing is directed only to the immediate connections in the foreground, which provide an exception to every rule, and he soon comes to feel that concepts derived from his theoretical studies are incapable of explaining with any degree of precision the organization of actual compositions. Schenker has suggested that Brahms so vehemently repudiated his formal studies for this very reason. He makes clear that the significance of Brahms' collection of examples of parallel fifths and octaves[36] lies in the composer's recognition of the contradiction between a theory which dealt with immediate relationships only, often of a transient nature, and his own highly refined sense of hearing which encompassed large spans.

5. Understanding the structure of problematic modern works.

It is no secret that Schenker detested modern music. Indeed, his

35. The notion of "modulation" is particularly confusing to students here.

36. Johannes Brahms, Octaven und Quinten, edited by H. Schenker (Vienna: Universal, 1933).

concern about the current state of affairs in music seems to have been an important motivation for all of his writings. At the beginning of the first volume of his Kontrapunkt (1910) he declaims:

> We stand before a Herculaneum and Pompeii of music; musical civilization is obstructed! The tonal material itself is destroyed, those essentials of music which were created by artists, who, working with their own resources, went far beyond the meager indications of the overtone system.[37]

Nor did time modify his opinion. Some sixteen years later in Jahrbuch II he undertook an analysis of a passage from Stravinsky's Piano Concerto, concluding:

> My analysis gives me the right to say that Stravinsky's work, despite its slight suggestions of linear progressions, which has to do with the folk-like elements it contains, is altogether bad, inartistic, and unmusical.

In view of these and other statements, it seems contradictory that Schenker's work should contribute significantly to the solution of certain problems in advanced contemporary music. Yet, his general concept of structure, apart from his specific formulations of triadic tonal events, lends itself to modern thought regarding music.[38] For example, the idea of the "totally organized" work, now become quite fashionable, was clearly set forth by Schenker (but without reference to Webern!). He even recognized the structural role of orchestration and demonstrated this in his analyses, notably in those of the Scherzo to Beethoven's Third Symphony and the G-minor Symphony of Mozart. Relevant to this, he writes in Der Freie Satz:

> In the masterworks, orchestral colors are not combined according to (the composer's) mood, and applied haphazardly. They are subject to the laws of the total composition.[39]

---

37. Schoenberg, in the first edition of his Harmonielehre (1911), took exception to this as follows: "Dr. Heinrich Schenker (I hear) writes in a new counterpoint book of the art of composition, and maintains that no one can compose any longer. Certainly Dr. Schenker is a thinker whom one must take seriously, (even though nothing correct is to be gained from it), for he is one of the few who strive for a system. And if he makes the same mistake as others, one must nevertheless value him for other merits. But what he says is hardly better than the remarks of the senile about 'the good old days!'" In the 1922 edition Schoenberg changed his remark about "nothing correct to be gained" to read "although he brings nothing to full clarity." Schenker reciprocated by attacking Schoenberg's Harmonielehre in Jahrbuch II (1926).

38. Roger Sessions recognized this as early as 1935 when he wrote: "Although Schenker remained bitterly hostile to all that is contemporary in music, his work and his ideas nevertheless embody very clearly certain aspects of contemporary musicality..." ("Heinrich Schenker's Contribution," Modern Music, XII:170-8.)

39. Der Freie Satz, 2d edition, 1956, p. 34. (My translation)

More specifically, Schenker's theory established two basic requirements for analysis which are applicable to modern music: first, an analysis should undertake to explain the essential relationships within a composition, their genesis, ordering, interaction and relative importance to the parts and to the whole of the work; second, as part of the analytic undertaking, a representational means and vocabulary should be developed which are in accord with the unique characteristics of the work.[40]

But beyond these values — the point of view and the general requirements — Schenker's theory offers a specific study-tool, the reduction technique, which can be used to good advantage in analyzing certain modern works.[41] The long-range goal of such analytic studies should be kept in mind. If it can be demonstrated that contemporary compositions, particularly those of the problematic 1910-1925 period, reveal significant similarities at other than the surface level, and if these similarities can be interpreted in an orderly fashion, while at the same time accounting satisfactorily for differences, a beginning will have been made toward a genuine technical history of contemporary music.

Many of the works composed during this period have achieved the status of standard repertoire items, insofar as a modern work can achieve that status. And yet, by and large, even these "standard" works are little better understood now than they were at the time of their composition.[42] It has been demonstrated that Schenker-derived concepts and techniques can be used to good advantage here, provided each work is examined in its own terms. This means that, even though Schenker's concept of structural levels is used, the general content of each level cannot be predicted, as it can in tonal works where we know in advance the underlying organizational principles and the function of detail.

Obviously there is a danger of reading triadic characteristics into a work which is based upon non-triadic premises. Therefore, the

---

40. Schenker was aware of the problem of verbalizing about music. In Der Freie Satz he remarks: "As a verbal connection, a name always indicates at once a logical connection and an essential unity!" Thus, he rejected the terms "melody," "motive," and the like, because he felt that they lacked significance with respect to more comprehensive events such as "fundamental line."

41. Applications to modern works have already been made in the books of Salzer and Katz cited earlier and in Contemporary Tone-Structures by the present writer (New York: Bureau of Publications, Teachers College, Columbia University, 1955).

42. The familiar terms, "atonal," "polytonal," etc., do not constitute explanations, but are merely labels, somewhat shopworn, which usually serve only to obscure really significant structural events. Unfortunately, the currency of these terms has given them the aura of genuine technical language with the result that many people, even some musicians, are under the impression that the organization of contemporary music is fully comprehended.

initial problem in the analysis of a work from the period under discussion is to discover a clue which will reveal its basic structural terms. To illustrate the application of Schenker-derived techniques toward the solution of this problem, I present here a partial analysis of Debussy's La Cathédrale Engloutie (1910), a work which is familiar and relatively uncomplicated, but which deviates considerably from triadic norms, despite certain external triadic characteristics.

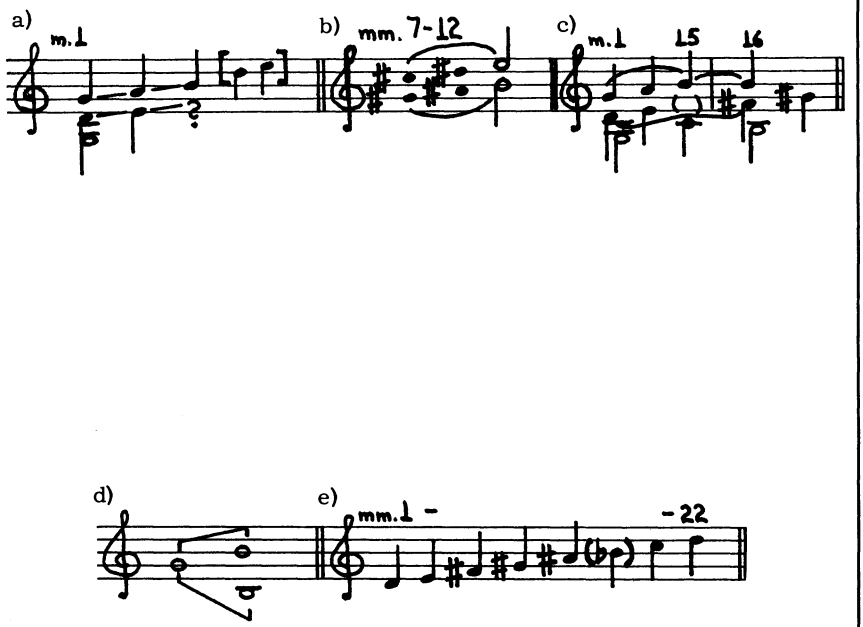
A careful examination of the first measure, in the course of which all doublings are eliminated to show the basic components in their most condensed form, yields an incomplete succession of parallel fourths above a sustained "bass" note (Ex. 10a). The fact that the lower line in this succession is incomplete compared to the upper, suggests that it will eventually complete itself, that is, E will ascend to F-sharp, thus paralleling completely the motion of the upper voice. This provides a clue, at least, to the melodic structure. The tendency of E to ascend is strengthened with each repetition and with the placement of the succession D-E in the upper register at the end of every melodic group; yet the implied motion is not completed. At measure 6 the E achieves a certain stability, supported by the bass E, and embellished by C-sharp and D-sharp. To clarify the structure of this section, the melodic tones are arranged vertically, in accord with Schenker's concept of polyphonic melody. The result is a succession of parallel fourths like that at the beginning. This succession prolongs the central tones, E and B (Ex. 10b). Observe that, unlike the opening succession, the lower voice of the succession is complete.

At m. 13 the bass continues its descent, arriving at C. Following this, the initial parallel fourths succession is repeated (mm. 14-15), reinforced here by another parallel succession, A–B, added in the lower staff. Finally at m. 16, the melodic connection from E to F-sharp, suggested at the very outset, is completed, and as the inner voice ascends to F-sharp, the bass descends to B. Ex. 10c) summarizes the first section of the piece showing how the implied motion is ultimately realized. This sketch also shows that the F-sharp is followed by G-sharp, suggesting a further ascent by whole steps, which, of course, does occur.

A comparison of the horizontal and vertical intervals tells us something about the interaction of the various structural levels as the piece unfolds. A number of symmetries appear. To illustrate, Ex. 10d) represents the third within which the upper voice operates, and the sixth, its inversion which is simultaneously composed-out in the bass. In contrast to the thirds, which are associated with the horizontal unfolding at the middleground level, the vertical fourths belong exclusively to the foreground. The most active element in the composition, on the basis of this incomplete analysis, is the ascending inner voice which demands attention at the very outset. Ex. 10e) shows how it slowly unfolds a whole-tone progression over the span of an octave. Thus, to use Schenker's terms, the structural content of the upper voice at the middleground level is an ascending whole-tone scale.

There are diverse elements at the foreground and middleground

Example 10.



levels further on in the piece which require explanation before the background can be discussed intelligently. I shall not take time for that here, in the hope that the partial analysis already given has served its purpose: the demonstration of Schenker-derived concepts and techniques applied to problematic modern music.

It would be foolish to assert that Schenker's concepts and techniques can be applied with equal effectiveness to all music. For example, the reduction technique is not suitable for the analysis of 12-tone music, nor is it required there in order to explain structure. The 12-tone system has its own history, its own terminology and analytic technique.[43] Certainly, as music continues to be composed, performed, and studied, music theory is responsible for developing new concepts and new analytic procedures which will contribute toward the understanding of that music. But at the same time, we should recognize that the possibilities for applying Schenker's technique have by no means been exhausted.

There are those who feel that Schenker's concepts are of questionable validity because they do not apply to all music. The implications of such an unreasonable criterion are disturbing, since a general theory which would apply to music in the many periods even of occidental history, each with its own structural principles and extensive literature, would very likely be of such a rudimentary and primitive nature as to be — for all practical purposes — valueless. (It may well be that a theory of this kind is already implicit in the musicological literature of the past quarter-century.)

In many respects Schenker's work provides us with a model of what the work of the music theorist should be — one searches in vain for a comparable effort. And yet, Schenker did not regard himself as a theorist or as a musicologist, but rather as an artist. He has indeed the artist's traits of courage and perseverance combined with intellect and insight (which we also associate with the true scientist), traits which set him apart from the bigoted pedant who, all too often in Schenker's day, bore the name of music theorist. It is to be hoped that as his ideas are more widely understood and applied, the image of Schenker as a visionary will be replaced by one of a unique, original and highly gifted person. For the conceptual framework which he expounded, as well as for the vast amount of information about specific musical structures which he provided, he deserves recognition by all intelligent musicians.

---

43. Milton Babbitt has made original, highly significant contributions to the theory of 12-tone music. See, for example, his article "Some Aspects of 12-tone Composition," The Score, 12:53-61. Important work has also been done by George Perle. See his book review in the Journal of the American Musicological Society, X:55-59.