TERMINOLOGY VARIANTS IN THE PEDAGOGY OF NONHARMONIC TONES

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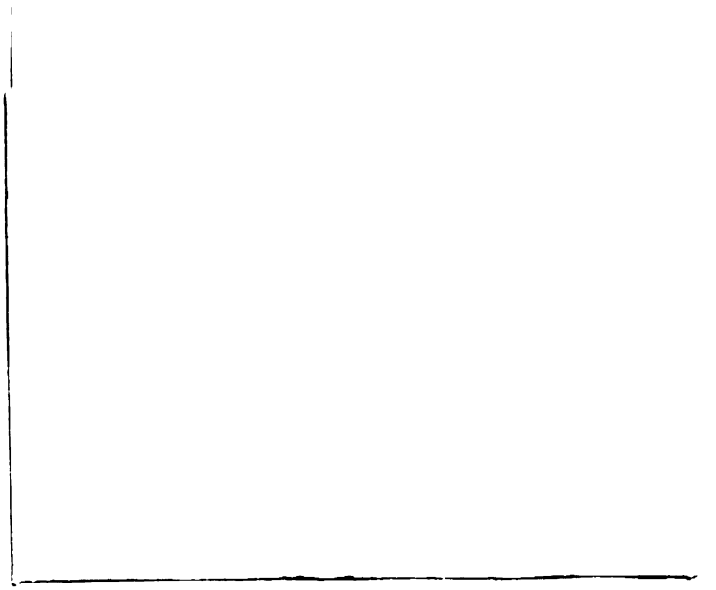

ABSTRACT

TERMINOLOGY VARIANTS IN THE
PEDAGOGY OF NONHARMONIC TONES

by Glen Cyrus Stewart

This dissertation was a study of nonharmonic tone nomenclature, classification, and terminology variants used in music theory instruction during the first sixty years of the twentieth century. The study was limited to harmonic practices of the eighteenth- and nineteenth-century styles of musical composition.

Two hypotheses were established for the study:

1. Confusion exists in the analysis of nonharmonic tones, and in the classification and nomenclature used in the pedagogy of music theory.

2. A systematic classification of nonharmonic tones can be established to avoid the use of multiple terms and definitions, and to provide a basis for a standardized nonharmonic tone nomenclature.

The procedures used for the study include the examination of over one hundred harmony textbooks used for theory instruction during the first sixty years of the twentieth century. From this bibliography a select bibliography of thirty-two books was chosen which represents adequately the variety of nonharmonic tone nomenclature and analysis presented by music theorists for pedagogical purposes. A search was made in periodical literature and other sources for material relating to the analysis of nonharmonic tones.

A study was made in two areas related to the analysis and the pedagogy of nonharmonic tones to provide additional background for the study:

1. Symbols of communication in music employed in the instructional process.

2. Nonharmonic tones as a function of dissonance in the evolution of eighteenth- and nineteenth-century styles of musical composition.

The major findings of the study were summarized as follows:

1. A variety of terms is used to identify nonharmonic tones. No consistent relationship was found between the devices described and the terms or symbols used to represent them.

2. More variety exists in the definition of nonharmonic terms than in the choice of terminology itself.

3. No two theorists appear to agree entirely in the choice of terminology and the definitions of nonharmonic tones.

4. Most theory textbooks contain no systematic presentation of nonharmonic tones.

5. The confusion of nomenclature and the use of multiple meanings of terms is most extensive in those textbooks which present no systematic classification of nonharmonic tones.

6. Recently published textbooks devote more space and attention to nonharmonic tones and present them in a more systematic manner than older textbooks. There is no general agreement in matters of classification and nomenclature.

7. Nonharmonic tones can be analyzed and presented in a systematic manner to facilitate instruction and learning.

8. A systematic classification of nonharmonic tones is a

prerequisite to a consistent nomenclature.

9. A system of classification using a melodic approach and departure analysis is the most inclusive system upon which to base a nomenclature.

10. Terminology can be defined to avoid the use of a term for more than one basic device and to avoid multiple definitions of terms by basing definitions upon an approach-departure classification of nonharmonic devices.

A classification of nonharmonic tones based upon an approach-departure analysis is proposed. A terminology derived from historical usage and authority is suggested. A definition is given for each term, based upon the classification.

The results of the study indicate that a consensus of music theorists is needed to establish a standardized nomenclature and analysis of nonharmonic tones. It is suggested that a consensus might be established through the offices of one of the national professional organizations concerned with music education in the United States.

TERMINOLOGY VARIANTS IN THE PEDAGOGY OF NONHARMONIC TONES

By

Glen Cyrus Stewart

A THESIS

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Music in general--and melody in particular--has been considered, since time immemorial, a supernatural, magical medium. Many great philosophers in different civilizations have given their attention and directed their thoughts toward this elusive phenomenon. The more definitions of music you know, the more you wonder what music really is. It seems to fall into the category of life itself. It seems to have too many "X's".

Joseph Schillinger

PREFACE

The purpose of this study is to investigate the many different ways in which nonharmonic tones are presented and explained in present day teaching of music theory. The study is limited to nonharmonic tone classifications and terminology which are used in presenting the harmonic styles of the eighteenth and nineteenth centuries. The author has observed in his teaching of music theory over a period of years that there are many names for the same device, and also that one name may denote several different devices. Further, he has noted various discrepancies between the definition and explanation of some devices and the example quoted for their clarification. In short, he has observed almost as many systems of nomenclature for nonharmonic tone devices as there are textbooks of theory. An attempt to summarize these terminologies will be made, and also an attempt to resolve them into a logical categorization will be made--one that will have historical, logical, and semantic integrity and support. It is hoped that this study might contribute to the pedagogy of music theory by providing a basis for the elimination of diversity in classification and terminology, and lead to the elimination of confusion in the mind of the teacher and the student in the comparative study of textbooks.

To provide a basic frame of reference for this study, two related areas of concern to the classroom instructor in the presentation of nonharmonic tones have been investigated.

1. The nature of musical communication in the teaching of music theory.
2. The historical evolution of nonharmonic tones as a primary aspect of dissonance in harmonic textures.

Through a clarification of the principles and concepts underlying the phenomenon of nonharmonic tones in harmonic textures of the eighteenth and nineteenth centuries, it is believed that understanding can be achieved more readily, and with greater economy of time and energy.

A preliminary bibliography of more than one hundred treatises and textbooks concerned with traditional harmonic practices of the eighteenth and nineteenth centuries and containing specific references to nonharmonic tones has been examined for the purpose of this study. The preliminary bibliography has been prepared from various library card catalogs, Cumulative Book Index,[1] Subject Guide to Books in Print,[2] and advance publication notices of book publishers. An extensive search of periodical literature for related articles also has been made, with particular use of The Music Index,[3] and Readers' Guide to Periodical Literature.[4]

From the preliminary bibliography an annotated bibliography of

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[1]Cumulative Book Index: A World List of Books in the English Language (New York: Wilson, 1928-date).

[2]Subject Guide to Books in Print: An Index to the Publishers' Trade List Annual (New York: Bowker, 1957-date).

[3]The Music Index (Detroit: Annual Cumulation Information Service, Inc., 1949-date).

[4]Readers' Guide to Periodical Literature (New York: Wilson, 1905-date).

thirty-two books in the English language has been selected to represent the diversity of nonharmonic tone explanations and the variety of terminology in use. This bibliography, with each entry numbered for convenient reference, is found in Appendix I. The author believes this bibliography adequately represents the degree of diversity currently found in the nomenclature and explanation of nonharmonic tones, and that a more extensive working bibliography would only tend to make organization of the necessary data more complex. Preference has been given to those books in which some attempt has been made to organize the presentation of nonharmonic tones, to those which are listed in Books in Print,[1] and to new publications announced in advance publication notices. The textbooks which treat nonharmonic tones in some organized fashion generally are found indexed as "Harmony" books, as the presentation of nonharmonic tones usually is given in harmonic rather than contrapuntal contexts. The explanation of this orientation of nonharmonic tone presentations will be discussed in Chapter II in relation to concepts of musical texture.

The instructional process in music theory depends heavily upon systems of symbols and nomenclature for purposes of description and analysis to aid in the development of an understanding of musical phenomena. The intrinsic difficulty of describing musical phenomena is greatly magnified by the use of terminology about which there is much disagreement, by terms which are applied in a vague and ambiguous manner, and by terms which have multiple meanings. One is led to the

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[1] Author-Title Series Index to the Publishers' Trade List Annual (New York: Bowker, 1948-date).

conclusion that either musical structures tend to be ambiguous, or that the organization of subject matter in many textbooks is inadequate for its purposes. The author has undertaken this study with the hypothesis that nonharmonic tone devices are subject to rational explanation which will permit more efficient and effective instruction.

ACKNOWLEDGMENTS

I wish to acknowledge my indebtedness to Dr. Milosh Muntyan of the College of Education for his support and administrative supervision of this study.

Appreciation is extended to Dr. H. Owen Reed for valued suggestions in many details of the study, including the benefits of his research in nonharmonic tones, and to Dr. Douglas Campbell, whose patient encouragement and direct supervision of the study has been a source of much enlightenment.

A special word of appreciation is extended to my wife, Mae, whose encouragement and assistance has made the entire project possible.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

COMMUNICATION IN MUSIC

Communication in music between composer and listener occurs in two ways--directly, through musical sound itself, the aural representation of creative ideas, and indirectly, through verbal and non-verbal symbols which are the visual representation of musical sound. Non-verbal symbols are the elements of music notation; verbal symbols are the terminology applied to the elements of music, including such factors as pitch, duration, intensity, tonal and chordal relationships, and schematic representations of form. These symbols of communication might be classified as primary--musical sounds themselves, and secondary--verbal and non-verbal symbols which represent musical sounds.

In the direct communication of subjective ideas through musical sound between the composer and the listener, particular combinations of sounds evoke emotional, or affective responses in the listener. These responses vary greatly with the individual, his mood of the moment, and the particular psychological associations he brings to the listening experience.

Susanne Langer suggests that symbolism in the art of music communicates an awareness of subjective feeling and emotion by giving form to inward experiences. 'A musical person thinks of emotions musically. They cannot be discursively talked about above a very general level. But they may nonetheless be known--objectively set forth,

publicly known--and there is nothing necessarily confused or formless about emotions. As soon as the natural forms of subjective experience are abstracted to the point of symbolic presentation, we can use those forms to imagine feeling and understand its nature."[1]

Because of the diversity of backgrounds and experiences of individuals and the difficulty of symbolizing emotional experiences, attempts to communicate accurately the meaning of affective musical experiences are intrinsically difficult at best. For this reason, the understanding of music sometimes is regarded as being relatively obscure of access. This apparent obscurity frequently is increased by the confusion of objectives in the teaching of music appreciation courses.

The teaching of "appreciation" frequently is confused with the teaching of facts about music, contributing further to the sense of obscurity of music. Alan Walker describes appreciation as a psychological condition of unconscious identification with the unconscious musical ideas expressed by the composer--a communion of unconscious minds. This occurs independently of any knowledge about music, and the professional musician is not necessarily better equipped than the layman to communicate through musical sounds.

> The man in the street has proved time and again that given equal opportunities of assimilation his response to music can be just as vigorous as that of the professional. Indeed, the closer we examine current notions regarding musical education the more ridiculous many of them seem. No one becomes a doctor in order to enjoy better vision. Similarly, you do not experience music any more intensely when you have become an 'educated' musician. This is one of the establishment's sacred cows and it has been my experience that nothing can budge it. . . .

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[1] Susanne K. Langer, Philosophical Sketches (Baltimore: The John Hopkins Press, 1962), pp. 62-63.

> Perhaps when the findings of modern psychology have made a greater impact on our thinking we shall see the situation as it really is. Until then, we shall continue to understand music despite our educators rather than because of them. But if analysis does not play a crucial role in our response to music it nevertheless satisfies a positive need that the professional feels. He may still wish to know why he knows. This is the primary reason for his education and constitutes the only difference between him and the musical layman who simply knows. Once we have accepted the view that the role of analysis is to explain the experience, and not to prepare the ground for it, we see its province quite clearly.[1]

Studies of direct communication of ideas through musical sound, the primary type of symbolism, thus are properly relegated to the fields of psychology and aesthetics. The realm of pedagogy in music theory, while necessarily based upon direct, or aural communication, relies heavily upon the secondary aspect of musical communication, the use of non-verbal and verbal symbols, to provide a relatively precise description and analysis of the structure and texture of music. The grammar of music lends itself to much more precise description and analysis than do the affective responses to music. A specific technical device can be described referentially by a word which represents the device, to the extent that the word is tied down by definition. Consequently the teacher of music theory must have a judicious concern for terminology as a form of symbolism. The use of terminology having consistent meanings is essential to the formulation of concepts and the development of understandings. Verbal expression of musical concepts depends upon the meanings of words. When a vague or ambiguous terminology is used, efficient instruction becomes more difficult.

Traditional semantic theories treat communication as the original function of language and of all forms of symbolization. In recent

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[1]Alan Walker, A Study in Musical Analysis (New York: The Free Press of Glencoe, 1962), p. 150.

years the general semanticists have reminded us that we use our words too loosely, and that there is too wide a margin between the word and the thing which the word represents. The importance of commonly understood symbols and terminology in the understanding of the arts is suggested by Susanne Langer in her recent essay, On a New Definition of "Symbol". "Any sign, . . . by being conventionally assigned to any object, event, quality, relation, or what not that it is to signify, bestows a conceptual identy on that designated item."[1]

In scientific discourse it is necessary that words be referential, as it is the thing which the word represents which is important, rarely the word itself. Much confusion in music results from an attempt to identify the language of emotional expression with the language of musical science and craftsmanship. It is in terms of technical structure that music theory must be discussed, even though music theory is concerned also with emotional meaning.

The theory teacher is engaged directly in structuring the grammar of music and in establishing the terms of its vocabulary as a technical language. Attempts to structure and systematize the study of traditional harmony for efficient classroom presentation have advanced with a continuous evolution since music theorists began to have a primary concern with pedagogy about the beginning of the nineteenth century. One of the first attempts to establish a systematic classroom presentation of harmony occurred at the Paris Conservatory at this time.[2]

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[1] Langer, p. 62.

[2] Donald Wheeler Packard, "Seven French Theorists of the Nineteenth Century" (unpublished Ph. D. dissertation, Department of Theory, University of Rochester, 1972), p. 308.

The official textbook adopted was a work written by C. S. Catel, Traite d'Harmonie.[1] Before this time each teacher taught his own concepts of theory without the advantage of any generally accepted or standardized pedagogical procedures to guide his students. The Catel book represents the beginning of a continuing development of textbooks designed for classroom instruction in theory, a development which has continued with increasing enthusiasm to the present time. Music theorists, in their efforts to interpret the practices of musical composition of the past to each new generation through class instruction, came to have a primary concern with the development of new textbooks. The evolving flow of texts contributed to the solution of many pedagogical problems with increasing ingenuity through new organization of material, new classifications of tonal relationships, new refinement of terminology, and new instructional procedures to meet changing educational needs.

In discussing pedagogical problems in the teaching of the arts, Wager and McGrath state, "The student of art enjoys much greater freedom of subjective evaluation and interpretation than either the physical or the social scientists, but the intellectual processes by which he deals with reality are no less important than those employed by other disciplines."[2] While the behavior of musical phenomena does not deal with exactly measurable characteristics, as do the sciences, analysis and description require a precise terminology devoid of ambiguousness and contradiction. In this respect the writers of texts and treatises on music theory have been particularly lacking in agreement.

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[1] Charles Simon Catel, Traite d'Harmonie (Paris: Hougel et Cie., 1802).

[2] Willis J. Wager and Earl J. McGrath, Liberal Education and Music (New York: Bureau of Publications, Teachers College, Columbia University, 1962), p. 9.

The area of music theory which seems to have benefited least from the efforts to systematize and standardize the definition of harmonic materials for instructional purposes is that of nonharmonic tones. The study of harmonic and melodic devices used by composers during the past three centuries leads inevitably to a consideration of nonharmonic tones as a vital aspect of musical texture. Nonharmonic tones will be regarded in this study as dissonant tones used as particular devices to create tension and motion in music. Various aspects of the term "nonharmonic" will be considered in Chapters II and III.

An examination of the music theory books in general use during the twentieth century reveals about as many different methods of explaining nonharmonic tones as there are textbooks. Much confusion currently exists in the variety of terms used, in the divergent and contradictory explanations presented, even within the same textbook, and the complete lack of any standardized classification or definition of terms used. Examples are readily found in which the music illustrations used contradict the definition of the particular device presented in the text. To add to the confusion, multiple meanings sometimes are used for the same term. Examples of variants in terminology will be presented in Chapter III and Chapter IV.

The problem of effective communication has been a growing concern of contemporary educators and philosophers. A number of present-day linguistic philosophers regard a study of the way words are used as the best way, if not to solve, at least to understand problems.[1] An

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[1]Review of Fly and the Fly-Bottle, by Ved Mehta, Time, July 12, 1963, p. 98.

examination of the different ways a word is used provides an insight into all that can be known about its meaning. Communication in musical theory and pedagogy has been handicapped by the lack of a precise vocabulary of terms which have commonly accepted definitions, and which lend themselves to logical classification. The use of vague, loose terms generally has proved inadequate for effective instruction. The problem is being recognized by a number of the authors of recent textbooks. However, little evidence can be found of any comprehensive investigation of the problem that might provide a satisfactory basis for its solution. No standardized nomenclature of nonharmonic tones and no standardized terminology has been agreed upon.

A study by Marvin Chidester of some basic terminology used in the teaching of music theory shows that many of the textbooks in use today do not define the technical terms used for musical devices, and that frequently some terms are used in such a way as to indicate more than one meaning for the same term.[1] Chidester presents the hypothesis that the lack of precise definition of fundamental terms constitutes a serious problem in the teaching of basic and advanced theory classes. Chidester selected a preliminary list of sixty commonly used musical terms for consideration. From the preliminary list of sixty terms he selected a final list of thirty-three terms for use in his study.[2] This study presents no explanation or basis for the choice of the particular terms used, and, as do other similar investigations, merely

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[1] Marvin E. Chidester, "A Study of Some Fundamental Musical Terms." (Unpublished Master's Thesis, Sam Houston State Teachers College, Huntsville, Texas, 1953).

[2] It is of interest to note that the preliminary list of terms contains six commonly used nonharmonic tones, and that the final list contains only one--the organ point--which has the least diversity of definition.

describes the problem of terminology variants in some detail without presenting a basis for its solution.

The analysis of the function of musical language necessitates what may seem a dubious procedure from a subjective point of view, the breaking down of an indivisible unity into its component parts. The first step must be the examination of small-step examples of the total functioning of musical language. Deryck Cooke observes that by isolating the elements of musical expression and identifying the basic terms of musical vocabulary, we prepare the way for a larger understanding of musical communication.[1] It is at this point, the identification of basic terms of musical vocabulary and the assigning of precise definitions to the various elements of musical structure, that the field of music theory is confronted with much vagueness in communication.

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[1]Deryck Cooke, The Language of Music (London: Oxford University Press, 1959), p. 40.

CHAPTER II

CONSONANCE AND DISSONANCE

The relation between dissonance and consonance has long been a concern of musical theorists and scholars, and is a basic consideration in the study of nonharmonic tones. Dissonance and consonance are manifestations of life processes evident in almost every aspect of human experience. The harmonic texture of music contains some balance of dissonance and consonance which is usually characteristic of a composer or of the period in which the music was written. No clear-cut differentiation between dissonance and consonance can be made, except possibly through codification of the musical usages found in a particular style or period, and the arbitrary acceptance of a dividing line based upon accoustical considerations. In general, dissonance is created by those elements of harmony which give a feeling of tension or disturbance, and consonance is created by those elements which give a feeling of relaxation and rest. Dissonance and consonance can be thought of in analogous terms which represent energy in contrasting states of activity, such as dynamic and static. A frequently used, but inadequate, analogy is found in the terms unpleasant and pleasant. All such terms are extremely limited for precisely definitive purposes, as the terms indicate only relative or subjective relationships, as do the terms dissonance and consonance themselves. Analogous terms suggest criteria for making subjective judgments about the relationshi

of dissonance and consonance, but the problem of description remains primarily a subjective matter.

As musical textures become more and more complex, the problem of establishing a workable definition of dissonance becomes more difficult, and increasingly involved in the psychological phenomenon of affective musical experience. The particular balance between dissonance and consonance found acceptable in the musical textures of any given period is a determining factor in the evolution of musical style. The history of Western music records a continuous striving for a satisfying ratio of dissonance and consonance, a relationship which is never fixed or finalized. The human ear exhibits varying degrees of tolerance with regard to the amount of dissonance it finds acceptable. Thus, no absolute standard of dissonance and consonance can be established at any given time, with the result that the definition of any satisfactory relationship is wholly relative.

Medieval tradition attempted to define intervals as dissonant or consonant in accordance with philosophical speculations regarding the relationship of tones. Early dispositions to rely upon the ear as the foundation of judgment are found, however, with the gradual disappearance of philosophical attitudes to music and the increased reliance upon practical judgment of the musician. Johannes Tinctoris (c. 1435-1511), who compiled the first music dictionary about 1495, defined a concord as "the mixture of two pitches, sounding sweetly to our ears by its natural virtue."[1] He defines a discord as " a mixture

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[1]Johannes Tinctoris, The Art of Counterpoint. Translated and edited by Albert Seay. (American Institute of Musicology: Musicological Studies and Documents, No. 5, 1961), p. 123.

of two pitches naturally offending the ear."[1] Reliance of judgment solely upon the ear of the listener in the realm of consonance and dissonance presents problems of definition. The descriptions by Tinctoris were further complicated by a loose employment of terminology.

Tinctoris classified discords as simple and compound, the semitone being simple, the tone and all other discords being compound. He formulated some principles derived from the practice of composers of his time which foreshadows a classification of nonharmonic tones found today, in terms of approach to and departure from the consonant tone. He states as a basic principle that a discord should be placed after the concord nearest to it, as for example, a second after a unison, and must be followed by a concord, either ascending or descending, only one or two steps away. Tinctoris recognized that music had changed considerably during the first forty years of his life, and that these changes provided the foundations of his treatise. At the same time he seemed concerned that some composers of the period, particularly Johannes Ockghem, took liberties with the "rules" of permissible arrangement of discords. Referring to the deviations from his principles found in the opening bars of the "Patron" of the Missa De bello se siet, by Ockghem, Tinctoris states, "And whatever this most excellent composer and careful selector of sweetness has done, I leave to the judgment of all those who hear it."[2] The final arbiter of discord here is subjective judgment.

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[1] Ibid., p. 129.

[2] Ibid.

In establishing his "rules" for the arrangement of discords, Tinctoris takes into account the aesthetic concepts of his time as well as the scientific data available to him. He conveniently fails to recognize that he formulated his "rules" by breaking earlier ones, and that the same academic process might well be applied to his own conclusions at a subsequent time. The fact that Tinctoris recognized the conflict between aesthetic and scientific concepts of dissonance, however, is of continuing significance.

An interesting hypothesis is advanced by Mosco Carner that every period or generation had its own norm of dissonance, and considered its own norm as absolute.[1] Each new norm is achieved by the gradual assimilation of added dissonance to the accepted patterns and ways of listening. What in one generation is regarded as harsh dissonance becomes accepted as relative concordance in the next generation of listeners. As this process continues in our contemporary culture, the ultimate ability of the human ear to adjust or acclimatize to dissonant sound combinations appears to be without limit. The requirements of tension and relaxation in tonal music are met by a relative relationship of higher and lower degrees of harshness or discord.

A recent observation regarding the problem of dissonance by Alan Walker points out the inadequacy of the laws of musical phenomena to explain dissonance.

> Even in the most elementary ways 'theories' which are universally held among musicians fail in the most lamentable fashion to explain some of the most typical phenomena of musical language. Dissonance is one such phenomenon. It is

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[1] Mosco Carner, Twentieth Century Harmony (London: Joseph Williams, Limited, 1942), p. 3.

> no exaggeration to say that theorists have no proper definition of this term and therefore cannot satisfactorily explain the effect. The academic notion of dissonance is a peculiar one, and is in conflict both with aesthetics and acoustics. On the one hand it appears to take no account of the fact that our attitude toward's dissonance habitually 'mellows' with time; the field of consonance is continually enlarging at the expense of dissonance. On the other hand, it labels sounds 'consonant' or 'dissonant' according to how they are written. Thus a major sixth is consonant, but a diminished seventh is dissonant in spite of their aural identity. Why? Because of the major sixth's habitual harmonic context. The harmonic contexts change.
>
> The nature of dissonance must be examined from both the psychological (aesthetic) and the scientific (acoustic) point of view. As a matter of fact, we stand in real need of a theory of dissonance at the present time. Helmholtz's 'beat' theory is generally regarded as the scientific explanation of dissonance (insofar as it attempts to get behind music this is proper musical theorizing), but it conflicts with what we know to be aesthetically true. According to Helmholtz, fourths are more consonant than thirds because they 'beat' less. No musician can accept this. Whatever science says he ought to feel, he knows that thirds are more satisfyingly complete than fourths. It is not without interest that in early medieval times the exact reverse used to be true, thirds being more dissonant than fourths. In the meantime our reactions have changed, and there is no reason to suppose that they will not go on changing.[1]

All interval and chordal combinations can be arranged in sequence as to their relative strength of dissonant quality. Arranging the pure frequency ratios of the more common musical intervals in accordance with the growing complexity of their ratios, we arrive at the following sequence:

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[1] Allan Walker, _A Study in Musical Analysis_ (New York: The Dial Press of Glencoe, 1962), p. 40.

TABLE 1

[illegible] BY RATIOS OF FREQUENCY

Unison	1:1
Octave	2:1
Perfect Fifth	3:2
Perfect Fourth	4:3
Major Sixth	5:3
Major Third	5:4
Minor Third	6:5
Minor Sixth	8:5
Major Second	9:8
Major Seventh	15:8
Minor Seventh	16:9
Minor Second	16:15

One might conclude from the above table that the dissonant quality of intervals increases as the frequency ratios of the interval become more complex. Mathematical theory fails to take into account the psychological aspects of musical phenomena. The human ear exhibits greater tolerance for dissonance and "out-of-tuneness" than do the instruments of the modern physics laboratory. Various studies have shown, for example, that the ear does not choose the perfect fifth of pure intonation over the perfect fifth of equal temperament. The former interval has a ratio of 3:2, while the latter interval has a ratio of 439:293, an extremely dissonant interval from the accoustical point of view. This choice of the theoretically dissonant interval cannot be ascribed to cultural conditioning, even among players of keyboard instruments, but has to do with psychological considerations as yet without satisfactory explanation.

A very recent series of experiments indicates that the discriminating ear of the musician does not choose either just intonation or equal temperament in producing melodic intervals when an infinite choice of pitches is available, but actually prefers interval ratios

which are extremely more dissonant than those of the theoretical tunings determined by the mathematician.[1] Using an instrument to furnish an infinite number of pitch divisions within the octave, the ear tends to select interval ratios in a melodic line which are considerably more dissonant than the intervals provided by the theoretically correct tunings of the just scale or equal temperament. These alternate tunings chosen as correct by the ear have been termed "referential tunings" by Boomsliter and Creel, who conclude that "The error lies with the yardstick, not with the musicians,"[2] and that the court of last resort is the ear of the musician, and not the measuring devices of the physicist.

It is observed that all melodies contain an inherent tension and motion toward a destination, starting and ending with the feeling of relaxation which is normally the established tonic. The authors present the hypothesis that "extended reference is the characteristic organization of melody; it is possibly the chief source (although certainly not the only source) of the tension and relaxation that go into a melody."[3] The investigation of "extended reference" is presented as a new approach toward the formulation of a theory of melody construction, which, to date, has not been developed satisfactorily by music theorists.

This previously unrecognized phenomen, providing new evidence

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[1]Paul C. Boomsliter and Warren Creel, "Extended Reference: An Unrecognized Dynamic in Melody," Journal of Music Theory, Vol. VII, No. 1 (Spring, 1963), pp. 2-22.

[2]Ibid., p. 4.

[3]Ibid., p. 17.

that musicians are musically motivated to create tension and relaxation in music through various devices, gives further indication that non-harmonic tones may have evolved as a rational means of creating and rotating tension and relaxation through pitch variation.

The tension-relaxation concept of dissonance, being a concept of relative meaning, has long been considered inadequate and too general for theoretical purposes. In the explanation of harmonic intervals, various attempts have been made to formulate clear and exact principles to define degrees of dissonance more precisely for pedagogical purposes. Because of the extreme difficulty of defining consonance and dissonance as principles, the terms have been applied in a more or less arbitrary way to specific interval relationships found in the overtone series, and the inversions of these intervals.

A classification of consonant and dissonant intervals based upon the overtone series is given by Roger Sessions,[1] and is shown in Table 2.

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[1]Roger Sessions, Harmonic Practice (New York: Harcourt, Brace and Co., 1951), pp. 15-16.

TABLE 2

A CLASSIFICATION OF CONSONANT AND DISSONANT INTERVALS

Consonant Intervals (those intervals which are found within the triad)

1. Intervals based on the fundamental:

Perfect Octave	(1st and 2nd partials)
Perfect Fifth	(2nd and 3rd partials)
Major Third	(4th and 5th partials)

2. Inversions of the above:

Perfect Fourth	(3rd and 4th partials)
Minor Sixth	(5th and 6th partials)

3. Intervals formed by overtones other than the upper octaves of the fundamental:

Minor Third	(5th and 6th partials)
Major Sixth	(3rd and 5th partials)

Dissonant Intervals (those intervals which are not found within the triad)

1. Seconds and Sevenths (both major and minor)

2. Tritones

3. All other augmented and diminished intervals

The above classification may be summarized as follows:

Consonant Intervals

All perfect intervals
All major and minor thirds
All major and minor sixths

Dissonant Intervals

All major and minor seconds
All major and minor sevenths
All augmented and diminished intervals

Historical Considerations

Dissonance may occur in the horizontal, or melodic relationship of tones, and also in the vertical, or harmonic relationship of tones. The mathematical ratios of tones in the tempered scale provide only the octave as a pure concordant relationship, with varying degrees of discord present between the other intervals, depending upon the mathematical ratio between the tones considered. Thus a single melodic line in the tempered scale contains varying degrees of dissonance in tone relationships. These dissonant relationships occur in succession and only imply harmonic relationships in reference to the implied tonality of the melody. The melodies of plainsong, created without any concept of harmonic context, provided only a very limited awareness of dissonance resulting from the choice of melodic intervals used. Dissonance, or tension in monophony was expanded primarily through pitch variation in the development of ornamentation and decoration of the basic melodic line in melismatic fashion.

Dissonance having a more direct and immediate impact than melodic dissonance can occur only between two or more simultaneous sounds. The awareness of dissonance became a more conscious experience when monophony gave way to the relative independence of two voices in partwriting, beginning roughly about the year 900 A.D. Before about 1600 A.D. composers wrote entirely contrapuntally, although a rudimentary kind of harmonic and tonal framework is implicit in the counterpoint of medieval composers from about the ninth century. An increasing awareness of the harmonic aspects of simultaneous musical sounds pointing toward the development of a harmonic tonal system is found in the thirteenth century. Harmony developed out of counterpoint, with the

growing sense of tonality providing a new concept of tonal organization.

The cadential formulae of early counterpoint led to an awareness of fixed relationships between chords. The cadential relationships of traditional harmony and the relationships between the normal chord progressions around a tonal center were established by the end of the sixteenth century. Individual combinations of notes as isolated phenomena had no harmonic significance until they were related in a musical context to other chords and to a tonal center. Most of the diatonic triads, including the major and minor chords, and the chords of the sixth, were derived from the interval technique of polyphony. The practice of using musica ficta, or "false notes," and discords latent in the older contrapuntal technique, provided the basis for chromatic chords. The practice of musica ficta included the use of B flat, F sharp, E flat, C sharp, and G sharp by about 1325. The development of the modal system into major and minor keys led to the establishment of fixed relationships of chords to a tonal center, which developed to a high degree of perfection in the seventeenth century. The dividing line between the contrapuntal process and the harmonic process is not in any way clear-cut, but for historical convenience usually is placed at about the year 1600.

The history of harmony has been divided in a general way by Allen Garrett into three major periods:[1]

(1) Pre-Tertian Harmony (c. 900 - c. 1450)
(2) Tertian Harmony (c. 1450 - c. 1900)
(3) Post-Tertian Harmony (c. 1900 - the present)

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[1]Allen M. Garrett, An Introduction to Research in Music (Washington, D. C.: The Catholic University of America Press, 1958), p. 49.

Pre-tertian harmony consists of chordal combinations based primarily upon the so-called perfect intervals of the unison, octave, fifth, and fourth. Tertian harmony begins with the establishment of the triad as the principal chordal entity, which remains preeminent until the twentieth century. Post-tertian harmony encompasses the experimentation of twentieth century composers in deliberate attempts to discover new combinations of sounds to replace those of tertian harmony, such as chords based upon superimposed fourths instead of thirds.

As the development of chord and key relationships evolved from the sixteenth century onward, harmonic rhythm became an important feature of musical texture, characterized by an important change of harmony on the first beat of each measure. Harmonic dissonance and its resolution gave strong implications of rhythmic pulse, the use of which parallels the development of measured music.

The new concepts of tonal relationships became very attractive to composers, resulting in the abandonment of pure contrapuntal techniques and the more rapid development of harmonic technique as the primary concept of musical texture. Bach and Handel were among the great exponents of diatonic harmony, and widened its scope considerably. The culmination of this harmonic style may be represented by the collection of 371 chorales harmonized by J. S. Bach.[1] Bach made extensive use of chords having one or more notes foreign to the prevailing diatonic key, without losing a sense of the existing tonality. Many of the chromatic chords which became accepted as orthodox until the end of the nineteenth century were used by Bach both as pure

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[1]Johann Sebastian Bach, 371 Vierstimmige Choralgesänge (Leipzig: Breitkopf & Härtel, n.d.)

chromatic chords and as modulatory chords. Their origin is essentially contrapuntal and may be traced back to modal polyphonic procedure and the notes introduced by musica ficta.

Nonharmonic Tones

The evolution of musical style during the eighteenth and nineteenth centuries has paralleled and is identified with the increasing use of more and more dissonance. The acceptable balance between dissonance and consonance at any particular time is relative, and is determined by a constantly changing perception of what constitutes satisfactory sound combinations. This psychological condition exists in the musical experiences of cultures as well as in those of individuals.

The tension-creating relationships of tones in traditional harmonic textures is considered the basic characteristic of Western music by Deryck Cooke. "The expressive basis of the musical language of Western Europe consists of the intricate system of tensional relationships between notes which we call the tonal system."[1] The concept of tension-relaxation in tonal harmony provides the basis for an explanation of the function of nonharmonic tones as devices which enhance and enlarge the expressive basis of the musical language.

The origin of nonharmonic tones, as the origin of chord structures, may be traced back to modal polyphonic procedure. Their origin is essentially contrapuntal. The improvisatory art of embellishing a basic melodic line in early vocal and instrumental music was an extension of Western methods of music-making. In the West this tradition

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[1] Deryck Cooke, The Language of Music (London: Oxford University Press, 1959), p. 40.

was responsible for the practice of using ornaments and embellishments, with the use of increasingly precise symbols and notation to indicate in a relatively exact manner the composer's intention. The contrapuntal art of the eighteenth century achieved a fine balance in the combining of melodic ornamentation in the form of nonharmonic tones with the vertical texture of harmony.

The use of nonharmonic tones in the eighteenth century evolved from the reconciliation of two forms of texture, found in twelfth-century manuscripts and later perfected by Bach, combining intuitional improvisation with musical reasoning. These textures are defined and illustrated concisely by Edmund Rubbra.

> These two forms are, respectively, organum (not to be confused with earlier types of parallel movement in fourths or fifths) and conductus. The former is a texture of a slow-moving lower part coupled with ornate upper parts . . . , the latter a texture of two or more parts that have no rhythmic independence. The former orientation led to fugue and indeed to all rhythmically independent melodic textures, and the latter to the Bach chorale and the modern hymn-tune where the desire for clarity of words forces a non-independent rhythmic scheme.[1]

Sixteenth- and seventeenth-century composers used both organum and conductus as alternate textures, as a device for achieving change and variety. The alternate use of these two textures is illustrated in Weelkes's madrigal, In Black Mourn I:[2]

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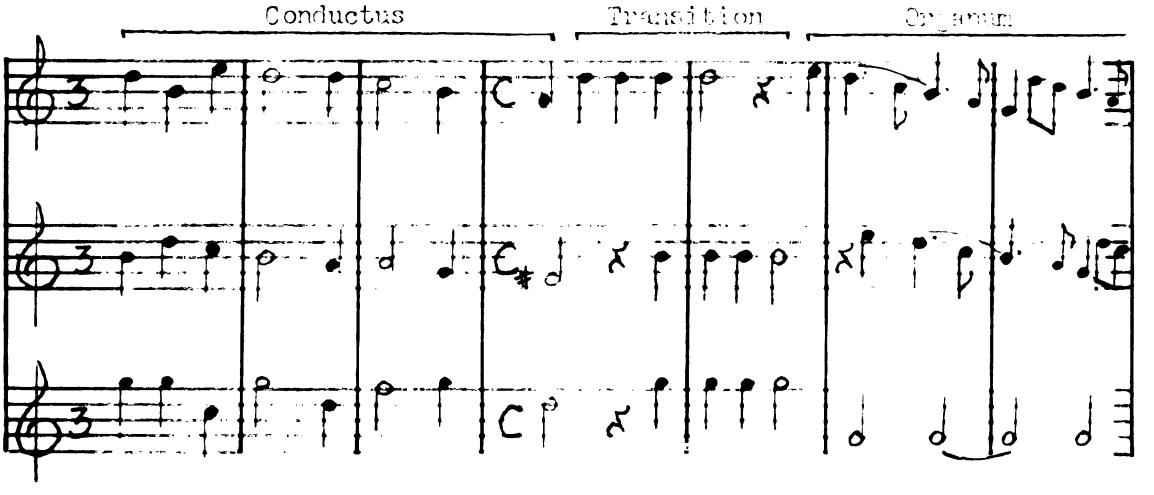
[1]Edmund Rubbra, Counterpoint (London: Hutchinson University Library, 1960), p. 25.

[2]Ibid., p. 26.

Example 1.



Nonharmonic tones[1] were derived from the two fundamental aspects of texture, namely, melodic movement and harmonic movement. Melodic considerations suggest one category of nonharmonic tones, such as passing tones, neighboring tones, and escape tones. Harmonic considerations, the movement of one chord to the next, suggest a second category, such as suspensions and anticipations. Nonharmonic tones, being an integrating feature of texture, became an essential part of the harmonic style of the eighteenth and nineteenth centuries.

Nonharmonic tones, as dissonance, constitute a vital factor in creating a forward motion in partwriting, and contribute to the establishment of pulse or rhythm which impels forward the succession of chords. The mild dissonance of nonharmonic tones creates a psychological need for its resolution and tends to dispel the tendency of the human ear to

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[1]A generic definition of nonharmonic tones is given on page 10. Further discussion of the terms nonharmonic and harmonic will be found in Chapter III.

dwell too strongly on the aesthetic effect of isolated chord sounds perceived without reference to the total texture of which each chord is a part.

Another important function of nonharmonic tones is that of variation. Variation is an important element of continuity in music. Melodic and harmonic variation avoids the stagnation of movement and the monotony created by exact repetition, and at the same time avoids the necessity of a succession of unrelated ideas. The figuration of melodic line is one of the earliest devices of the variation idea. The use of nonharmonic tones as a melodic variation device also increases the possibility of harmonic variation and gives an increased sense of forward motion as a result of added dissonance. The combined use of these melodic and harmonic devices in the texture and rational structure of music provides a tension-relaxation factor which is the basis for the dramatic and emotional content of Western music.

Max Weber points out the importance of recognizing devices of nonharmonic tension in the rational analysis of music.[1] The awareness of nonharmonic devices as rational tension-relaxation patterns helps transform the process of musical production into a calculable process using known means and principles as a basis of composition. Weber considers tones foreign to the basic chord structures as the most important, and indeed indispensable, factor in the dynamics of chord progressions, without which no harmonic concept of music could exist. Weber's concept of the function of nonharmonic tones in tonal harmony is summarized concisely in the introduction of the recent translation by

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[1] Max Weber, The Rational and Social Foundations of Music. Trans. and ed. by Martindale, Riedel, and Neuwirth (Carbondale: Southern Illinois University Press, 1958).

Don Martindale and Johann A. Riedel.

> Harmonic chord music . . . is not only made up from tone relations which are the result of arithmetic divisions manifest in the organization of the diatonic scale, and its intervals, in triads and their respective tonality; it is also influenced by melodic devices of tone proximity. Harmonic chord music is no mere sequence of triads, of harmonic dissonances and their resolutions, but an exchange between the latter and chords which do not stand for a key, a tonality, a fixed function within a tonality, tones whose melodic function has been explained as "passing, sustained, anticipated tones," and "Appoggiaturas" or "Suspensions."[1]

This principle of tone proximity provides a useful description of the function of nonharmonic tones.

Nonharmonic tones are explained by Paul Hindemith as offshoots of chords derived from the basic harmonic structures. "There are many such tones which do not produce independent chords, chord splinters, or offshoots, they might be called. Such tones enrich chords without essentially changing them."[2]

John L. Dunk describes the dissonance of nonharmonic tones as an integral but secondary characteristic of tonality. Tonality gives a primary impression of a definite key while incorporating local dissonance which the ear tends to ignore. Dunk points out that the development of nonharmonic tone usage in traditional harmony has been accompanied by the development of a wide variety of terminology for given nonharmonic devices. He indicates the need for clarification of nonharmonic tone terminology for pedagogical purposes, and suggests a classification in two categories, based upon function, using the terms <u>interpolants</u> and <u>replacements</u>.

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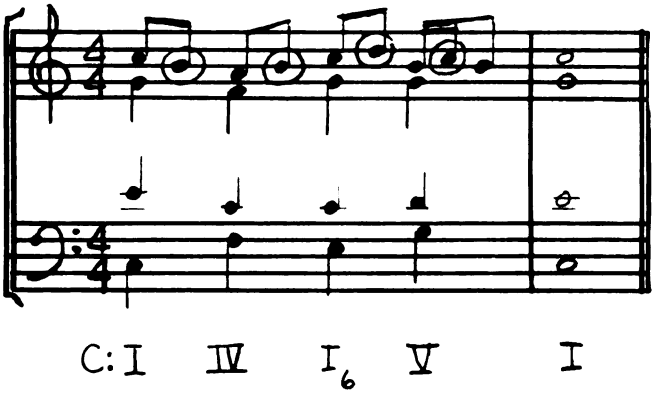
[1] <u>Ibid.</u>, p. xxviii.

[2] Paul H. Hindemith, <u>The Craft of Musical Composition</u> (New York: Associated Music Publishers, 1942), p. 164.

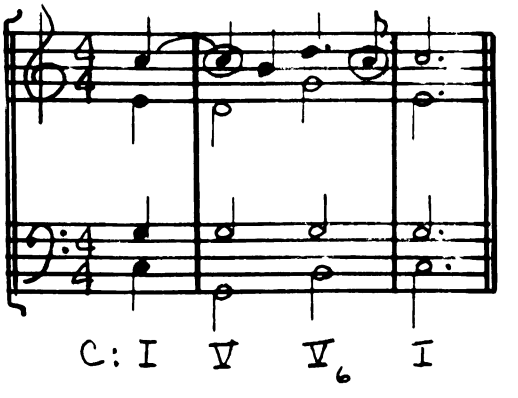
> The aesthetic capabilities of musical notes and intervals are not restricted to the so-called 'essential harmonies' (the First Species of the textbooks) but can blossom forth in what appears to be another dimension than pitch, in two principal ways comprehended under the general name of ADJUNCTS, or self-carrier. The first are termed INTERPOLANTS, which comprise Passing and Changing notes, Auxiliary and Grace notes, Trills, Turns, etc., as well as the lengthy pedal-points, which may be either notes, scale sections, or firm figures of melodic form--in general, anything which appears to make non-chordal relations with the harmony notes. The second are called REPLACEMENTS, in which a passage of two or more notes replaces a single note, giving rise to what are named Suspensions and Anticipations. These occur when a certain harmony note is replaced by another note which may or may not progress to the original, i.e., may or may not Resolve, the replaced note having been sounded, or not, in a preceding harmony (Preparation).[1]

These two classifications may be categorized in general as encompassing the harmonic and the melodic functions of nonharmonic tones. The following examples illustrate Interpolants (Example 2), and Replacements (Example 3).

Example 2.



Example 3.



Dunk's suggested terminology and classification seem to have found little acceptance in subsequent usage, as we find an increasing variety of terminology and classifications being presented in subsequent theory

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[1]John L. Dunk, The Structure of the Musical Scale (London: John Lane the Bodley Head, 1940), pp. 156-157.

books, in those books in which any attempt at all is made to clarify the problems of terminology and classification.

Harmony vs. Counterpoint

The academic question of whether nonharmonic tones should be treated in primarily a contrapuntal or primarily a harmonic context sometimes is posed. For purposes of logical analysis and pedagogical expediency, contrapuntal principles and harmonic principles have traditionally been structured independently according to the historical period being considered. Various viewpoints suggest the value of combining the two pedagogical approaches into a single concept of texture.

Peter Wishart observes that the difference between harmony and counterpoint is very slight. The interpretation of nonharmonic tones is related to harmonic structure, as contrapuntal inflections have had a significant part in the development of chord structures. Historically, "chords arose from contrapuntal procedures and not vice-versa. The fact is that music can never be just harmony or just counterpoint, or just melody, or just rhythm, and any attempt to separate all or any of these things is doomed to failure."[1]

A survey of the musical materials used by composers from Purcell to Brahms, by Ivor Keys, contains the following observation regarding the concepts of harmony and counterpoint in traditional music theory during the period from roughly 1600 to 1900.

> At first sight 'Purcell-Brahms' would appear to constitute a period well-nigh unmanageable in its length and diversity. But in dealing with the materials of harmony and

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[1]Peter Wishart, Harmony (London: Hutchinson's University Library, 1956), p. 17.

> counterpoint subdivision has been impossible. The dividing lines, for example, between 'classical' and 'romantic' harmony disappear on inspection.[1]

The concept of cultural conditioning as a determinant in the approach to the study of music theory is commented upon by Alan Walker:

> Harmonic rather than contrapuntal music nowadays forms the most vital part of a musician's background. In consequence, as we have become increasingly adept at dealing with vertical complexities so we have become increasingly impotent in our grasp of horizontal techniques. Our ability to think harmonically (fostered by music's development in this direction over the past three hundred years) has blunted our ability to think contrapuntally (a faculty that we once possessed very keenly judging by the music of pre-renaissance times). If our harmonic bias inhibits our grasp of counterpoint just the reverse held true in the fourteenth-sixteenth centuries. Renaissance ears were not harmonically perverted to the same extent as our own for they had no strong harmonic tradition. We know that this prevented them from taking in new harmonic techniques without considerable adjustments.[2]

The musical conditioning of contemporary ears to the textures of eighteenth- and nineteenth-century styles, to which traditional pedagogy of theory is oriented, justifies the study of nonharmonic tones primarily in a harmonic rather than a contrapuntal context. The combination of the principles governing both textures in a single approach for classroom presentation becomes much more complex at elementary level of instruction. For pedagogical effectiveness, as well as for purposes of logical analysis, nonharmonic tones are more effectively considered under the study of "harmony." Harmony itself cannot be treated successfully apart from texture, which requires the consideration of both vertical and horizontal aspects in combination. Furthermore, systems

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[1]Ivor Keys, The Texture of Music (London: Dennis Dobson, 1961), p. 9.

[2]Alan Walker, A Study in Musical Analysis (New York: The Free Press of Glencoe, 1962), p. 70.

of analysis use symbols, and symbols simplify by classifying. The traditional symbols and classifications devised for harmonic analysis provide a useful technique for the description and analysis of nonharmonic tones. The use of nonharmonic tones is an essential part of harmonic style, and should be studied and cataloged as such.

CHAPTER III

NONHARMONIC TONES: TERMINOLOGY AND CLASSIFICATION

In order to proceed from musical sound experience and the notation symbols which represent sound to an intelligent identification and understanding of musical phenomena, it is necessary to avoid ambiguous terminology and assign precise definitions to the terminology being used. Furthermore, it is necessary to assign clear distinctions between terms for semantic clarity. This is a basic necessity for effective classroom instruction.

The term nonharmonic[1] is used here to refer to the particular devices of tension-relaxation being considered in this study. These melodic and harmonic devices are characteristic of the eighteenth- and nineteenth-century harmonic style, as exemplified by the collection of 371 chorales harmonized by J. S. Bach.[2] The adjective harmonic is used in the mathematical sense as defined by Webster, "Having relations bearing some resemblance to those of musical consonances."[3] The prefix

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[1]The spelling used here, without the use of a hyphen between the prefix non and the adjective harmonic, is the form given by Webster. The hyphenated spelling, non-harmonic, is found in frequent use, however.

[2]Bach, 371 Vierstimmige Choralgesänge.

[3]Webster's Third International Dictionary of the English Language. Unabridged. (Springfield, Mass.: Merriam, 1961).

non is used in the negative sense of not. Nonharmonic tones[1] are melodic tones which are dissonant to the diatonic triad with which they appear and with which they are heard. Numerous alternative adjectives or variants of the term nonharmonic are found in music theory textbooks. Those found most frequently are foreign, embellishing, ornamental, accessory, unessential, adorning, non-chord, added, decorative, auxiliary, passing tones, and lydones. All of these terms are used generically as descriptive terminology for the nonharmonic devices now in being considered. Some of these terms such as auxiliary and passing, are applied by some textbook authors in a specific sense to a specific device, and at the same time in a generic sense to all nonharmonic devices. This results in considerable ambiguity and lack of semantic clarity.

In a literal sense, the term nonharmonic, if defined as "not part of the harmony," is inadequate to describe the dissonant devices under consideration. The process of combining consonant and dissonant intervals is the very origin of chords; all tones sounding together contribute to the total effect of "harmony." The connotations of terms in music become established through usage, and words have meaning as useful symbols if a common usage is generally accepted.

The term nonharmonic is chosen here because it is found with greater frequency than other terms, and because the adjective nonharmonic implies more specifically than other terms in use the function and the relationship of these devices to the texture of the music. Structure in music is the interrelation of parts as dominated by the

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[1]The word tone is used here to refer to the musical sound, and the word note to refer to the symbol representing the sound (notation). These two terms frequently are used interchangeably and without appreciable distinction, stemming from the general use of the word note in English and the word tone (ton) in German Literature.

general character of the whole. The artistic concept which guides the composer in the creative process results in a texture. Texture in the harmonic style of the eighteenth and nineteenth centuries is the structural quality resulting from the artistic blending of melody and harmony in part-writing.

By definition, nonharmonic tones are dissonant. Dissonance must be defined here in the musical rather than the acoustical sense. The terms consonance and dissonance in the musical sense have no absolute or fixed meanings, being a matter of relative degree. For purposes of defining nonharmonic tones, the following traditional classification of consonant and dissonant intervals, as used relative to the eighteenth- and nineteenth-century style, will be used in this study. This classification of consonances and dissonances has had general acceptance by musicians since the late fifteenth and early sixteenth centuries.

Consonances	Dissonances
Perfect Unison	Major Second
Perfect Fifth	Major Seventh
Perfect Octave	Minor Second
Major Third	Minor Seventh
Major Sixth	Perfect Fourth[1]
Minor Third	Augmented Fourth
Minor Sixth	Diminished Fifth

All augmented and diminished intervals, and enharmonic equivalents of consonant intervals, are regarded as dissonances.

Dissonance which are dissonant components of a vertical chord structure (e.g., the seventh of a dominant seventh chord) are classified

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[1]Accoustically the perfect fourth is recognized, and was recognized in medieval theory, as more consonant than the third or sixth. In organum the fourth was treated as a consonance, but during the harmonic period it has been considered as a dissonance, particularly when it occurs as the lowest interval of a chord.

Roger Sessions classifies the perfect fourth as a consonance because of its position in the overtone series (see page 21).

as rhythmic dissonance, and include such devices as tones added to a regular chord-form simply for the sake of dissonance, without regard for matters of approach and resolution. Dissonances which are foreign to the basic harmony and occur as a result of melodic movement (e.g., the melodic passing seventh) are classified as melodic dissonance.[1] Any dissonance which can be analyzed as a chord tone and contributes to rhythmic stress may be called a rhythmic dissonance; any dissonance which is not part of a vertical chord structure and contributes to melodic movement may be called a melodic dissonance. Rhythmic dissonances resolve in the next chord and not within the same chord. Melodic dissonances resolve either within the same chord or into the next chord.

Nonharmonic tones were shown (see Chapter II) to be an essential part of the harmonic texture of eighteenth- and nineteenth-century music. The term nonharmonic connotes an integral and essential aspect of texture more accurately than do such terms as foreign, accessory, unessential, added, or decorative. Nonharmonic tones are not tones foreign to harmonic texture, or tones added by the composer to a basic succession of chords. They are an integral part of harmonic texture, conceived in a rational manner through the creative process. Nonharmonic tones are created in the process of achieving a balanced relationship between melodic line and vertical, or harmonic structuring of parts in partwriting. The creative process in the style of the eighteenth and nineteenth centuries involves achieving a kind of compromise between melody and harmony which results in a particular style of musical texture.

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[1]The terms 'harmonic' and 'nonharmonic' dissonance are used for rhythmic and melodic dissonance by Ellis Kohs in Music Theory (New York: Oxford University Press, 1961), Vol. I, p. 89.

Nonharmonic tones, as dissonances, are subject to the traditional treatment accorded dissonance since the beginning of early counterpoint. The manner in which a dissonant tone is approached and left melodically is of primary concern in the contrapuntal treatment of melody. This consideration has led some theorists to affirm that nonharmonic tones should be considered strictly as contrapuntal devices, with little or no regard for rhythmic considerations or the harmonic relationship of the dissonant tone to basic chord progression. Other theorists affirm that rhythm, or accent, is the primary basis for classification. Actually, both the melodic and harmonic considerations are necessary for a complete and definitive classification. These two considerations have led to two general concepts regarding the classification and organization of nonharmonic devices for instructional purposes.

The first basis for classification is found in melodic considerations. There are only three ways, interval-wise, in which any tone can be approached and departed from melodically. A tone may be approached (1) by <u>preparation</u>, that is, from a preceding common tone, (2) by <u>stepwise</u> movement, an augmented second or less, and (3) by a <u>skip</u>, an interval of a third or more. A tone may be departed from, in the case of a dissonant tone, <u>resolved</u>, in any of three ways, (1) by continuing as a <u>common tone</u>, the same tone appearing as part of the next chord, (2) by resolving <u>stepwise</u>, up or down a half-step or a whole-step, and (3) by a <u>skip</u>, up or down, of a third or larger interval.

The above possibilities of melodic movement provide a basis for the classification of nonharmonic tones in terms of the particular way these tones are approached and departed from melodically. The

description of each nonharmonic tone must take into account the approach to and the departure from the dissonant tone for purposes of definition and classification. Thus, each definition is concerned with the melodic behavior of at least three tones. The choice of terminology and the definition of each device can be made in functional terms on this basis.

The second basis for the classification of nonharmonic tones is found in the rhythmical position of the dissonant tone in the measure. A dissonant melodic tone occurs either on an accented or on an unaccented beat or fraction of a beat. The rhythmic position of the dissonant tone introduces the vertical, or harmonic aspect of texture as a basis for classification. This basis of classification of the dissonant tone provides only two general divisions or categories, accented and unaccented, which factors in themselves do not take into account the melodic considerations that help to distinguish one device from another. An example of the limitations of the rhythmical distinction alone is seen in the fact that some theorists classify one particular device, illustrated in Example 4, as an appoggiatura,[1] and other theorists classify the very same device as an accented passing tone,[2] or as a neighboring tone.[3]

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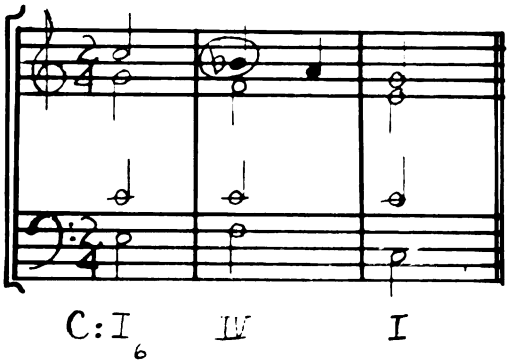
[1]Walter Piston states that "appoggiatura" is the proper term for this device in Harmony (New York: W. W. Norton & Company, 1941), p. 102.

[2]Allen McHose refers to this device as an accented passing tone in The Contrapuntal Harmonic Technique of the 18th Century (New York: Appleton-Century-Crofts, 1947), p. 137.

[3]Paul Hindemith calls this device a neighboring tone, describing it as a suspension without preparation, in Traditional Harmony, 2d. ed. rev. (New York: Associated Music Publishers, Inc., 1944), p. 40.

Example 4.



This type of confusion results when only one basis of classification is used. In the above case, the rhythmic basis is used without adequate regard also for the melodic basis of classification and definition of terms. As harmony and counterpoint are not separable in eighteenth- and nineteenth-century textures, the classification of nonharmonic tones should take into account both melodic and rhythmic considerations. The approach-departure basis of classification derives from the contrapuntal treatment of dissonance, while the accented-unaccented classification derives from the harmonic treatment of dissonance.

Some textbooks present a general classification of nonharmonic tones as diatonic and chromatic. This is a secondary consideration which does not provide an adequate basis for definition. A considerable number of textbooks make no attempt to classify nonharmonic tones for pedagogical presentation.[1] Frequently the introduction of nonharmonic tones is casual and even incidental, with no organized manner of presentation apparent. The following examples of classification illustrate some of the more systematic attempts to treat nonharmonic tones in a logical manner.

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[1]See the Select Bibliography in Appendix I.

Examples of Melodic Classification

Joseph Schillinger uses a melodic classification, describing the technique of nonharmonic tones as the process of evolving leading tones for chordal tones in a given harmonic texture. These leading tones, moving into chordal tones, produce directional units, or elements of motion. "Melodic figuration can be defined as a process of transforming neutral units (chordal tones) into directional units."[1] Schillinger classifies four types of nonharmonic tones (melodic figuration), the first three types satisfying the above definition of evolving leading tones, and the fourth type being a converse technique.

> Type one: suspended tones (suspensions), i.e., tones belonging to the preceding chord and held over; such tones must be moved into an adjacent chordal tone.
>
> Type two: passing tones, i.e., pitch-units inserted between two other pitch-units moving in sequence and constituting chordal tones. Passing tones may, or may not, belong to the same scale as that in which the harmonic continuity has been evolved. In the first case, they are diatonic passing tones; in the second, chromatic passing tones.
>
> Type three: auxiliary tones, i.e., unprepared leading tones selected with no regard to basic pitch scales. They too, can be either diatonic (in which case they have an "ecclesiastic" flavor) or chromatic (in which case they add an extreme lyrical expressiveness, due to sudden intensifications, to the music).
>
> Type four: melodic figuration based on a technique different from the evolution of leading tones; it introduces certain chordal tones (one or more) of the following chord into the preceding chord. This device is known as anticipated tones or anticipations.[2]

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[1]Joseph Schillinger, The Schillinger System of Musical Composition (New York: Carl Fischer, Inc., 1941), Vol. I, p. 569.

[2]Ibid.

Allen McHose states, "The manner in which the non-harmonic tone is derived and resolved will classify it. Because of this, it is necessary to emphasize the importance of the classification of non-harmonic tones; for this is the basis of the concept of preparation and resolution of dissonance."[1] McHose classifies eight categories of non-harmonic tones: (1) Passing Tone, (2) Suspension, (3) Neighboring Tone, (4) Anticipation, (5) Escape Tone, (6) Appoggiatura, (7) Pedal Point, (8) Changing Tones. In describing the individual devices, he makes a secondary classification of passing tones as unaccented and accented, and further describes them as single, double, triple, and quadruple.

H. Owen Reed gives a melodic classification of nonharmonic tones primary consideration, "according to (1) the approach to the nonharmonic tone, (2) the departure from the nonharmonic tone, and (3) the direction of movement. It is only possible to approach a nonharmonic tone (a) scalewise, (b) by preparation (from the same tone), or (c) by leap. The departure from the tone may be made by the same methods."[2] He classifies and defines eight basic nonharmonic devices in terms of the above criteria; (1) Passing Tone, (2) Suspension, (3) Neighboring Tone, (4) Anticipation, (5) Escape Tone, (6) Appoggiatura, (7) Pedal Point, and (8) Free Tone.

Robert Ottman also defines and classifies nonharmonic tones primarily as dissonant melodic tones. "Non-harmonic tones may be identified and classified by the relationship of the dissonance (the non-harmonic tone) to the harmonic tones which precede and follow it.

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[1]Allen Irvine McHose, The Contrapuntal Harmonic Technique of the 18th Century (New York: Appleton-Century-Crofts, Inc., 1947), p. 99.

[2]H. Owen Reed, Basic Music (New York: Mills Music, Inc., 1954), p. 55.

To identify most non-harmonic tones, it is necessary to analyze the three notes involved--a) the harmonic tone preceding the dissonance, called the note of approach, b) the dissonance itself, and c) the harmonic tone following the dissonance, called the note of resolution."[1] Ottman classifies eight types of nonharmonic tones: (1) Passing tone, (2) Neighboring tone, (3) Suspension, (4) Anticipation, (5) Appoggiatura, (6) Escaped tone, (7) Changing tone, and (8) Pedal point. He does give recognition to the fact that nonharmonic tones sometimes are classified according to rhythmic placement.

Examples of Rhythmic Classification

Roger Sessions refers to nonharmonic tones as "Accessory tones," describing them as "tones which do not belong to the chords used, but are introduced for the purpose of gaining a more flowing, more ornate, or more expressive melodic line or texture, or of supplying movement at points where it is required, but not furnished by the chords themselves."[2] Sessions classifies basic types of nonharmonic tones in two general groups, the unaccented, and the accented. He gives recognition to the melodic importance of nonharmonic tones by stating, "It should be clearly understood that the terms 'unaccented' and 'accented' refer here simply to the position of the accessory tone with relation to the tones which immediately precede and follow it."[3] His classification is as follows:

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[1]Robert W. Ottman, Elementary Harmony (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1961), p. 127.

[2]Roger Sessions, Harmonic Practice (New York: Harcourt, Brace and Company, 1951), p. 128.

[3]Ibid., pp. 128-129.

Unaccented Accessory Tones	Accented Accessory Tones
Passing Tone	Suspension
Neighboring Tone (Auxiliary)	Appoggiatura
Anticipation	Pedal Point

Additional nonharmonic devices, including "the ornamental formula known as the Nota Cambiata,"[1] are described by Sessions as extended and freer use of the basic accessory tones classified above.

Ellis Kohs gives an articulate presentation of nonharmonic tones, and considers rhythm and accent the most important elements in the classification of nonharmonic tones.[2] He classifies nonharmonic dissonance as either accented or unaccented dissonance, even though he recognizes accent as not an absolute but a relative matter, varying in degree. His classification and terminology are as follows:

Unaccented Dissonance

- Passing Tone
- Neighboring Tone (Auxiliary)
- Échappée (Escaped Tone)
- Changing Note Group (Changing Note; Nota Cambiata)
- Double Neighboring Tone (Double Auxiliary)
- Anticipation
- Unprepared Neighboring Tone

Accented Dissonance

- Suspension
- Appoggiatura
- Accented Passing Tone
- Accented Neighboring Tone
- Decorated Resolution of Suspension
- Pedal Point (Organ Point)
- Retardation

Leonard Ratner refers to nonharmonic devices as melodic figuration, and uses the unaccented-accented classification. He describes

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[1]Ibid., p. 186.

[2]Ellis B. Kohs, Music Theory (New York: Oxford University Press, 1961), Vol. I, pp. 32-55; 82-86; 106-115.

the unaccented type as that which does not disturb the underlying harmony, consisting of tones which are heard after the chord is struck, and while it sounds.[1] The accented type is described as melodic figuration heard at the point of chord change or at a rhythmic point which is stronger than that of the following note.[2] Ratner obviously intends to show a clear distinction between accented and unaccented dissonance, although his definition of the point at which dissonance begins to "disturb the underlying harmony" would seem to involve a considerable degree of subjective judgment. Ratner's classification of melodic figuration (nonharmonic tones) is as follows:

Unaccented Figuration	Accented Figuration
Neighbor Tone	Accented Passing Tone
Passing Tone	Accented Neighbor Tone
Anticipation	Appoggiatura
Changing Tone	
Escape Tone	

Ratner does give detailed consideration to the manner of approach to and departure from each nonharmonic tone as an essential factor in the definition of each nonharmonic device.

Two Classification Proposals

The many different ways of classifying, explaining, and defining nonharmonic tones has prompted the publication of two pertinent articles in recent periodical literature which propose solutions to the problem of devising an inclusive and systematic presentation of nonharmonic tones. It is interesting to note that one article proposes a melodic basis of classification as primary, and the other article

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[1]Leonard G. Ratner, Harmony (New York: McGraw-Hill Company, Inc., 1962), p. 66.

[2]Ibid., p. 157

proposes a rhythmic basis of classification as primary.

Tom Turner proposes a system based upon the manner in which a nonharmonic tone is entered and left.[1] He suggests that the accent or rhythmic basis of classification is too complex and variable to provide a dependable basis for differentiation. He reasons that there may be some argument about a tone's accent or lack of it, but that, on the other hand, there can be no disagreement over whether a tone is entered or left by step or skip. Since there are only three ways to leave a nonharmonic tone, he suggests the following basic classification and terminology.

TABLE 3

A MELODIC CLASSIFICATION OF NONHARMONIC TONES

Mode of Entrance	Name	Mode of Quitting
Step	Passing Tone Returning Tone	
Leap	Appoggiatura	
Prolongation	Suspension (prolonged chord tone) Prolonged Passing Tone, Returning Tone, Appoggiatura	Step
Step	Escaped Tone	
Leap	Free Tone	
Prolongation	Prolonged Escaped Tone or Free Tone Prepared Suspension left by a leap (un-named)	Leap
Step or Leap	Anticipation	Prolongation

[1]Tom Turner, "A Proposal for a Stabilized Nonchord Tone Nomenclature," American Music Teacher, Vol. III, No. 4 (March-April, 1954), p. 6ff.

Turner comments upon the inadequacy of some of the terminology in general use, but does not suggest more suitable terms, leaving this task to his readers. His objection to accent as a primary basis of classification, which he considers too indefinite, may stem from his failure to define accent in relation to harmonic structure. The apparent simplicity of a system of classification based upon the three possible ways of leaving a nonharmonic tone becomes more complex when all the factors necessary for definition of the terms are considered. The above classification is basically adequate, but it requires further factors of differentiation to distinguish and to define precisely the various devices listed.

Hans Tischler proposes a rhythmic classification in two divisions, stressed non-chord tones and unstressed non-chord tones.[1] Tischler bases his classification upon the observation that "Historically and musically stress is the primary element of differentiation among non-harmonic tones."[2] He notes that stress is a complex concept, there being many means of creating stress in music, but that the application of this concept in respect to nonharmonic tones is relatively simple. The essential distinction to be made is whether the nonharmonic tone is entered simultaneously with the new chord, on a harmonic accent, or whether it occurs on an unaccented beat or fraction of a beat, and is related to a chord previously or subsequently heard. A strong rhythmic accent may give stress to a nonharmonic tone without a change of harmony. The other possible types of accent are unimportant in this context.

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[1] Hans Tischler, "A Systematic Presentation of Non-Harmonic Notes," Music and Letters, Vol. XXVIII, 1957, pp. 45-46.

[2] Ibid., p. 46

Tischler actually combines the rhythmic factor (as primary) and the melodic factor (as secondary) to define the six basic nonharmonic devices enumerated in his scheme. The particular merit of this proposal lies in the use of both factors for definitive purposes. His proposed classification is as follows:

TABLE 4

A RHYTHMIC CLASSIFICATION OF NONHARMONIC TONES

I. Stressed Non-Chord Notes

Name & Symbol	Reached by	Left by	Other name
1. pedal point (P)	prolongation	prolongation	lying voice
2. suspension (S)	prolongation	step down step up	retardation
3. appoggiatura (A)	skip or step	step (down or up)	unprepared suspension

II. Unstressed Non-Chord Notes

Name & Symbol	Reached by	Left by	Other name
4. anticipation (a)	skip or step	prolongation	
5. passing note (p)	step	step in same direction	strict p
	skip	step in same direction	free p
	step	skip in same direction	free p
6. turning note (t)	step	step in other direction	strict t
	skip	step in other direction	free t
	step	skip in other direction	free t escape note echappee

The above classification system takes into account the three essential aspects of nonharmonic tones which must be considered for articulate definition, namely, the rhythmic position of the dissonance, the way in which the dissonance is approached, and the way it is left.

For pedagogical purposes, the definition of each nonharmonic device must delineate all three factors to show clear distinctions, particularly between devices which are similar in some respects. When one or more of these factors is disregarded in defining terminology, the definition fails to show adequate distinctions and breaks down, resulting in much obfuscation.

The apparent simplicity of Tischler's classification is achieved by his using only six basic terms for nonharmonic devices, and by defining some of the terms more broadly than is desirable for a complete and definitive nomenclature. By imposing a stressed-unstressed classification over an approach-departure classification, certain complications arise in which a given melodic device is designated by two different names, depending upon whether it is accented or unaccented. Under this system, for example, the melodic passing tone device which is approached and departed from stepwise in the same direction is called a passing tone when unaccented, and an appoggiatura when accented. If stress is regarded as the primary differentiation between devices, this system is entirely logical, but confusion does arise when the same melodic device consequently is known by two different names.

The factors of stress, approach, departure, and direction of resolution all provide points of differentiation that help determine the classification and definition of nonharmonic devices. The manner of approach and of departure, however, are the only factors that consistently describe, and therefore define, all nonharmonic devices. The other conditioning factors are not clearly applicable to all nonharmonic tones, considered as melodic devices, and therefore should not be the primary basis of a system of classification and nomenclature. Because

the manner of approach and of departure are melodic factors significant to the definition of all nonharmonic devices, these factors should determine the primary classification. The other conditioning factors, where they apply, should determine the secondary classification and provide points of differentiation where such distinctions are required for a definitive nomenclature.

Examples of variants in terminology, definitions, and classification will be discussed under the respective devices which are considered in Chapter IV. The factors that determine the classification and definition of nonharmonic devices will be considered in the following order of importance:

1. The manner of approach and departure used.
2. The direction of departure from the dissonant tone.
3. The rhythmic position of the dissonant tone.

These factors will be used as the basis for classification and definition of the terminology selected as most appropriate for each nonharmonic device. The order in which the various nonharmonic devices are presented in Chapter IV is based upon the manner of approach and departure, beginning with a common tone, then a step, and then a skip. The direction of departure from the dissonant tone and the rhythmic position of the dissonant tone in the measure will serve as qualifying factors for a definitive nomenclature.

CHAPTER IV

NONHARMONIC TONES: TERMINOLOGY VARIANTS

A classification of nonharmonic tones according to the manner of approach and departure provides the mathematical possibility of nine basic nonharmonic devices, as shown in Table V.

TABLE V

BASIC NONHARMONIC DEVICES

No.	Manner of Approach	Manner of Departure
1.	Prolongation	Prolongation
2.	Prolongation	Step
3.	Prolongation	Skip
4.	Step	Prolongation
5.	Step	Step
6.	Step	Skip
7.	Skip	Prolongation
8.	Skip	Step
9.	Skip	Skip

The manner of approach and departure is used as the primary basis of classification because, firstly, nonharmonic tones are regarded as melodic devices, and secondly, because all the possible nonharmonic devices can be classified on this basis.

Further refinements in definition and terminology are possible

by making distinctions according to (1) the direction of resolution of the dissonant tone in relation to the direction of its approach (same or opposite), (2) the general direction of melodic movement (up or down) and (3) the rhythmic position of the dissonant tone in the measure (stressed or unstressed). The direction of resolution may be a conditioning factor in those nonharmonic tones which resolve by step or by skip. There are six basic nonharmonic devices which resolve by step or by skip. Each of these six devices may resolve in the same direction as the approach, or may resolve in a direction opposite to the direction of approach, giving the possibility of twelve different melodic patterns.

The direction of melodic movement in eight of the basic devices may be up or down, giving sixteen elements of differentiation in melodic pattern. The first device uses prolongation for both approach and departure, involving no melodic movement, and thus cannot be classified according to direction of movement.

The theoretical possibility that the dissonant tone in each basic device may occur as stressed or unstressed provides eighteen additional factors of differentiation for purposes of description and definition. The first basic device occurs both on stressed and unstressed beats of the measure, being a sustained tone. The other eight basic nonharmonic devices may occur on either a stressed or an unstressed beat or fraction of a beat.

These mathematical possibilities of variation, totalling forty-six, may be used as distinguishing factors in the description, the definition, and the ascribing of terminology to all possible nonharmonic devices. These elements of variation, used to sub-classify the nine

basic nonharmonic patterns, are regarded as secondary aspects of classification because they do not apply with equal usefulness to definitive distinctions.

The forty-six possible distinguishing factors in nonharmonic tone patterns may be charted on the basis of the above criteria (see Table VI). Not all of the theoretically possible devices are found in the music of the eighteenth and nineteenth centuries, however. Some of them lack tonal or stylistic relevance, and others represent unnecessary distinctions for definitive purposes. Twenty-four of the possible variants of single-tone nonharmonic devices are found in the music of the eighteenth and nineteenth centuries (see Table VI).

Some of the twenty-four variants are disregarded in both terminology and definition by theorists, while other of the variants are universally accepted as important distinctions for purposes of definition. A considerable number of the variants are controversial, much disagreement existing regarding their classification and terminology. Some of this controversy results from the lack of a systematic basis for classification, and particularly from the arbitrary definition of terms. Much pedagogical confusion is found in the lack of clear and precise definition of nonharmonic tone terminology.

Examples 5, 6, and 7 illustrate a few of the more obvious variations in the relative importance of melodic characteristics used for the classification and definition of nonharmonic tones. The device in which the dissonant tone is approached and left stepwise in the same direction, generally known as a passing tone, may have an upward or a downward melodic direction. No theorist apparently considers it important to distinguish between an upward and a downward melodic direction

TABLE VI

VARIANTS OF SINGLE NONHARMONIC DEVICES

	Basic Devices		Directional Relationship of Departure to Approach		Direction of Melodic Movement		Rhythmic Position of Dissonant Tone		No. of Variants in use
No.	Approach	Departure	Same as Approach	Opposite to Approach	Upward	Downward	Stressed	Unstressed	
1	Prolongation	Prolongation	---	---	---	---	(X)	(X)	1*
2	Prolongation	Step	---	---	(X)	(X)	(X)	X	2
3	Prolongation	Skip	---	---	X	X	X	X	0
4	Step	Prolongation	---	---	(X)	(X)	X	(X)	2
5	Step	Step	(X)	(X)	(X)	(X)	(X)	(X)	8
6	Step	Skip	X	(X)	(X)	(X)	X	(X)	3
7	Skip	Prolongation	---	---	(X)	(X)	X	(X)	2
8	Skip	Step	X	(X)	(X)	(X)	(X)	(X)	6
9	Skip	Skip	X	X	X	X	X	X	0

Notes:

X Variants Theoretically possible

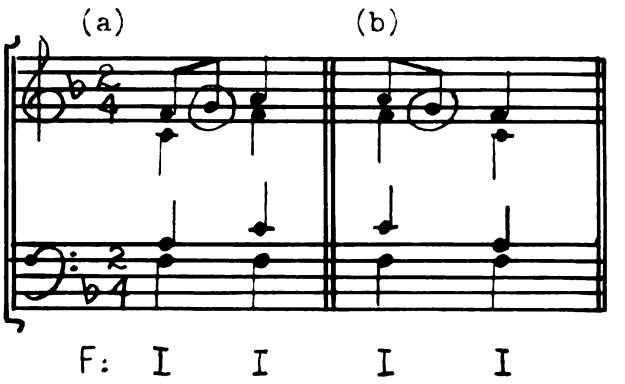
(X) Variants used in nonharmonic devices of the eighteenth and nineteenth centuries

--- No melodic movement occurs in the approach or in the departure, due to prolongation

*The first basic device is a sustained tone, occurring on both stressed and unstressed beats of the measure, hence only one form of this device occurs.

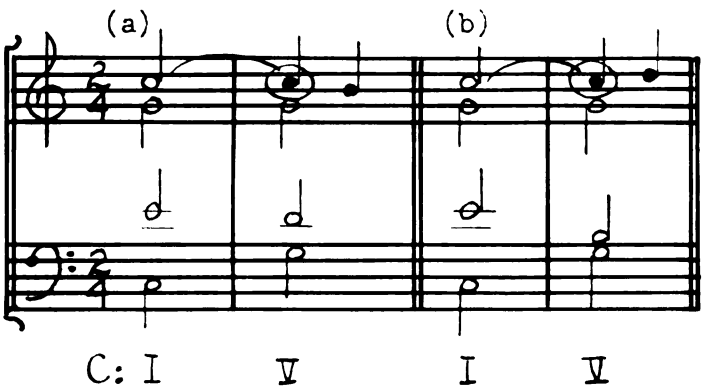
in this device.

Example 5.



The nonharmonic tone approached by prolongation and left by step, generally known as a suspension, may resolve upward or downward. Some theorists make no distinction in regard to the direction of resolution. Other theorists consider this distinction important, even to the extent of using two different terms for this device, identifying the downward resolution as a suspension and the upward resolution as a retardation.

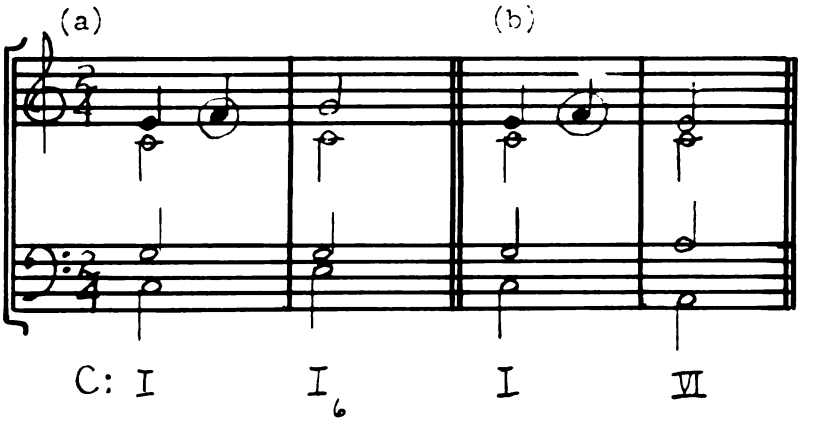
Example 6.



The nonharmonic tone which is approached stepwise and left stepwise may resolve in the same direction as that of the approach, or resolve in the opposite direction to that of the approach. All theorists consider the direction of resolution an important classifying factor in

this case. The device using the same direction for the approach and the departure is frequently given the name of passing tone. When the direction of resolution is opposite to that of the approach, a different name is given to the device, as neighboring tone or auxiliary.

Example 7.

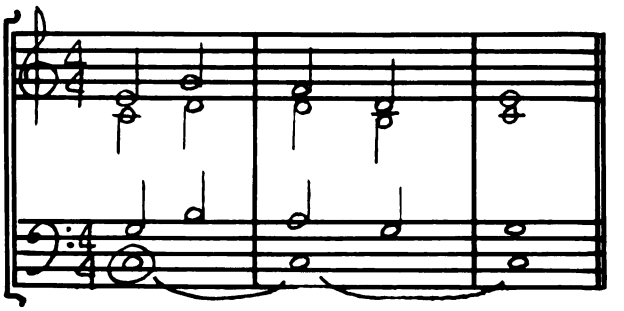


Each single nonharmonic device with its variants which are found in the music of the eighteenth and nineteenth centuries will now be considered in the order in which they appear in Table V. Certain nonharmonic devices make use of more than one dissonant tone, or combine two or more of the single devices classified above. These devices will be referred to as combined devices and will be examined in reference to the same criteria for terminology and definition applied to the single nonharmonic devices.

Single Nonharmonic Devices

1. Approached by Prolongation and Left by Prolongation.

Example 8.



This device is generally known as a pedal point. Other terms applied to this device are organ point, pedal, pedal tone, sustaining tone, holding note, and lying voice. The term pedal tone is used to refer to the lowest tone produced on wind instruments, being the pitch produced by the entire length of the pipe. Therefore, the use of this term in connection with this nonharmonic device is not a satisfactory choice. Most of the terms used are descriptively appropriate. The term pedal derives from its use on the organ pedal, which provides a convenient means of sustaining a tone in the bass voice as long as might be required. The sustaining pedal on the modern grand piano also can serve the same function within the limitations of the piano to sustain tones. The term pedal point is the term most frequently used, and historically is the most appropriate choice as a functional term for this device.

The definition of pedal point is more generally agreed upon than the definition of any other nonharmonic term. A pedal point generally is defined as a tone sustained, usually in the bass, while

the other voices move through a succession of chords which create a dissonant relationship with the sustained tone. The first and last of the succession of chords are harmonies to which the pedal point is consonant. Some of the intervening chords, at least, are harmonies to which the pedal point is dissonant. The pedal point functions as an axis around which chord progressions are formed by the melodic movement of the other voices, and at the same time introduces the element of dissonance into the texture of the music. The pedal point may appear in one of the voices other than the bass, in which case it sometimes is called an inverted pedal point.

An example of semantic discrepancy is found in the harmony textbook by Donald Tweedy (31).[1] He states explicity, "Inharmonic or unessential tones are always dissonant, and are introduced either deliberately because they are dissonant, in which case they are apt to be rhythmically accented, or as melodic ornament, in which case they are regarded as a means of varying the melodic line, and may be either accented or unaccented."[2] Subsequently, in classifying the pedal point as a nonharmonic tone, described as always dissonant by his own definition, he states a pedal point occurs "when a series of chords pivots about a given tone which remains in one voice."[3] He then presents the following musical example, in which the pedal point is not dissonant at any time, with the exception of its appearance as a chord seventh in

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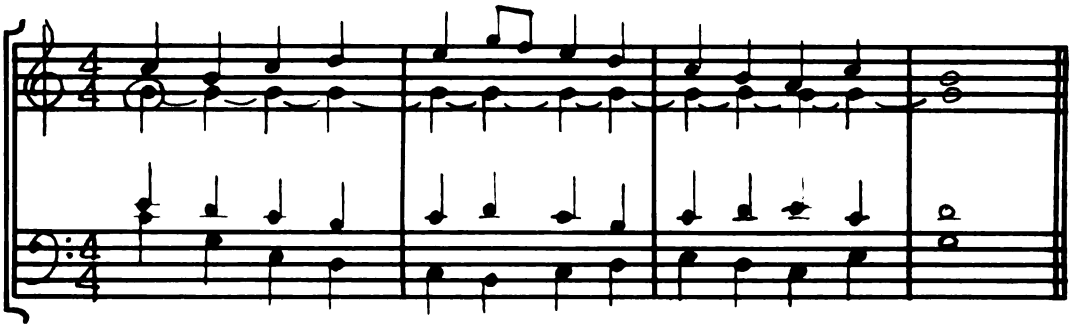
[1]Numbers in parentheses following the names of textbook authors mentioned in Chapter IV refer the reader to the corresponding entry in the select bibliography, found in Appendix I.

[2]Donald Tweedy, Manual of Harmonic Technique (Boston: Oliver Ditson Co., 1928), p. 26.

[3]Ibid., p. 212.

the submediant chord just preceding the cadence. The tone illustrated as a pedal point is simply a common chord-tone continuing in the same voice.

Example 9.



C: I V I_6 $V_{6\ 4}$ I V_6 I $V_{6\ 4}$ I_6 $V_{6\ 4}$ $VI_{6\ 5}$ I_6 V

The example is in agreement with the definition he gives of a pedal point, but both appear to be at variance with his definition of nonharmonic tones. Subsequent to this example, Tweedy reiterates his original definition of nonharmonic tones, stating, "The inharmonic tone, being always dissonant, is a means of expression for intense emotion or for securing amphasis."[1] (Italics by the author).

Carolyn Alchin (1) gives an exclusively nonharmonic function to the pedal point. "The pedal point is a tone sustained by one part through a succession of harmonies of which it forms no part."[2] This definition is conditioned only by the requirement that the pedal point enter and close as a harmony note, and that it should be entered on the accent at the beginning of a phrase. Although the same term may

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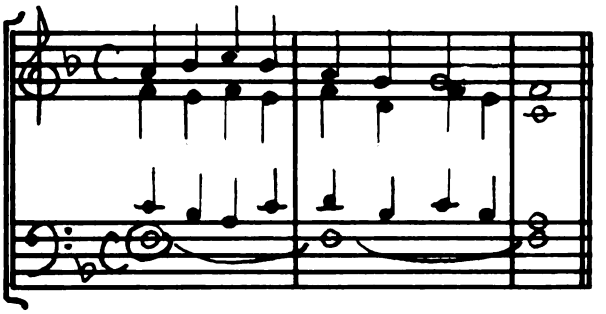
[1]Ibid., p. 212.

[2]Carolyn A. Alchin, Applied Harmony (2d ed. rev.,; Los Angeles: L. R. Jones, 1935), p. 81.

be used by many theorists, differences in the interpretation of the device may be seen to give different meanings and connotations to the term. Alchin states that when the pedal point in the bass forms no part of the chord above it, the next tone above the pedal point must be regarded as the bass.[1] Weidig states just the opposite. "If the pedal tone [sic] lies in the bass, the voice next above it must be treated as a middle voice, avoiding distinctive bass progressions, as otherwise two bases result. This fact is of greatest importance."[2]

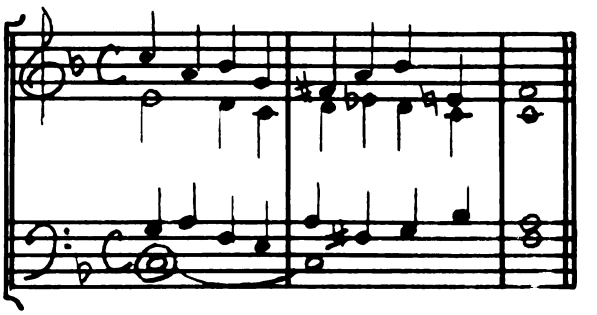
The two forms of the pedal point traditionally used are the pedal point on the tonic, and the pedal point on the dominant.

Example 10.



F: I V I V VI II V V_7 I

Example 11.



F: V III IV V VI♯ VII°/II II V_7 I

Both uses of the pedal point appear to have evolved from cadential patterns to help establish or reaffirm the key. The pedal point on the tonic may be used at the beginning of a phrase, or at the very end of a phrase or a cadential point in a composition. The pedal point on the tonic sometimes is used to emphasize a plagal cadence, being used as a common tone with the subdominant and tonic chord at the point of its conclusion or resolution as a dissonance. In the same way, the dominant

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[1] Ibid.

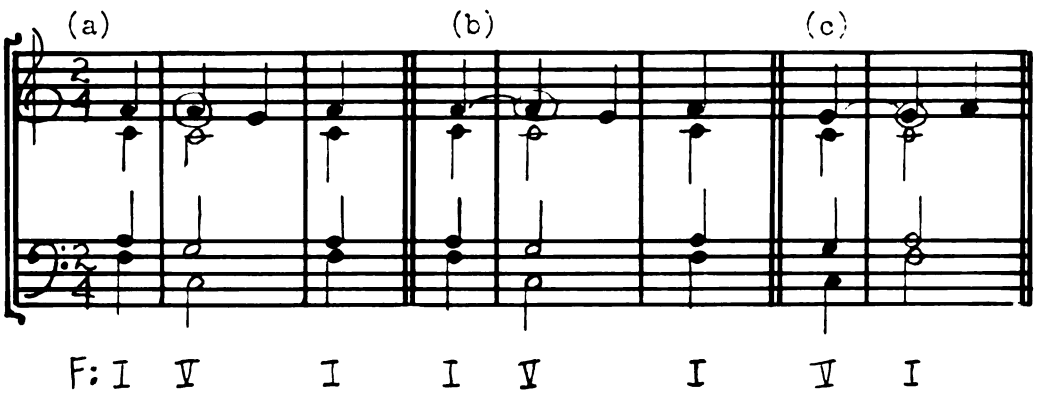
[2] Adolf Weidig, Harmonic Material and its Uses (Chicago: Clayton F. Summy Co., 1923), p. 112.

pedal point sometimes is concluded with its resolution into the tonic six-four chord progressing into the dominant chord as a half cadence, or continuing further to the tonic chord as an authentic cadence. The chords to which the pedal point is dissonant may be either diatonic or chromatic chords. Used with chromatic harmonies, the tonic and dominant pedal points help keep the dissonant chords oriented to the tonality, and thus exercise a strong tonal function.

The pedal point may occur in two or three voices simultaneously, usually at the octave or fifth, in which case this device is called a double pedal point or a triple pedal point. The pedal point may be repeated without ties, or interrupted by rests, providing a rhythmic repetition of the tone. In this case it is called an interrupted pedal point. The repetition may be used to impart added rhythmic stress to the chord progressions, or to reinforce the sustaining effect on instruments with limited sustaining ability, such as the piano or the harpsichord. The pedal point is found more frequently in instrumental than in vocal music.

2. Approached by Prolongation and Left by Step.

Example 12.



A stressed nonharmonic tone reached by prolongation (by common tone in the same voice) and left by step, either a half-step or a whole-step, is referred to by the terms suspension, delayed tone, appoggiatura, and prepared appoggiatura. These terms are found applied to this device when the tone of resolution moves up or down stepwise.

Some theorists use the term retardation for the device when the dissonant tone resolves upward (Example 12c). The dissonant tone tends strongly to resolve upward when it happens to be the leading tone of the scale, or is one of the other active scale tones which may have an expected tendency to resolve upward in its melodic context. The direction of movement of the suspended tone normally follows the directional tendency of the particular scale degree.

Because of this tendency disposition, resulting from tonal considerations rather than an arbitrary definition of nonharmonic tones in this study, distinction between the upward resolution (retardation) and the more frequent downward resolution is unessential in this case and does not justify the use of two classifying terms for the same device. In the interest of reducing the categories of nonharmonic tones to the smallest number consistent with classification according to basic principles, no classification distinction need be made between an upward and a downward resolution of this device. In general, the principle which determines the direction of resolution is that dissonant tones tend to move to the nearest tone of resolution. If the interval of possible progression is the same in either direction, as 2-3, or 9-8 in the major scale, the more usual direction of movement is downward.

A distinction in terminology is made by some theorists when the

dissonant tone is tied to the preceding tone of preparation (Example 12b) and when it is not tied (Example 12a). For example, Stanley Chapple (4) and Franklin A. Robinson (27) refer to this device as a suspension when it is tied, and a prepared appoggiatura when it is not tied. Foote and Spalding (6) and McKose (14) use the term suspension without differentiation for all accented forms of this device, and find no essential difference between the dissonant tone which is tied and the one which is not tied, in accordance with the actual practice of J. S. Bach. The only difference is a matter of degree of stress; the repeated tone is heard with a stronger rhythmic pulse or accentuation than is the tone which is not repeated, but sustained by means of a tie. In the use of this device composers frequently take into account the sustaining qualities of the instrument for which they are writing, or the words of the text being used in vocal writing. A suspended or delayed tone may be tied to its preparation when writing for organ or orchestra, and repeated when writing for piano or harpsichord. The dissonant tone may be tied when the same syllable of the text occurs with both the preparation tone and the suspended tone, and repeated when a different syllable occurs with each tone.

Prout (22) states that the tie is an essential characteristic of the suspension device, and that the use of this device without the tie is properly called an appoggiatura. The term appoggiatura is found with a variety of applications and definitions, with much ensuing confusion. Prout states the appoggiatura is distinguished by its rhythmic stress and appears on the beat, most effectively occurring with a change of harmony. By his definition, the appoggiatura may be entered by skip, step, or repetition, and resolves by step up or down, to a note

of the chord. The essential difference he makes between the suspension and the appoggiatura is the tie itself, without regard to the particular approach or departure used with the appoggiatura. If the dissonant tone is tied, he calls it a suspension, and if the dissonant tone is not tied, he classifies it as an appoggiatura. He stresses this distinction as having much significance, although the differences are not always clear in his definition of terms. He states that "The appoggiatura entering by repetition should not be confused with the suspension . . . the distinction is of great importance as the two interpretations are widely different in rhythm and style."[1] Prout regards the differences subjectively as matters of interpretation in rhythm and style. He fails to give a clear semantic distinction showing differences in the manner of approach which would serve to define the two terms precisely.

The term appoggiatura has been used for a number of accented devices, particularly when no agreement exists as to the manner of approach, and consequently has been given multiple definitions and meanings. Confusing the meaning of the term appoggiatura with the suspension device can serve no constructive purpose in the pedagogy of theory. The term appoggiatura will be discussed in connection with the device more commonly known as "appoggiatura".

The terms delayed tone and suspended tone are descriptively functional relative to the harmonic and melodic context in which this device is found. Suspended tones usually belong to the preceding chord and are held over or sustained while a change of chord occurs on the accent. These suspended tones, having become dissonant with a change

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[1]Ebenezer Prout, Harmony: Its Theory and Practice (London: Augener & Co., 1889), p. 32.

of harmony, then move to an adjacent tone of the new chord for resolution. The term suspension, its etymology being from the Latin suspendere (to hold under, forming a continuation of), originally was applied to this device in strict counterpoint, and has been the most consistently used term for this device throughout the harmonic period.

Richter (25), in a textbook used extensively in American conservatories before World War I, considers the suspension the most important manner of linking harmonies together. He defines the suspension as a device which "arises through the delaying of a progression of a voice, which is expected at a definite time, or even necessary, and in such a manner, that the voice, which has to progress one degree downwards, in order to occupy its position in the following chord, lingers still upon the tone of the first chord, while the others progress to the second, and this voice does not pass over into the harmony until later." [1] Fortunately, more recent attempts to define this device are more direct, and presented with greater economy of words.

Webster gives the following definition as used in music: "The holding over of one or more tones of a chord into the following chord, thus producing a momentary discord, suspending the concord which the ear expects." The term may be interpreted as applying both to the holding over of the tone of preparation and to the delay in the appearance of the tone of resolution. Thus, the term suspension implies both the common-tone preparation and the delayed, stepwise resolution of the dissonant tone. This term will be used subsequently because of its etymological appropriateness and because of its historical acceptance in general usage.

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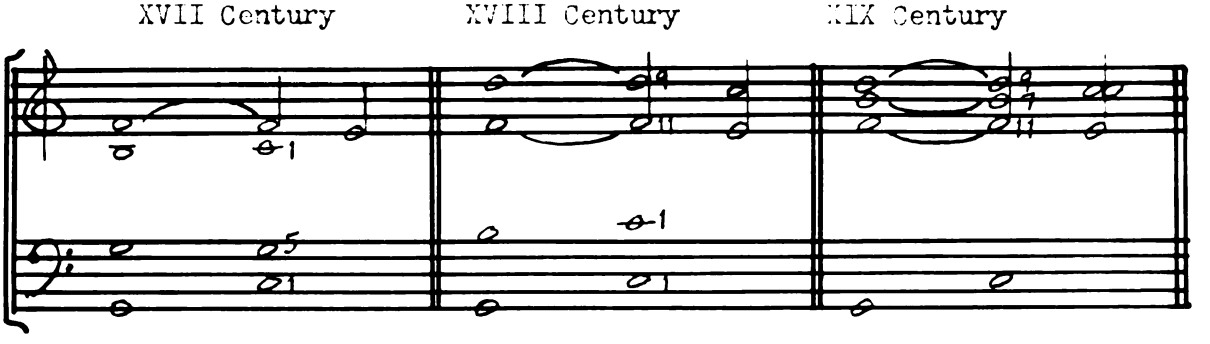
[1] Richter, p. 105.

Joseph Schillinger (19) gives a concise description of the historical development of suspensions, concluding that the correct use of suspensions and the supporting harmonic structure under the suspension became crystallized in the eighteenth century.

> The effect of a suspension is to intensify the chord by means of common tones which, while being suspended, rise in rank as a chordal function after which rise they are then released. Every suspension consists of three consecutive phases: preparation, suspension, and resolution. Our ears, due to heredity and habits, accept a suspension only on a strong beat. The source of this habit is strict counterpoint, in which dissonances were only permitted on weak beats and on strong beats, by suspending ("tying over") a common tone. Classical harmonic structures had not been fully crystallized at the time suspensions were used in counterpoint this way, and so these suspended tones produced antiquated harmonic structures resembling those of the old organum type.
>
> The following figure illustrates the evolution of structure under suspensions. It has been gradually realized that it is necessary to support the eleventh by the ninth; the ninth by the seventh.

Example 13.



Schillinger states that the historical crystallization of the suspended chord seventh, S(7), as an independent structure occurs in the eighteenth century, and the suspended chord ninth, S(9), in the middle of the nineteenth century. He concludes that the harmonic structures under suspensions must conform to the perfected forms for correct usage, shown in his illustrations (see Example 13). Schillinger also believes that, while suspensions in classical theory are always

descending, it is important to have a system of classification which provides for ascending resolutions of suspensions.

The structural conditions given by Schillinger for the correct use of single, double, and triple suspensions are as follows:

> A single suspension requires an S(7) in which the suspended tone is a prepared 7th. (The S(7), illustrated in Example 13, more commonly is known as the 4-3 suspension).
>
> A double suspension requires an S(9) in which the suspended tones are the prepared 7th and 9th. (The S(9) is known as the 9-8 suspension).
>
> A triple suspension requires preparation of the 7th, 9th, and 11th in an S(11). (The S(11) also is known as the 4-3 suspension).

Schillinger makes the observation that all other structural uses of suspensions not conforming to the above patterns are crude and antiquated, and create harsh and empty-sounding gaps when orchestrated.[1]

Further observations regarding the traditional use and definition of suspensions in the eighteenth- and nineteenth-century styles may be male as follows:

> 1. A suspension always is a stressed or accented tone.
>
> 2. Suspensions must be prepared and resolved. This condition precludes the use of the term "appoggiatura", as this term frequently is defined to include skips to the dissonant tone.
>
> 3. Both the suspensions and its resolution must occur in the same voice. (An infrequent exception may be found when the suspended tone is resolved at a higher or lower octave as a result of a change in chord position. This exception conforms to the principle regarding resolution; the octave and the unison are regarded as the same tone in harmonic structure).
>
> 4. A suspended tone and its resolution should not be doubled in any other voice in partwriting to prevent faulty use of parallel octaves.
>
> 5. A suspension neither prevents or corrects consecutive fifths or octaves that would occur without the suspension.

---

[1]Schillinger, p. 570.

6. The suspension frequently is given the same duration as its preparation. It may be shorter, but not longer than the note of preparation.[1]

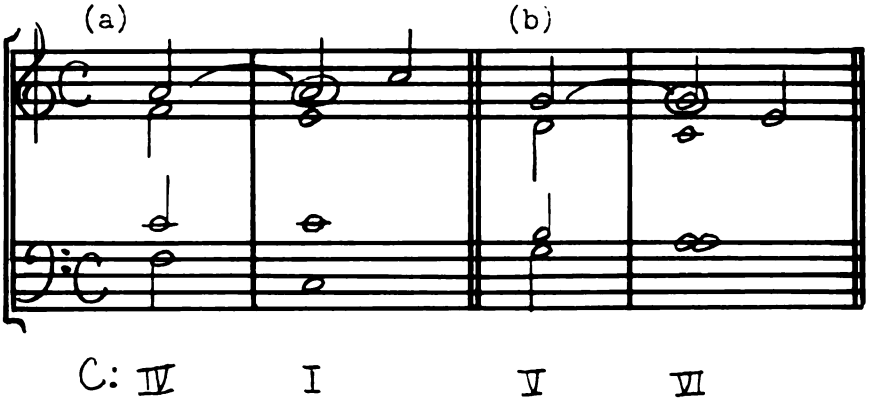
7. The suspension may or may not be tied to its note of preparation.

8. A suspension usually resolves downward, but may resolve upward without any essential change in its function or its definition.

In accordance with the above observations and the basis of classification being used here, the suspension may be defined as follows: The suspension is an accented nonharmonic tone which is approached by preparation and resolved by step, usually downward.

3. Approached by Prolongation and Left by Skip.

Example 14.



The device illustrated in Example 14a may be conceived theoretically as an accented dissonance if an aural concept of tonic harmony can be established in the second measure. The same chord also may be heard and analyzed as a subsidiant chord in the first inversion, in which case the tied note is a chord tone and no dissonance is present.

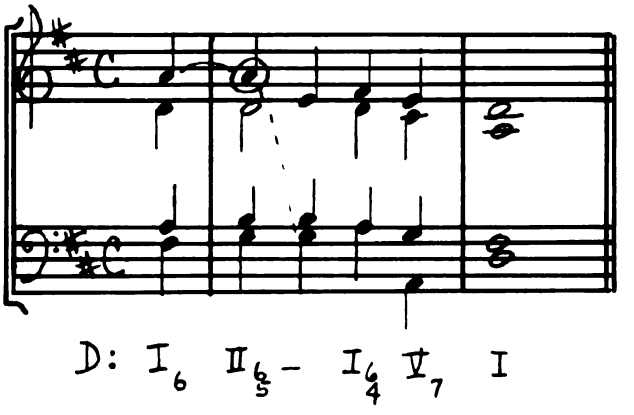
---

[1] McHose (14), p. 121, concludes from a study of frequency of occurrence in the 371 Bach Chorales that "The time value assigned to the preparation note is never less than the time value of the suspension note. Normally the time value assigned the preparation is the same as, or twice, that of the suspension note."

Because of the tonal ambiguity of this pattern, it rarely is used. The tied note in Example 14b is an actual dissonance, but the device seldom is used because it deviates from the principle that dissonant tones resolve stepwise to the nearest tone of resolution.

An apparent exception to this principle is found in the so-called indirect resolution, or resolution by substitution. A skip sometimes may be found between the dissonant tone and the apparent tone of resolution in the same voice, while the actual tone of resolution appears in another voice, usually the bass.

Example 15.

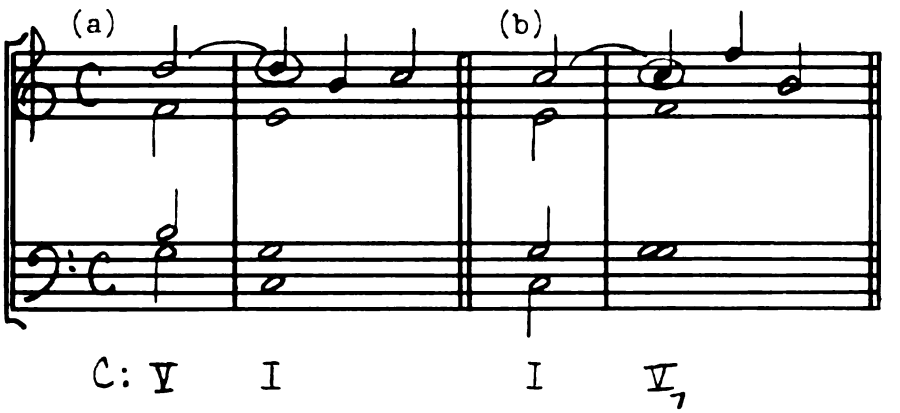


This manner of resolution is regarded as conforming to the traditional principle for the resolution of dissonance, as it represents an octave transposition of the tone of resolution to another voice of the chord. The harmonic pattern usually involves a change of chord position from closed to open, or vice versa. Theoretically and accoustically, the octave and the unison are regarded as the same tone. This pattern represents merely the octave doubling of a tone found or implied in the chord of resolution.

What may appear to be another exception to this principle is found when the melodic movement from a dissonant tone proceeds by a

skip, usually a third, and subsequently returns in the opposite direction to the normal tone of resolution.

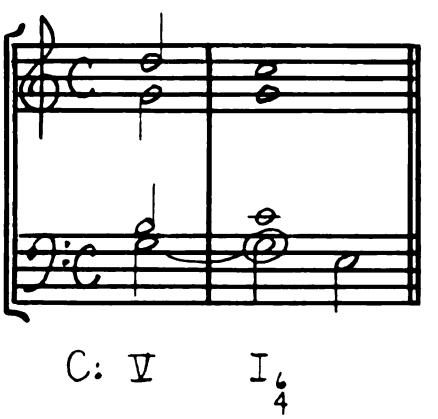
Example 16.



This nonharmonic pattern, which also contains a tone or resolution, is regarded as an embellished resolution of the dissonance, and will be treated in the classification of combined nonharmonic devices.

When the prolongation, or tied tone of the approach occurs subsequently as a tone of the new triad on the following beat, the "suspended" tone then is a concord, and not dissonant at any point in the measure. As a harmonic tone of the new chord, it may, and frequently is found to progress by a skip to another chord tone (Example 17).

Example 17.

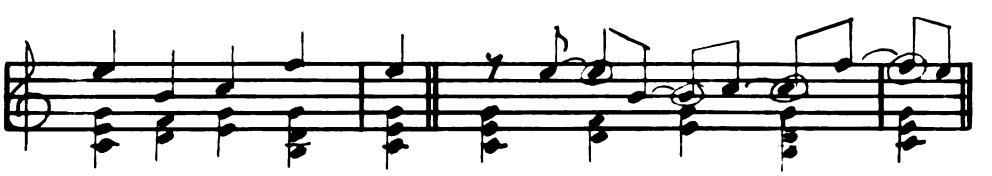


This type of pattern contains no dissonance to be resolved. Some theorists include this pattern in the definition of suspension,

justifying the broadened definition of the term on the basis of the tie alone. Norris (19) applies the term suspension to this device when the prolonged tone does not form a dissonance, but he describes the effect as "vague and characterless."[1] He does not clarify his terminology at this point, apparently because of the lack of a satisfactory basis for classifying this device in any other category. Meacox and Lehmann (9) note that some theorists regard this particular device as a suspension, but object to its being classed as a nonharmonic device. "The latter is, strictly speaking, not a suspension, but is classed by some as a suspension of the third, since the fifth skips down to the missing third of the chord."[2] Bridge and Sawyer (2) relate this device to both suspensions and retardations, but explain that it does not coincide with their definition of either a suspension or a retardation because the dissonant tone resolves disjunctly, or by skip. They apply the term driving note to this device, a term defined by Stainer and Barrett as "notes driven through the ensuing accent."[3]

Bridge and Sawyer illustrate driving notes with the following musical example.[4]

Example 18.



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[1]Norris, p. 78.

[2]Meacox and Lehmann, p. 113.

[3]Sir John Stainer and W. A. Barrett, A Dictionary of Musical Terms. (London: Novello & Co., Ltd., 1898).

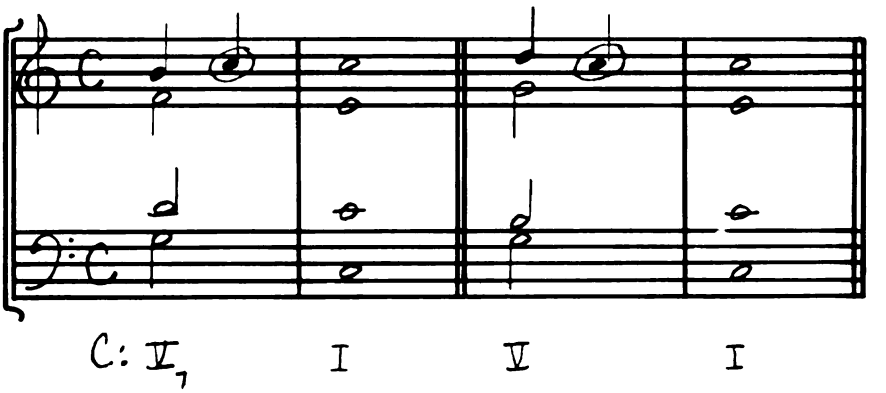
[4]Bridge and Sawyer, p. 140.

Hull (11) also applies the term driving note to this device, defining it as a note "brought forward in time, just as suspensions are notes held back."[1]

The use of unresolved dissonance became very common in the twentieth century, but was generally regarded as an "incorrect" procedure in earlier periods of harmonic and contrapuntal practice. A nonharmonic tone approached by prolongation and left by skip is foreign to traditional harmonic practice and requires no polemorical classification.

4. Approached by Step and Left by Prolongation.

Example 19.



The step-prolongation pattern of this device is seen as a reversal of the prolongation-step pattern of the suspension. A number of theorists describe this device as being the opposite of a suspension because of the reversed relationship of the approach and the departure. Another important difference is found in the fact that this device occurs as an unaccented dissonance, preceding the tone of resolution, while the suspension is accented. There is a general acceptance of the term anticipation for this device, with few exceptions. The use of this term clearly is suggested by the rhythmic position of the dissonant

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[1]Hull, p. 62.

tone, which in fact "anticipates" its appearance in the following chord.

The obsolete term driving note, used by some English theorists for this device during the latter part of the nineteenth century, is seldom encountered in twentieth century harmony textbooks.[1] Hull (11) applies the term driving note to the anticipation as well as to basic device number three.

Piston (21) uses the term anticipation, describing it as "a kind of advance sounding of a note."[2] Ottman (20) provides a more explicit definition: "An anticipation is a non-harmonic tone which sounds the same pitch as the harmonic tone following and is found in a weak rhythmic position."[3]

While the application of the term anticipation to this device appears to be generally agreed upon by theorists, the term sometimes is given a broader and more inclusive interpretation than is consistent with the classification herein presented. Norman (18) attempts a further refinement of terminology for this device, in an apparent effort to clarify any confusion such as that left by Hull. Norman defines an anticipation as "an unaccented foreign tone which occurs directly ahead of the next beat (or afterbeat) and then reappears directly on the next beat (or afterbeat)."[4] He complicates his definition by attempting to distinguish between an anticipation which is tied to its resolution and one which is not tied. Norman refers to the dissonance which is repeated on the accented pulse of resolution as an anticipation, and

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[1]Frederick Hooks, in his Dictionary of Musical Terms, 2d ed. (London: Augener, [1908]), defines driving notes as "an old-fashioned name for syncopated notes."

[2]Piston, p. 91

[3]Ottman, p. 130

[4]Norman, p. 61

identifies the same device when tied as syncopation.

Difficulty of classification ensues when the choice of terminology is made dependent upon the presence or absence of a tie, in regard to both the suspension and the anticipation. Some theorists equate the tie with syncopation. Syncopation is a metrical stress on a normally weak beat of the measure, and is a matter of rhythmical emphasis rather than melodic pattern. Stress can be created in other ways than by the use of a tie. Syncopation can be achieved by the use of a rest on the strong beat, or by the use of an accent on the weak beat. Although the tie originally was equated with syncopation in early species counterpoint, the presence or absence of a tie is not to be regarded as a determining factor in the classification and terminology of a nonharmonic device during the eighteenth and nineteenth centuries.

Norman presents a further complication in terminology and definition when he introduces the term free anticipation, defined as "an unaccented foreign tone which occurs directly ahead of the next beat (or afterbeat) and then instead of reappearing directly proceeds to a different note of its proper chord on the next beat (or afterbeat)."[1] Two different basic devices in the approach-departure system of classification are thereby confounded, by applying the term anticipation to a device which resolves by a skip as well as to a device which resolves by preparation.[2]

Some theorists apply the term anticipation to devices which

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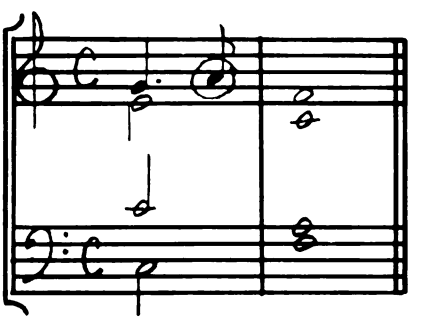
[1] Ibid.

[2] An interesting footnote appears on the last page (p. 112) of Dr. Norman's harmony textbook: "Copyright protection is neither claimed nor desired on the terminology, symbolism, and definitions employed in this book. The author considers all of the terminology and symbolism and each of the definitions to be completely in the public domain."

are either approached by skip or departed from by skip. Forman uses the term free anticipation for an unaccented nonharmonic tone which is left by a skip to a different tone of the following chord. The definition of the anticipation given by Murphy (17) includes the possibility of a skip to the dissonant tone. Foote and Spalding (6) include the possibility of a skip from the dissonant tone in their definition of anticipation, as an alternate form of the device.

Chadwick (5) states that the anticipation may be left by a skip to another tone of the same chord, calling this device an irregular anticipation.

Example 20.



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Chadwick states further that "an entire chord may appear in advance of the beat to which it naturally belongs, forming anticipations in all voices."[1] Such a chord pattern may be considered harmonic or nonharmonic, depending upon the harmonic analysis used.

Emery (5) differs with Chadwick, observing that the anticipation may occur as double or triple, involving two or three voices, but at least one voice must retain a note of the previous chord. "When all voices proceed thus early to the following chord, they present a

[1]Chadwick, p. 190.

rhythmic, but not a harmonic, anticipation and cease to be known under this name."[1] If the original assumption of this study is valid, that all nonharmonic tones are dissonant, the term anticipation may not properly be applied to the chord in which all voices "anticipate" the following chord and no dissonance actually is present in the harmonic structure.

We have thus a variety of definitions for the term anticipation, which presents a considerable problem in attempting to classify this device on the basis of approach and departure. The various definitions given above include the following possibilities, which would apparently require inclusion in a comprehensive definition of the term.

Approach	Departure
step	prolongation
step	step
step	skip
skip	prolongation
skip	step
skip	skip

An attempt to include all of these variants of a device under a single term combines several categories of devices based upon an approach-departure system of classification. To avoid such a broad use of the term anticipation, with its inherent difficulties of definition, a definition such as that given by Ottman is regarded as the most logical and most practical for instructional purposes. The system of classification being proposed here requires that only one term be used for each device, and that only one specific device be associated with each term in the vocabulary of nonharmonic tones.

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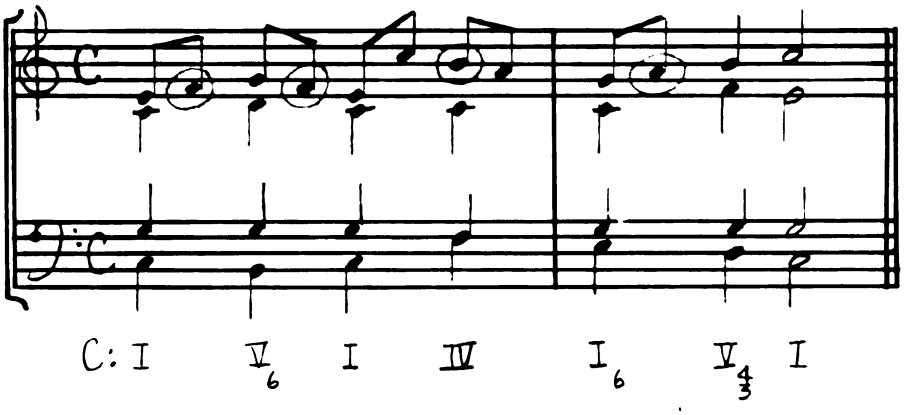
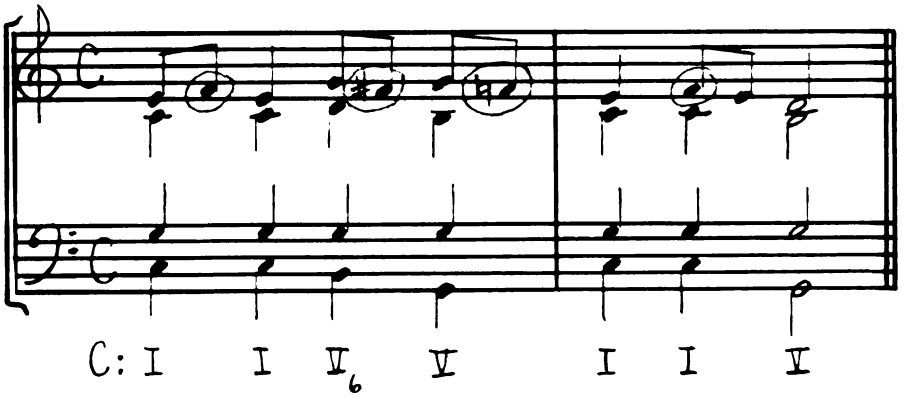
[1]Emery, p. 96.

5. Approached by step and left by step.

Example 21.



Example 22.



The diatonic approach and departure is the most frequently used pattern of nonharmonic devices. The melodic movement may be in half steps or in whole steps, according to the particular scale degrees involved or the harmonic style being used, permitting either diatonic or chromatic movement. The usual diatonic character of this device permits a scalewise movement in all voices of the chord progressions, providing the melodic emphasis characteristic of contrapuntal harmony. The dissonant tone is found on both stressed and unstressed parts of the measure, but more frequently on the latter.

Two distinct forms of this basic pattern are found. The more common form is that in which the dissonant tone is resolved in the same

direction as that of the approach (Example 21). The other form uses a tone of resolution which is reached by a reversal of the melodic direction, with a return to the same note.

The one difference between the two forms of this device, the melodic direction of the departure, traditionally is of sufficient importance to classify them separately. The apparent simplicity of the two patterns belies the wide variety of terminology and definitions used to explain these patterns in the phraseology of theory.

The first form of this device (Example 21) is known as a passing tone (accented or unaccented), auxiliary tone (accented or unaccented), appoggiatura (accented), and [illegible] (accented). The second form of this device (Example 22) is known as a neighboring tone (upper or lower), auxiliary tone (upper or lower), passing tone, embellishing tone, alternating tone, appoggiatura (accented), changing tone, and slow mordent. The fact that the same terms are applied to both forms of this device in some instances suggests that a close relationship exists between the two devices. The terminology as used by some textbook writers would seem to imply no distinction whatsoever.

Allen Forte (7) regards the difference between the two forms of this device of fundamental significance, requiring two distinct terms and definitions. "The passing note differs radically from the auxiliary note. The auxiliary note departs from and returns to the same note. The passing note connects two different notes."[1] Because of the distinctive usage of the two forms of this device, two identifying terms are justifiable here for definition and classification.

A much greater source of confusion than the variety of terms

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[1]Forte, p. 10.

found in use is the variety of definitions given for each term. If a student's understanding of terminology is limited to the presentation of a single textbook or a single instructor, the concepts underlying the terminology appear to present no significant problems. When textbooks or instructional presentations are compared, however, the actual meaning of the terms used becomes much less obvious. The great variety of definitions given for apparently simple terminology leads one to the conclusion that the precise definition of each term is much more significant for understanding than the particular choice of terminology itself. Furthermore, for consistency of meaning the definitions given the terminology should be related directly to the system of classification employed. Much of the obfuscation in nonharmonic tone terminology can be ascribed to the absence of a logical basis of classification, or to inconsistencies in classification. In some cases, terms appear to have been chosen arbitrarily with no basis of classification as a guide to definition of the terms. More recently published textbooks evidence greater concern for a systematic classification of nonharmonic tones, resulting in a more logical use of terminology.

On the basis of frequency of usage in more recent textbooks, the term passing tone is suggested as the appropriate term for the device illustrated in Example 21. For the same reason, the term neighboring tone is suggested for the device illustrated in Example 22. These two terms will be used subsequently in referring to the two forms of basic device number five in this study.

In order that the concepts embodied in these two terms have meaning for communication, the terms must be defined clearly and in a manner consistent with the approach-departure system of classification.

An examination of some of the meanings associated with the terms passing tone (Example 21) and neighboring tone (Example 22) indicate the extent of the problem, and suggest clearly the necessity for definition in relation to classification.

Richter (25) refers to passing tones as "harmonic by-tones", defining them as tones which "arise through the filling out, by means of tones lying between, of greater or smaller harmonic voice-steps."[1]

Alchin (1), also referring to nonharmonic tones as by-tones, states that such tones which "move by step to another harmony instead of returning to the first tone are called passing tones."[2]

Hull (11) gives a much broader definition of passing tones as "notes which do not form any part of the chords."[3] If nonharmonic tones are defined as dissonant tones, this definition can be applied to all nonharmonic devices.

Norris (16) uses the term passing note to include both forms of this device, that is, both the passing tone and the neighboring tone. He describes passing tones as belonging to the category of "subsidiary notes, unessential notes foreign to the harmony," and more specifically, "A passing note may either pass forward to a new note or back to the note it started from."[4] Norris gives the following illustration for his definition of the passing tone (Example 23).

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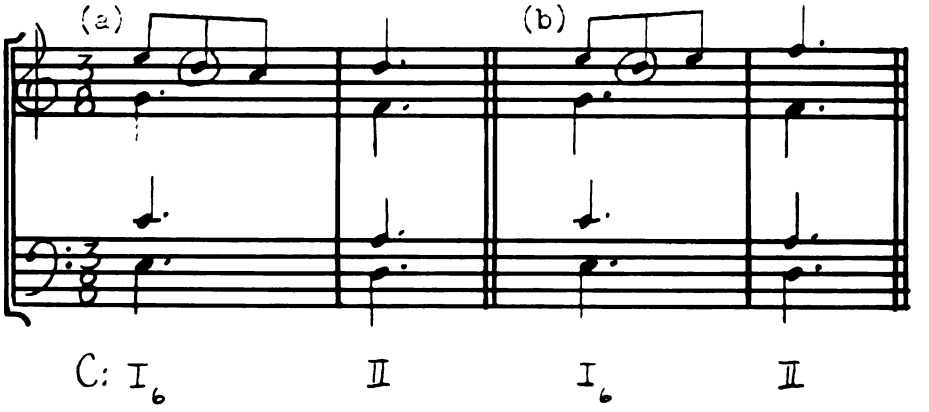
[1]Richter, p. 128.

[2]Alchin, p. 65.

[3]Hull, p. 82.

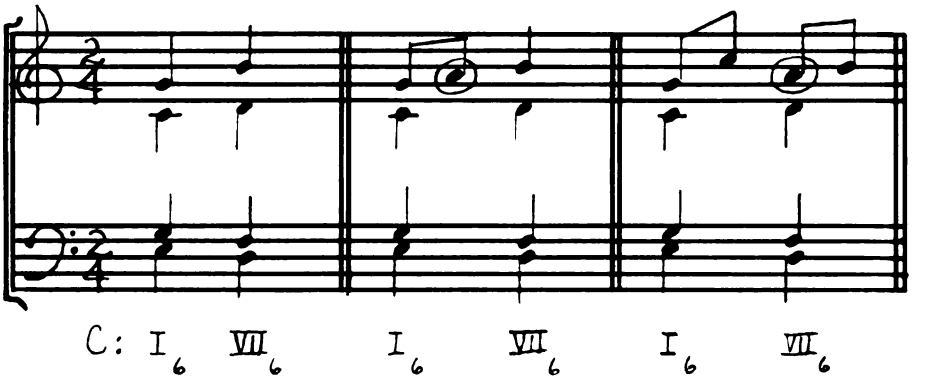
[4]Norris, p. 30.

Example 23.



Mitchell (15) classifies passing tones as either consonant or dissonant, presenting another concept of this device which includes the chordal skip and allows for both accented and unaccented forms of this "detail of melodic figuration."[1] Mitchell gives the following illustration of the passing tone.[2]

Example 24.



Murphy (17) suggests that all passing tones are properly regarded as only those tones which occur as unaccented forms of this device, but he is not entirely clear in regard to his own classification of the accented form of the passing tone. He explains that "For historical reasons, some theorists classify accented passing tones

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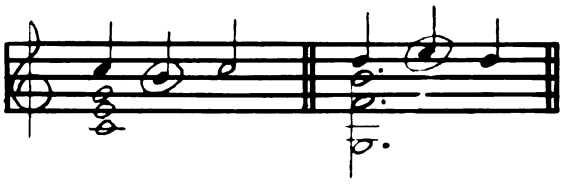
[1]Mitchell, p. 124.

[2]Ibid., p. 126.

as appoggiaturas."[1]

Hindemith (11) contributes a considerable amount of confusion to the terminology and classification of non-harmonic tones. His definition of the passing tone device coincides with the approach-departure classification being used for this study. For the neighboring tone device, however, he uses the term changing tone, defining this device as a non-chord tone which occurs "between a chord tone and its repetition, in weaker metric position than either, at the distance of a second above or below."[2] He gives the following illustration of changing tones.

Example 25.



Hindemith's terminology here differs from that of a majority of theorists and may be confused with a device to be discussed later. He does use the term neighboring tone, but in a manner which leads to still more confusion. He presents three categories of neighboring tones and illustrates his definitions, as follows.[3]

The Neighboring Tone is a consonance without preparation: (Example 26).

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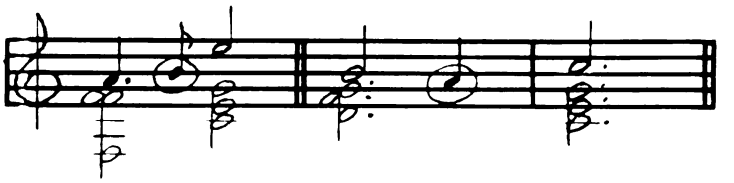
[1] Murphy, p. 170.

[2] Hindemith, p. 39.

[3] Ibid., p. 40.

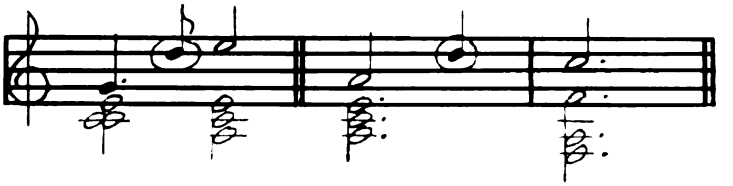
The neighboring tone left by skip follows its chord tone at the interval of a second, proceeding to another chord tone by skip. It occurs in weaker metric position than the chord tones:

(Example 27)



The Neighboring Tone Approached by Skip precedes its chord tone at the interval of a second, being separated from the previous chord tone by a skip:

(Example 28).



The definition of the term neighboring tone given by Hindemith presents an extremely broad interpretation not shared by most other theorists. The inclusion of nonharmonic tones approached by skip and left by skip involves three different categories of basic nonharmonic devices in the approach-departure classification. This apparent attempt to simplify the categories of nonharmonic devices adds more confusion than clarity, particularly with the unusual inter-change of terminology applied to the devices illustrated.

Emery (5) also uses the term changing-note in reference to the neighboring tone device. He defines the changing note as being "the same as the passing tone, except that it returns to the same note from which it came."[1] Emery gives the term passing tone a much broader

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[1]Emery, p. 96.

definition than does Kinkeldey, using it to include a device which skips to the dissonant tone. "A skip-note is a variety of passing-note to which, but not from which, a voice may skip."[1]

Chadwick (3) uses the term embellishment for the neighboring tone device. "The passing tone, which, instead of proceeding to the next harmonic tone above or below, returns to the same one, is called the embellishment."[2]

Any attempt to correlate the above interpretations of this nonharmonic device and the terms applied to it into precise definitions for pedagogical purposes results in chaos. Either one must select arbitrarily a name and definition for each device, or determine a suitable terminology and definition on the basis of some logical system of nonharmonic tone classification.

Several recent attempts to systematize the teaching of nonharmonic tones have simplified the explanation of passing tones and neighboring tones, and provide a basis for the general acceptance of terms and definitions. A lucid explanation of these two devices based upon an approach-departure analysis is given by McHose (14), Reed (24), and Ottman (20). McHose gives a very detailed explanation of the passing tone based upon the approach-departure classification. He defines the passing tone as a nonharmonic tone which is 'interpolated between two harmonic tones of different pitch.' The passing tone is placed in two categories, the unaccented and the accented, with a melodic direction either ascending or descending. Using the manner of

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[1]Ibid.

[2]Chadwick, p. 195.

[3]McHose, p. 105.

approach and of departure as the primary basis of classification, a single term and definition may be applied to both unaccented and accented forms of this device.

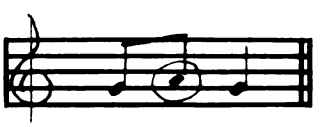
The neighboring tone, second in order of nonharmonic frequency to the passing tone, is explained by McIose as a nonharmonic tone approached by step and left by step in the opposite direction.[1] The same basis for classification is used as for the passing tone, which includes the lower neighboring tone and the upper neighboring tone. The approach and departure are stepwise melodic movements in every case, with no exceptions. The neighboring tone may be accented or unaccented.

Reed (24) and Ottman (20) give a similar explanation of this device in very concise form, summarized with the following illustrations:

Example 29.

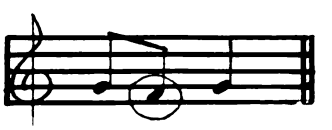
Passing Tone
unaccented

Neighboring Tone
upper



Passing Tone
accented

Neighboring Tone
lower



The approach and departure in every case are stepwise, conforming to the basis of classification presented for this device. The distinction

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[1] Ibid., p. 131.

between the passing tone and the neighboring tone thus is a matter of direction of resolution.

Piston defines passing tones as "tones which fill the space between two different harmonic tones not necessarily members of the same chord. This interval will be either a third, a fourth, or a second and may be bridged diatonically or chromatically, or by a combination of both, as long as the melodic progression contains no skip."[1] Piston disagrees with McHose and others in regard to the classification of the accented form of this device. "Although the passing tone may occur on the beat, or simultaneously with a change of harmony, it is inaccurate to speak of an 'accented passing tone'. All passing tones are unaccented unless they are purposely given an artificial accent. The so-called 'accented passing tone' is more correctly classified as an appoggiatura."[2]

In accordance with the approach-departure principle of classification, a device approached by step and left by step in the same direction is the same device whether it occurs in an unstressed or a stressed position in the measure. Consistency of classification thus allows the passing tone to be regarded as accented or unaccented. The same reasoning applies to the device approached by step and left by step in the opposite direction. The neighboring tone consequently may be regarded also as an accented or unaccented form of this basic device.

The author suggests that the confusion found in the various textbooks examined may be eliminated by the use of a logical system of classification and a consistent definition of the terms applied to

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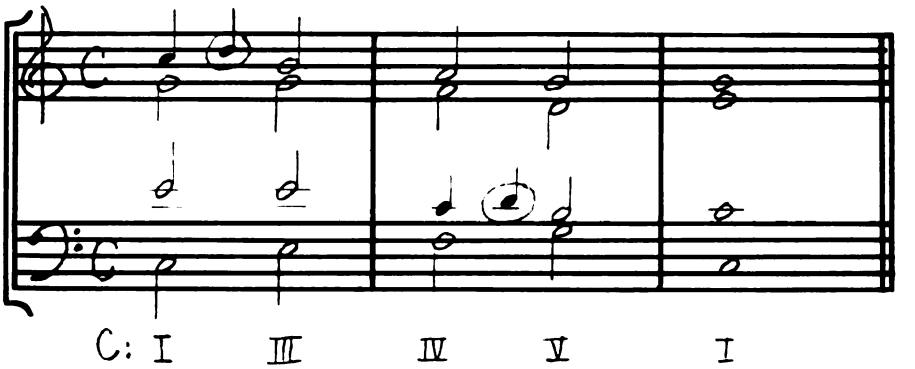
[1]Walter Piston, Principles of Harmonic Analysis (Boston: E. C. Schirmer Music Co., 1933), p. 30

[2]Ibid.

nonharmonic devices. The problem of terminology may be greatly simplified for pedagogical presentation by making the definitions consistent and concise.

6. Approached by Step and Left by Skip.

Example 30.



This nonharmonic pattern derives from a type of ornamentation in early polyphony which evolved as an exception to the principle that dissonances must resolve stepwise to the tone of resolution. The dissonant tone usually may be regarded as a tone of the following chord, heard prematurely on an unstressed part of the preceeding beat. It functions rhythmically as an anticipation of the next chord, but one which resolves in another voice by substitution. The resolution of the momentary dissonance often results from a skip of a third in a direction opposite to that of the approach. Melodically, the dissonant tone functions rhythmically as an anticipation of the next chord, but one which resolves in another voice by substitution. The resolution of the momentary dissonance often results from a skip of a third in a direction opposite to that of the approach. Melodically, the dissonant tone functions as an embellishment of the two tones which form the approach and departure.

Harmonic analysis of the first chord gives the nonharmonic tone the appearance of an unresolved dissonance. However, the unstressed position of the dissonance in the measure and the immediate appearance of the tone of resolution in the following harmony give the aural effect of a direct resolution. Some theorists regard this pattern as a form of anticipation, depending upon their interpretation and definition of the device.

This device is known most frequently as an escape tone, or using the French term, an échappée. Prout (22) calls this device a changing tone.[1] Forte (7) applies the term submetrical auxiliary tone to this same device.[2] This device is classified as a free auxiliary[3] by Rimsky-Korsakov (26), and as a free anticipation[4] by Cutter. Cutter considers the free anticipation and the free tone to be closely related, the distinction being in the harmonic relationship between the dissonant tone and the chord of resolution. He defines the term free anticipation as "a free tone quitted by a skip, which belongs to the following chord."[5] Cutter defines a free tone as a nonharmonic tone "Quitted by a skip, up or down, and not a member of the following chord."[6]

The term escape tone is suggested for this device on the basis

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[1]Prout, p. 114.

[2]Forte, p. 330.

[3]Rimsky-Korsakov, p. 95.

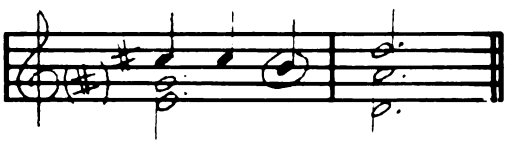
[4]Benjamin Cutter, Harmonic Analysis (Boston: Oliver Ditson Co., 1902), p. 24.

[5]Ibid, p. 31.

[6]Ibid.

of its general acceptance in current usage and the historical consistency of its application to this device. The escape tone pattern is approached upward by step and resolves downward by skip, often a skip of a third, being an embellishment of a descending scale step in the melodic line. The escape tone appears on an unstressed beat or fraction of a beat, is heard after the chord is sounded, and resolves in the same chord or in the next chord. The inversion of the escape tone seldom is found in eighteenth and nineteenth century harmony. Kohs (13) notes a rare exception to the downward resolution of this device in the so-called "Landini Cadence," in which the sixth scale degree is inserted between the seventh (leading tone) and the octave.[1] This pattern is named after Francesco Landini (1325-1397), and is found in the works of many fourteenth and fifteenth-century composers (see Example 31).

Example 31.



Norris (19) illustrates the same Landini Cadence pattern and states the dissonant tone may be analyzed either as a passing note or as an appoggiatura. He suggests that the proper term for this inversion of the escape tone is passing note,[2] which is in direct contradiction with his own definition of the passing tone, a tone "foreign to the harmony, passing diatonically or chromatically between other notes belonging to the harmony."[3] The terminology and the analysis given by

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[1]Kohs, p. 83.

[2]Norris, p. 107.

[3]Ibid., p. 105.

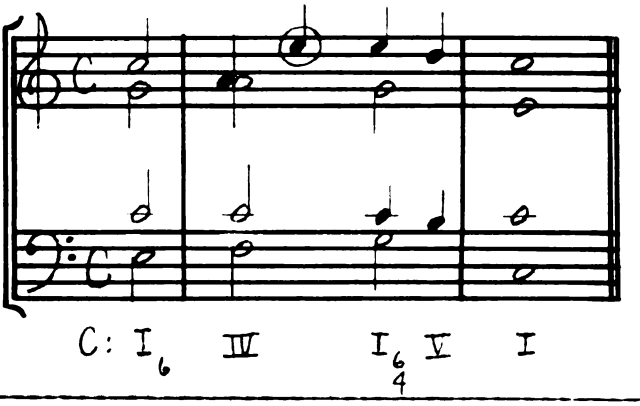
Morris for the inverted escape tone is highly irregular as well as inconsistent.

Piston defines the échappée specifically, and in accordance with the approach-departure classification. He then provides for the inclusion of variations in the use of this device. "The echappee leaves a note by step and then proceeds by a skip of a third in the opposite direction. The first note may be a harmony note or a non-harmonic tone, such as a suspension or an appoggiatura. The note following is usually a harmony note, but may be an appoggiatura or a cambiata. Larger skips than a third may be found, often the result of the interpolation of an appoggiatura."[1]

The escape tone sometimes is used as part of a pattern involving more than one dissonant tone, and as such becomes one of the combined nonharmonic devices to be discussed subsequently. The term escape tone is reserved for the single nonharmonic pattern containing only one dissonant tone. The escape tone is defined in the approach-departure classification as a nonharmonic tone approached by step and resolved by a skip, usually a third, in the opposite direction.

7. Approached by Skip and Left by Prolongation.

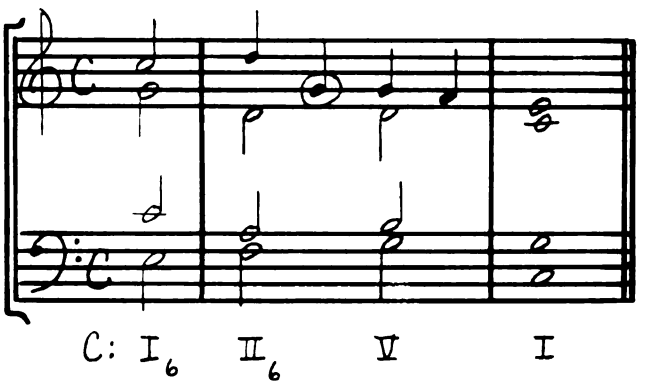
Example 32.



[1]Walter Piston, Principles of Harmonic Analysis (Boston: E. C. Schirmer Music Co., 1933), p. 34.

This nonharmonic tone pattern occurs infrequently, and is not given a distinguishing name as an independent device by most theorists. The resolution by prolongation relates this device closely to the anticipation when the dissonant tone occurs on an unaccented part of the measure or beat. It may with some justification be considered an irregular form of the anticipation (see device number four, page 71). Sessions (30) illustrates this device and designates it an anticipation (see Example 33).[1]

Example 33.



Emery (5) names a nonharmonic tone approached by skip a skip-note, which he defines as "a variety of passing note to which, but not from which, a voice may skip. It differs from the appoggiatura in comming after the chord, or accent, while the appoggiatura comes on the chord or accent."[2] Although this definition seems to be specific, no distinction is made between a dissonant tone resolved by prolongation and one resolved by step. The definition is incomplete in this respect, leaving further opportunity for misinterpretation.

Hindemith (10) also regards this device as a form of anticipation, using the weak metric position of the dissonant tone and its

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[1]Sessions, p. 132.

[2]Emery, p. 96.

resolution by prolongation as the basis of his classification.[1] The difference in the manner of approach is regarded as a secondary factor by Hindemith. The common characteristics of the two patterns are used to justify placing both devices in the same category.

The terms passing tone and appoggiatura, when applied to this device, are defined in so many different ways as to defy classification. A broad interpretation of these two terms is used by some theorists to encompass infrequently used nonharmonic devices such as those illustrated in Examples 32 and 33, but this practice precludes a precise definition of terminology. With a similar degree of inexactness, the terms unprepared dissonance and unprepared suspension sometimes are used for the accented form of this device, the resolution of the dissonant tone by prolongation being regarded as irregular.

Wishart greatly simplifies the classification of nonharmonic devices by placing them in two general "families" or categories, (1) the "family of appoggiaturas and changing notes", and (2) the "family of suspensions."[2] This device appears to be included in his second category, but without a specific name given to the device. To solve the problem of nomenclature and definition of nonharmonic tones, Wishart dismisses the matter with his statement that "The ear is the sole judge, and hit or miss methods are by far the best way of learning to master them."[3]

Two limitations in the musical usefulness of this device in

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[1]Hindemith, p. 40.

[2]Peter Wishart, Harmony; a Study of the Practice of the Great Masters (London: Hutchinson's University Library, 1946), p. 114.

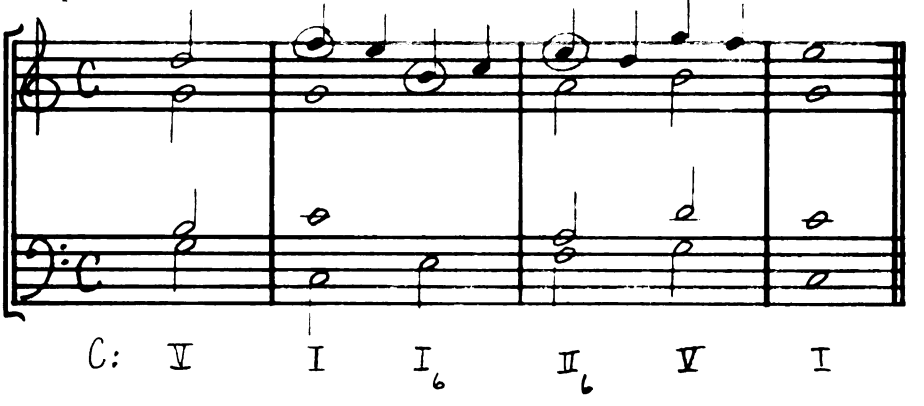
[3]Ibid.

eighteenth- and nineteenth-century styles result from both the approach by skip and the departure by prolongation. A dissonant tone which is approached by skip is a stronger and less conventional use of dissonance in this period than one which is approached by step or by prolongation. When a dissonant tone is reached by skip, traditional usage indicates that a resolution by step is more acceptable to the ear.

The close relationship of this device to the anticipation and its infrequent occurrence in traditional harmonic styles do not justify its having a special term. It will be regarded here as an irregular and little used form of the anticipation.

8. Approached by Skip and Left by Step.

Example 34.



A greater variety of terms is applied to this device than to any other of the basic nonharmonic devices. The following terms are among the more frequently encountered names for this device, both when the dissonant tone is accented and when it is unaccented.

1. appoggiatura
2. unprepared suspension
3. indirect suspension
4. free suspension
5. changing tone
6. cambiata
7. neighboring tone
8. passing tone

The direction of approach to the dissonance, either up or down, is not regarded as an important differentiating factor in any of the textbooks examined. The direction of resolution always is in the opposite direction to that of the approach. The dissonant tone occurs both in an unstressed and a stressed metrical position in the measure. Some theorists apply the same term to both the accented and the unaccented forms of this device. Other theorists prefer the terms appoggiatura or suspension for the accented form, and the terms changing tone, cambiata, neighboring tone, and passing tone for the unaccented form.

The variety of definitions given the above terms compounds the difficulty of establishing a consensus regarding terminology. The conflicting use of terms is most evident where no systematic attempt is made to classify nonharmonic tones in some logical manner, or where the definitions are so broad as to include divergent nonharmonic devices.

The meaning of any term must be established by definition, and the definition must have relevance to the classification. Since all of the above terms have been applied to devices other than this particular one, an organized system of classification is essential to avoid an equivocal use of terminology. The ambiguous use of terms appears to be the greatest source of confusion in the explanation of this particular device, even though the device may be identified easily as a specific nonharmonic pattern.

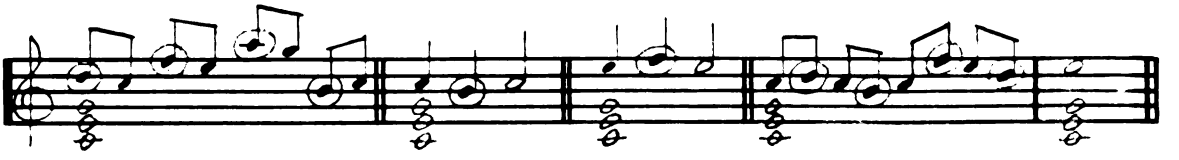
Richter (25) uses the term changing note for this device, but gives the term a broad interpretation which includes neighboring tones, making no distinction between an approach by step or by skip.

> Changing notes . . . are those tones foreign to the harmony, which either appear in the character of a suspension or appoggiatura at the time of entrance of the harmony (thus

> in a sense upon the accented part of the measure, and attach themselves to the harmonic notes, or, after the manner of the passing notes upon the unaccented part, serve for the melodic adornment of two like notes.
>
> The changing note can therefore appear in skips, it must however be joined closely to the harmonic note.[1]

Richter analyzes the nonharmonic tones in the following example as changing notes.

Example 35.



Alchin (1) calls this device an appoggiatura, defining it precisely as a "bytone taken by leap and resolved by step."[2] Murphy (17) uses the same term and definition, describing the device as a nonharmonic tone "entered by skip and resolved stepwise."[3] If the device is very brief, he notes, the same device then is called an acciaccatura.

Tweedy (31) uses the term appoggiatura for this device, defining it as "an unprepared neighboring tone."[4] He thus qualifies his previous definition of a neighboring tone by now permitting a neighboring tone to be reached by a skip. The distinction between a neighboring tone and an appoggiatura becomes obscure with this interpretation.

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[1]Richter, p. 129.

[2]Alchin, p. 73.

[3]Murphy, p. 170.

[4]Tweedy, p. 170.

Goetschius states directly that "the Appoggiatura is an unprepared neighboring-note."[1] He then interpolates a notation to explain his use of the term neighboring-note for more than one device.

> The distinction is purely theoretical and has no practical value. As stated [previously], every inharmonic tone is a Neighbor, no matter what specific name it may assume. The student is therefore advised to adopt the generic term "Neighboring-note" for the Appoggiatura--and also for the unprepared Suspension.

Piston gives a more inclusive definition of the term appoggiatura, which includes the approach by skip, by step, or by repetition.

> The appoggiatura (Italian appoggiare, to lean) is distinguished by its rhythmic stress, or melodic weight. It appears on the beat, most effectively with a change of harmony. It may enter by skip, step, or repetition, and resolves by step up or down, to a note of the chord. The appoggiatura entering by repetition should not be confused with the suspension. The distinction is of great importance as the two interpretations are widely different in rhythm and style.[3]

Hull states simply that an appoggiatura is "an accented passing-note."[4] He defines passing tones in an equally broad fashion as notes "which do not form any part of the chord,"[5] thus avoiding a precise definition of terminology.

Foote and Spalding (6) use the term appoggiatura to include both a step and a skip to the dissonant tone, defining the term as "a tone foreign to the chord with which it occurs, and entered by step or by leap."

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[1] Goetschius, p. 158.

[2] Ibid.

[3] Walter Piston, Principles of Harmonic Analysis (Boston: E. C. Schirmer Music Co., 1933), p. 32.

[4] Hull, p. 93.

[5] Ibid.

[6] Foote and Spalding, p. 219.

Chapple [illegible] adds his views on appoggiatura, which results in very nebulous definitions. He states that "appoggiaturas are similar to passing notes in as much as they can be diatonic or chromatic."[1] He adds in a subsequent explanation that appoggiaturas function in two ways.

> 1. Without preparation by the previous note in the same voice.
>
> 2. With preparation by the previous note in the same voice.
>
> In the second case the prepared appoggiatura can be tied thus creating a <u>suspension</u>. It is a debatable point whether the word "suspension" came from the appoggiatura having been prepared, or tied. The author feels that the first hypothesis is correct, and that the tying of the note does not affect the musical sense, as the nature of the instrument will determine more often than not whether the tie is used or omitted.[2]

Chapple concludes from his analysis that "therefore any prepared appoggiatura is a suspension."[3] To compound the confusion in his use of terminology, Chapple concludes that "a passing note can become a suspension by allowing it to continue as an appoggiatura."[4] The examples cited by Chapple provide no clarification of his terminology and definitions, but indicate a general overlapping of the three terms he applies to this device. The absence of any systematic classification is reflected in the disorganized use of terms and in the formulation of definitions.

Frequently the meaning of inadequately defined terms may be deduced from given examples if the examples show consistency of use.

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[1] Chapple, p. 33.

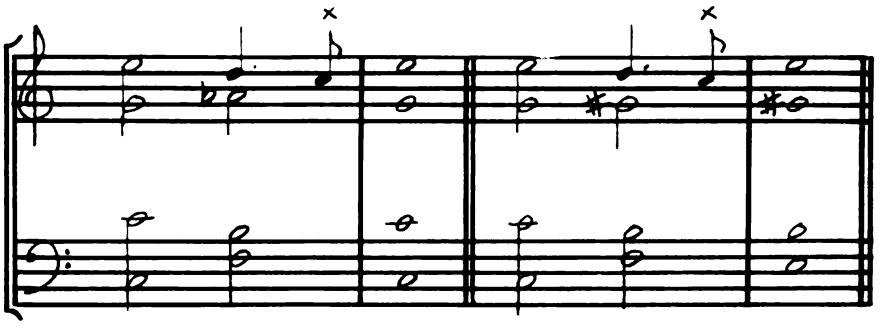
[2] <u>Ibid.</u>, p. 69.

[3] <u>Ibid.</u>, p. 70

[4] <u>Ibid.</u>

When the examples themselves contradict the given definitions in textbooks, the instructional process is greatly hindered. An example from Practical Harmony, Part II, by Norris (19) illustrates this particular kind of confusion. Norris defines a passing tone as a tone "foreign to the harmony, passing diatonically or chromatically between other notes belonging to the harmony." In the same chapter, Norris gives the following musical examples, identifying the tones marked "x" as "passing notes."[2]

Example 36.



In a footnote to these examples, Norris states, "X may be analyzed either as passing notes, or as appoggiaturas."[3] Neither the example nor the analysis correlates with the definitions he gives for the terms passing tone and appoggiatura. "The appoggiatura, like the suspension, is a note which momentarily occupies the place of the note to which it eventually moves. It is usually a note foreign to the harmony, and ordinarily comes on an accented part of the measure, resolving either up or down."[4]

---

[1]Norris, p. 105.

[2]Ibid., Ex. 141, p. 107.

[3]Ibid., p. 107.

[4]Ibid., p. 99.

In spite of attempts to appear specific regarding nonharmonic devices, many of the older textbooks imply an underlying judgment, proclaimed recently by Wishart, that general, hit or miss methods are the best approach to learning nonharmonic devices (see page 88). Recent theory books exhibit a greater concern for methodology and a systematic structuring of content for classroom instruction, with a slight trend toward a more uniform use of terminology.

The logic of any system of classification requires that each device in general use be given a specific name, and that the same term should not be used for two or more different devices in the classification. The term appoggiatura is suggested as the most suitable term for a dissonant tone approached by skip and left by step. Recent usage indicates this term is more widely accepted for this device than any other term.

The variety of definitions used for the term appoggiatura attests to the need for a specific definition for each term if nonharmonic tone terminology is to be meaningful in theory instruction. The definition suggested by the author is based upon the approach-departure classification, and stated in a manner to avoid more than one meaning for the term. The appoggiatura is defined as a nonharmonic tone approached by skip and resolved by step in the opposite direction, with the dissonant tone appearing in an accented metrical position. The rhythmic qualification is based upon frequency of use in harmonic practice.

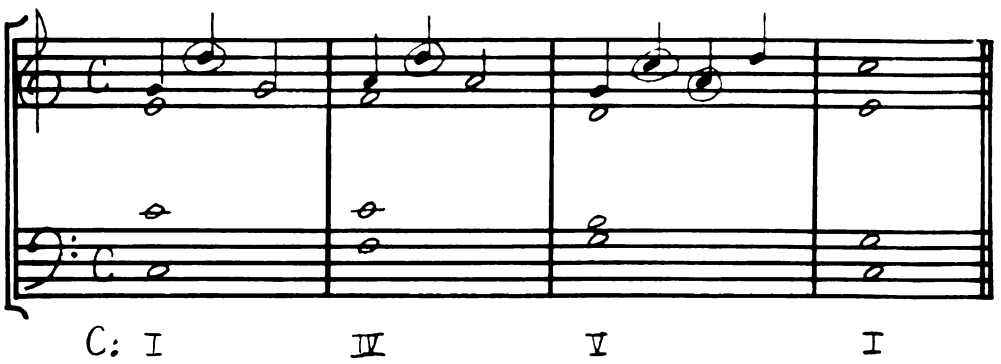
By following a consistent system of definition, using the melodic characteristics of each device as the primary basis of classification, a device remains essentially the same pattern whether the

dissonant tone is accented or unaccented. In actual use a device may occur only as accented dissonance, as in the case of the suspension; it may occur only as unaccented dissonance, as in the case of the anticipation, or it may occur either as accented or unaccented dissonance, as in the case of the passing tone.

The more systematic presentations of nonharmonic tones given by McHose (14), Reed (24), Ottman (20) and Kohs (13), while they differ in a number of respects, are in agreement with this interpretation of the term appoggiatura. They give the same definition of the term and define the nonharmonic tone as an accented dissonance. Equally significant is the fact the the term appoggiatura is reserved only for this particular device as defined, avoiding multiple meanings of the term.

9. Approached by Skip and Left by Skip.

Example 37.



The nonharmonic tone encompassed in this device is used infrequently in eighteenth- and nineteenth-century harmonic practice. As a nonharmonic tone, by definition it must be dissonant to at least one of the chords with which it appears. The effect of its resolution by skip is that of an unresolved dissonance. In the same way, an approach by skip is not characteristic of the melodic use of dissonance, but

rather tends to give this device more harmonic significance.

This device has been variously referred to as a passing tone, auxiliary, neighboring tone, changing tone, and free tone. The term free tone is more commonly in use in a few recent harmony books, and is suggested as the most suitable choice of terminology. All of the other terms applied to this device are used with multiple meanings, and therefore of limited usefulness to identify this particular device. Some of the various alternate names originated through the inclusion of patterns in which the melodic line skipped to and from another chord tone. Recent practice of classifying only dissonant tones as "nonharmonic" tones renders obsolete some of the definitions given alternate terms.

Many theorists do not include this device in their enumeration of nonharmonic devices because of the infrequency of its occurrence in eighteenth- and nineteenth-century harmony. Reed (24) illustrates the free tone as one of eight basic devices, but gives no further attention to it in his discussion of nonharmonic tones.[1] Nelson (14) disregards this device because it is found rarely in the music of Bach. Some theorists indirectly relate this device to an unprepared suspension, or to an appoggiatura. A skip to the dissonant tone provides the appearance of a "free" tone, but in most cases the dissonance then resolves stepwise. A dissonant tone may be approached by skip, or left by skip, but rarely both. An unresolved dissonance is seldom found in music until the late nineteenth and early twentieth centuries. When a "free" tone does occur, it more often is not an actual dissonance, but a chord tone reached and left by skip, and is not to be classified as

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[1]Reed, p. 57.

a nonharmonic tone.

Ratner (23) observes that dissonant tones become increasingly important in music of the late nineteenth century, with accented dissonances and unresolved dissonance contributing to the increase of tension. "Their importance then overshadows that of their resolutions, until finally the resolution may be omitted entirely and the non-chord tone is accepted into the chord itself."[1]

Limiting the classification of nonharmonic tones to those devices used during the period of tonal music represented by the style of the Bach chorales, the unresolved nonharmonic tone is so unusual as to require no particular classification or terminology for pedagogical purposes.

The basic nonharmonic devices examined above are those that contain only one dissonant tone and which are identified by the interval of approach, the interval of departure, and the metrical position of the dissonance in the measure. Not all patterns of usage possible under this type of analysis are found in actual use, however. Those patterns that satisfy the need for both tension and relaxation in a melodic sense have been most frequently employed by composers.

Combined Nonharmonic Devices

The nine basic single-tone nonharmonic patterns discussed above represent the total possibilities of nonharmonic usages in which only one dissonant tone is used. Additional nonharmonic patterns are possible in combination devices. A nonharmonic "device" is understood to consist of a pattern of three or more tones, including an initial chord tone which is the tone of approach, one or more dissonant tones, and a

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[1]Ratner, p. 163.

tone of resolution. Three general types of combined nonharmonic usages may be identified.

1. Patterns in which two or more nonharmonic devices occur simultaneously in different voices.

2. Patterns in which two or more nonharmonic devices occur successively in the same voice.

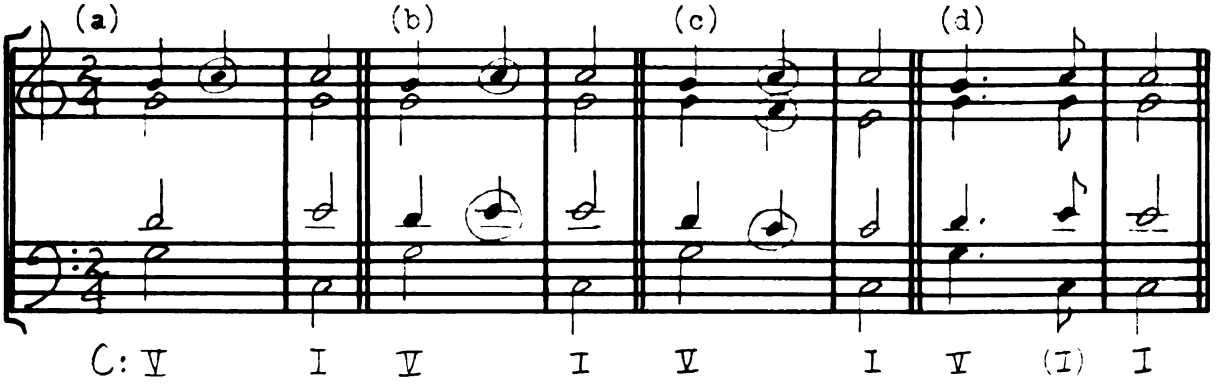
3. Patterns in which two or more tones appear between the tone of approach and the tone of resolution.

The first type, the combination of two or more nonharmonic tones simultaneously, may involve the same device or different devices. For example, a passing tone may be used with another passing tone, or a passing tone may be used with a suspension. Nonharmonic tones used simultaneously in two, three, and four voices are called double, triple, and quadruple nonharmonic tones. The occurrence of the same device simultaneously in four voices, the quadruple nonharmonic tone, is used very infrequently. Nonharmonic usage requires that at least one tone of the preceding or the following chord be heard against the dissonant tones. When quadruple nonharmonic tones occur in four-part writing and all voices move in such a way that they are consonant with each other, a new chord results and no dissonance occurs. In regard to terminology, an entire chord which thus anticipates the following chord in all voices is not properly called an "anticipation" in the nonharmonic sense. The "anticipation" in this case is rhythmic, the harmony progressing in advance to the chord which would normally occur on the following beat.

Example 38a illustrates a single anticipation, 38b a double anticipation, and 38c a double anticipation combined with a passing tone in the alto voice. The chords containing nonharmonic tones in Examples 38b and 38c may be analyzed theoretically as tonic six-four

chords. The continuation of the dominant in the bass gives the aural effect of three nonharmonic tones until the expected change of harmony is reached on the following beat. The analysis indicated by the harmonic rhythm allows these examples to be identified as nonharmonic devices. Example 38d illustrates a rhythmic anticipation of the tonic chord, in which no dissonance is present.

Example 38.



The most frequent occurrence of the double, triple, and quadruple nonharmonic tones is found in the use of passing tones.[1]

The main principle guiding the use of nonharmonic tones combined simultaneously is that no usage is permissible which allows faulty voice progressions or objectional parallel movement of voices. Otherwise, each nonharmonic device in simultaneous combination is a single entity and is treated as any single-tone nonharmonic device. No special names are found applied to devices in simultaneous combination, therefore the problem of terminology and definition does not arise in relation to double, triple, and quadruple nonharmonic tones. Terminology is of greater concern relative to the combination devices which use two or more nonharmonic tones successively in the same voice.

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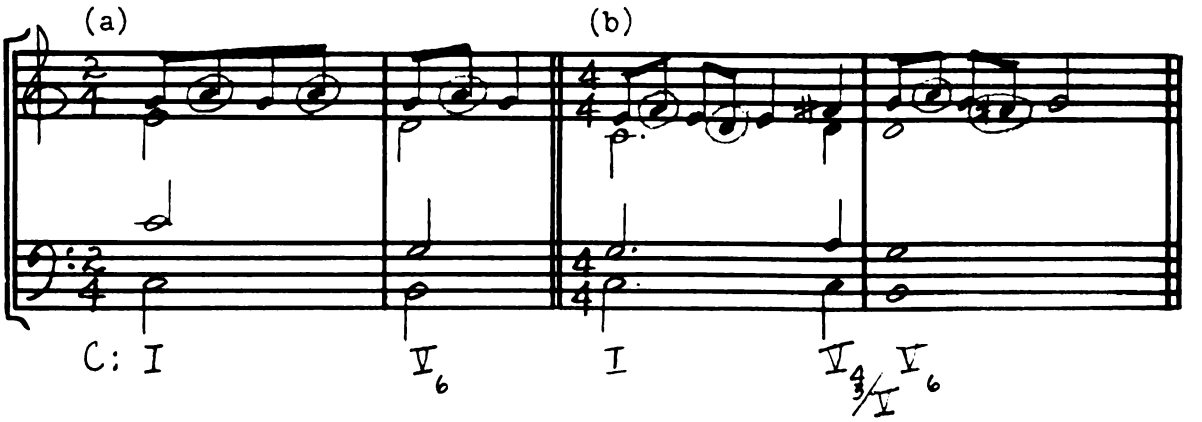
[1]For a detailed discussion of single, double, triple, and quadruple passing tones, see McHose (14), page 105.

The second type of combined devices, the occurrence of two or more nonharmonic devices in succession in the same voice, may be analyzed as successive single-tone devices. No special analysis or terminology is required other than that provided by the classification system for single-tone devices. The repetition of neighboring tones is the most common form of this usage. Typical patterns are those in which an upper neighboring tone is repeated (Example 39a), and those in which upper and lower neighboring tones appear in alternation (Example 39b).

Example 39.



The device illustrated in Example 39b has been confused by the use of a number of terms to identify it. The terms changing note, alternating tone, auxiliary tones, embellishing tones, and nota cambiata are among those used for this device by theorists. The problem of nomenclature is solved simply by analyzing the pattern as two consecutive neighboring tones, upper and lower. This analysis places the device in the single-tone classification and requires no additional terminology which might confuse the analysis and description of the device.

The third type of combined nonharmonic tone usage, in which two or more tones appear between the tone of approach and the tone of

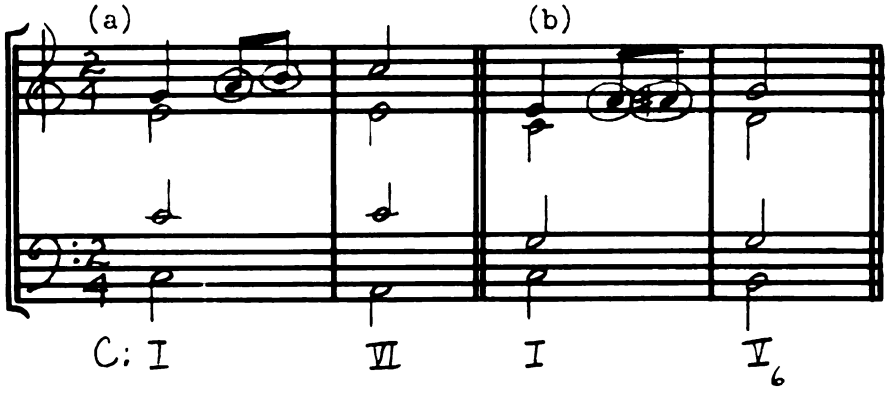
resolution, is identified by a variety of terms and descriptions. In reference to the approach-departure classification, these devices may be placed in two categories.

1. Patterns in which the dissonant tones are approached and left scalewise in the same direction.

2. Patterns in which the dissonant tones are approached and left in opposite directions.

The first category is a passing tone device which employs two or more dissonant tones in succession between the tone of approach and the tone of resolution. This pattern is found often in a melodic movement from dominant to tonic, through scale degrees 5-6-7-8 (Example 40a). Two or more dissonant tones may occur in chromatic movement between scale degrees, providing chromatic passing tones (Example 40b).

Example 40.

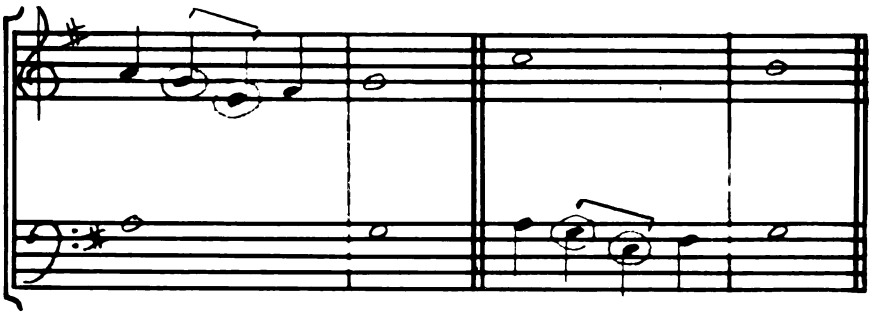


The second category of devices classified under type three includes a variety of ornamental devices in which a dissonant tone moves to another tone, either consonant or dissonant, before moving with a change of direction to the tone of resolution. This pattern generally is characterized by a skip of a third between two dissonant tones, both of which are neighboring tones of the tone of resolution.

The earliest form of this device to be identified by a specific name is known historically as the nota cambiata. The term, of Italian

origin, means literally "exchanged note." The device has been in use sine the period of early polyphony, and was first associated in print with the term cambiata, more commonly known as changing tone, by Johann Joseph Fux in 1725.[1] The term has been in continuous use since that time, and historically may be recognized as an appropriate term for this device (Example 41).

Example 41.



Much confusion has resulted from the indiscriminate application of the term "changing tone" to most of the various nonharmonic devices containing two or more dissonant tones. If the term is applied to any device on the basis of historical usage, its use must be reserved for the particular device shown in Example 41 in order to avoid endless confusion of terminology. The general misapplication of this term during the past sixty years has resulted in a seemingly insurmountable degree of confusion among theorists. The term changing note might well be added to the list of obsolete terms which have proved inadequate for the more precise methods of analysis required in twentieth century pedagogy.

The first explicit clarification of analysis and terminology

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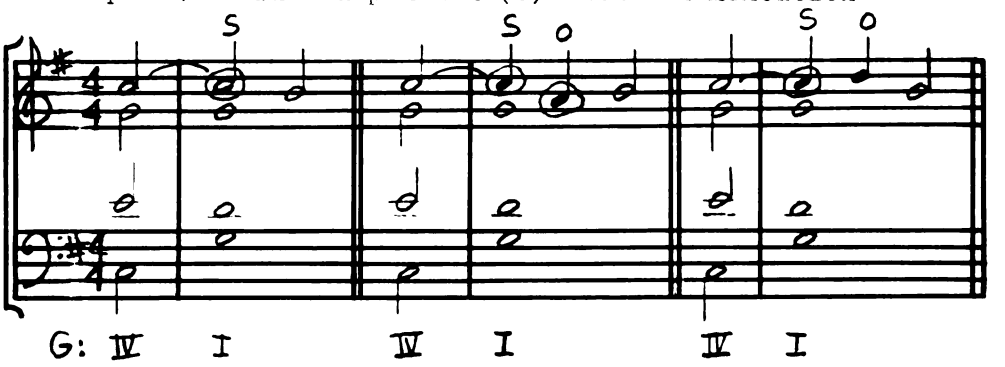
[1]Johann Joseph Fux, Steps to Parnassus, Trans. and ed. by Alfred Mann (New York: W. W. Norton and Co., 1943), p. 51.

for this category of nonharmonic devices was given by H. Owen Reed in Basic Music.[1] Dr. Reed recommends that nonharmonic devices containing two or more tones between the tone of approach and the tone of resolution be analyzed as basic single-tone nonharmonic devices with ornamental resolutions. In referring to some of the devices labelled changing tones by theorists, Dr. Reed states, "An astounding lack of uniformity exists in the nomenclature of these (as well as other) nonharmonic tones. It is in the hope of bringing some order to this chaos that the 'ornamental tone' analysis, so consistently applied to the suspension pattern, is recommended here."[2] The problem of terminology and definition is greatly simplified by the consistent use of this analysis for all devices in this category. All ornamental devices may be related to the underlying single-tone device, thus requiring no additional nonharmonic terms for identification or classification.

The following devices are analyzed by Reed as basic devices with ornamental resolutions of the dissonant tone.[3] Each example gives the basic device first, followed by the same device with ornamental resolution. Each ornamental tone is analyzed with the abbreviation "O".

Example 42. The Suspension (S) with Ornamentation.

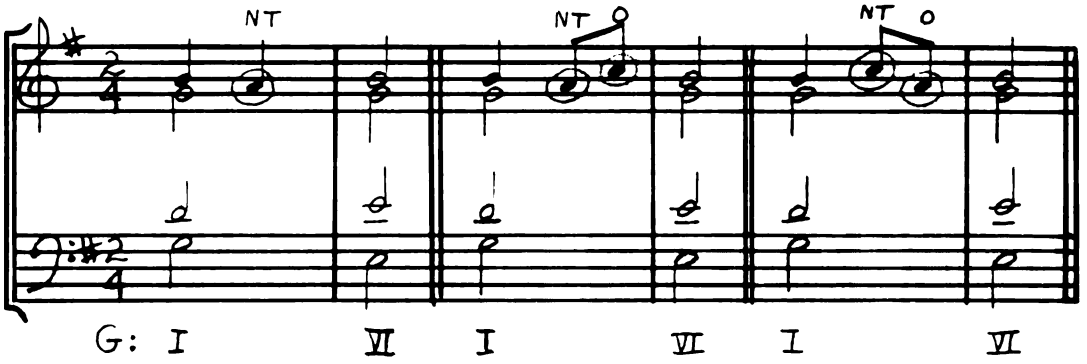


[1]H. Owen Reed, Basic Music (New York: Mills Music, Inc., 1954).

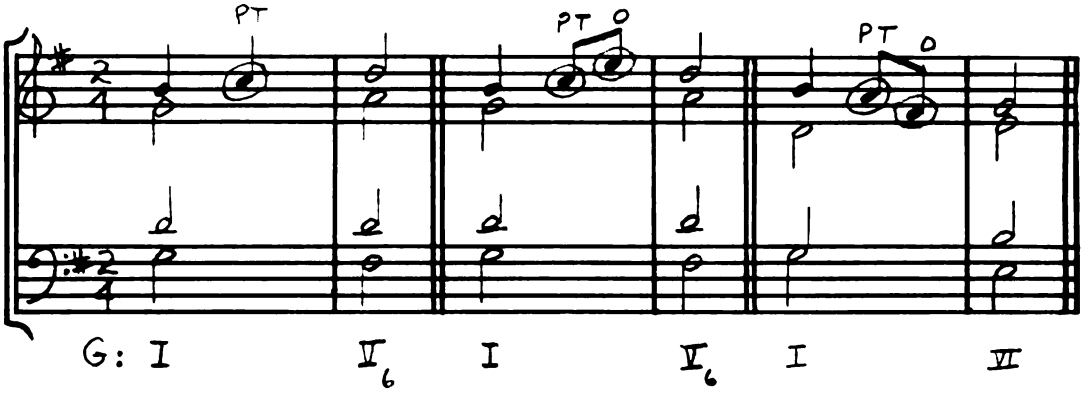
[2]Ibid., p. 58.

[3]Ibid.

Example 43. The Neighboring Tone (NT) with Ornamentation.

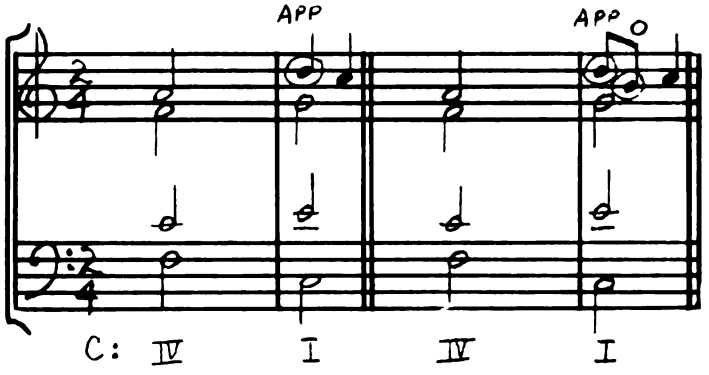


Example 44. The Passing Tone (PT) with Ornamentation.

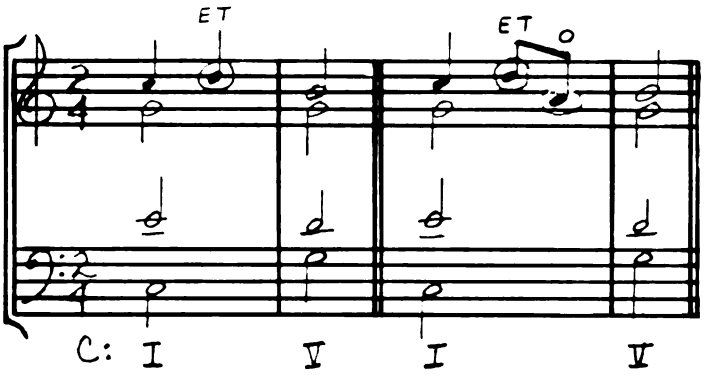


The same analysis may be applied to the appoggiatura and to the escape tone when these devices are embellished by ornamental tones. Each device is identified by the basic pattern of approach and departure which underlies the embellished device.

Example 45. The Appoggiatura (App) with Ornamentation.



Example 46. The Escape Tone (ET) with Ornamentation.



The avoidance of the term "changing tone" and other terms which have been used in a broadly descriptive manner for a number of devices eliminates a source of great confusion in the pedagogy of theory. The classification and terminology of nonharmonic tones is in this way limited to nine basic categories with only nine terms used to identify all possible devices. The concept of ornamental patterns imposed upon the basic devices provides for the inclusion of every possible pattern found in eighteenth- and nineteenth-century music. A summary of the terminology variants used in the thirty-two books of the Select Bibliography is given in Appendix II. The use of the above suggested classification and terminology reduces this complexity of nonharmonic terms to a system of analysis and nomenclature which is much more practical for purposes of instruction in music theory.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was undertaken to investigate the terminology variants applied to nonharmonic tones in the pedagogy of music theory and the variety of definitions given for nonharmonic tone nomenclature. Two hypotheses were established for the study, (1) that theory instruction can be more effective and learning can be facilitated by the establishment of a logical system of nonharmonic tone nomenclature, and (2) that a systematic classification of nonharmonic tones can provide a basis for a standardized nomenclature. A supplementary background for the study was established through an examination of literature concerned with symbols of communication in music, and a study of nonharmonic tones as a function of dissonance in the evolution of harmony.

There is little disagreement among music theorists regarding the appropriate content of basic harmony courses which deal with eighteenth and nineteenth century music theory. The lack of a standard terminology in music theory, however, is recognized by most teachers of the subject as a distinct handicap to pedagogy. The problem of nomenclature is being met with attempts to reorganize and re-structure the classifications of nonharmonic devices in numerous harmony textbooks published in recent years. With larger music theory classes and a decrease in the amount of time devoted to individualized instruction in music, the need for greater standardization of nomenclature becomes

more apparent. Standardization of nomenclature is just as essential for effective communication in music theory instruction as it is in other subject fields.

A system of naming in the biological sciences has long been established in the binomial system. Each species is given two names, the first being the genus to which a species belongs, and the second being the species name. A most important characteristic of a nomenclature system is that duplication of names is avoided. No such systematic approach to nonharmonic tone nomenclature has been established, nor, to the author's knowledge, has any comprehensive study been made of nonharmonic tone terminology to establish a basis for a systematic naming and defining of terms.

This study indicates that the primary problem in arriving at a logical system of nomenclature lies in the manner of classifying nonharmonic tones. An examination of the terminology used during the past two hundred years reveals that names change their meanings, and consequently nonharmonic tone terms acquire a number of different meanings through attempts to clarify definitions. There is a tendency to adhere to familiar terms, even though the concepts embodied in them undergo change as a result of new insights into analysis. As a result, the numerous definitions given commonly used terms appear to be a greater source of confusion in the pedagogy of theory than the choice of terminology itself. On the other hand, attempts to establish new terminology for nonharmonic devices has contributed little to a clarification of the problem. Too many concepts and definitions have become attached to the terminology.

Duplication of names and multiple definitions, in many instances, have resulted from inadequate classification or from the complete absence of any system of classification. What is needed is a precise definition for each term, an established concept for each symbol. An attempt has been made in this study to organize nonharmonic devices in a systematic fashion and to provide a logical basis for a system of nomenclature.

The classification system proposed here attempts to establish a name for each device which has historical authority for its use and which has current acceptance. An examination of the various possible ways of classifying nonharmonic devices indicates that a melodic approach is the most useful basis for primary classification. Duplication in classification and terminology can be avoided by describing each device in terms of its melodic approach and departure as the primary basis of classification. Sub-classification can be established through the use of secondary characteristics of the devices. Specifically, the direction of melodic movement, the metrical position of the dissonant tone, and the direction of resolution in relation to the direction of approach are characteristics which distinguish similar devices where secondary distinctions are required. Applying these principles of classification to the nonharmonic devices of the eighteenth and nineteenth century harmonic styles, the following system of nomenclature is proposed. The definition of each proposed term is based upon its description in the approach- departure classification.

Single Nonharmonic Devices

1. Approached by prolongation and Left by Prolongation.

Pedal Point: A tone approached by preparation and sustained, usually in the bass, while the other voices move through a succession of chords which create a dissonant relationship with the sustained tone. The pedal point begins and ends as a chord tone, with the resolution by prolongation.

2. Approached by Prolongation and Left by Skip.

Suspension: An accented nonharmonic tone approached by preparation, either tied or repeated, which resolves stepwise on an unaccented portion of the measure, usually downward.

3. Approached by Prolongation and Left by Skip.

In traditional harmonic practice this pattern is regarded as an incomplete nonharmonic device containing an unresolved dissonance, and as such is not given an identifying term. If the dissonant tone is resolved in another voice of the chord of resolution, the resulting pattern may be classified as an irregular form of the suspension, rarely found in the music of the eighteenth and nineteenth centuries.

4. Approached by Step and Left by Prolongation.

Anticipation: A nonharmonic tone approached by step and occurring in a weak rhythmic position, which resolves on an accented beat with a change of harmony.

5. Approached by Step and Left by Step.

Passing Tone: A nonharmonic tone approached by step and resolved by step in the same direction. The passing tone may be accented or unaccented.

Neighboring Tone: A nonharmonic tone approached by step, either upward or downward, and resolved by step in the opposite direction. The neighboring tone may be accented or unaccented.

6. Approached by Step and Left by Skip.

Escape Tone: A nonharmonic tone approached stepwise in an upward direction and resolved by a skip of a third in the opposite direction with a change of harmony.

7. Approached by Skip and Left by Prolongation.

This nonharmonic pattern occurs infrequently in eighteenth and nineteenth century music and therefore is not given a distinguishing name in this classification. It may be regarded as an irregular form of the anticipation.

8. Approached by Skip and Left by Step.

Appoggiatura: A nonharmonic tone approached by skip and resolved by step in the opposite direction, occurring on an accented or unaccented beat of the measure.

9. Approached by Skip and Left by Skip.

Free Tone: A nonharmonic tone approached by skip and left by skip in the opposite direction.

Combined Nonharmonic Devices

The nonharmonic devices combined simultaneously in two or more voices require no special terminology. Each device used in this way is a single nonharmonic tone device and is identified according to its approach and departure as one of the basic devices described above. Devices which are used in succession as repetitions of a single device likewise are identifiable as basic single-tone devices and are analyzed as such, requiring no additional terminology or classification for their identification.

The approach-departure classification of nonharmonic tones results in a total of nine distinct patterns which are named and defined for pedagogical purposes. The terminology evolved from this classification is proposed as a complete nonharmonic tone nomenclature.

Complete Nonharmonic Tone Nomenclature

1. Pedal Point
2. Suspension
3. Anticipation
4. Passing Tone
5. Neighboring Tone
6. Escape Tone
7. Appoggiatura
8. Free Tone
9. Ornamental Tone

The proposed nomenclature of nine terms, when defined in reference to the approach-departure system of classification above, encompasses all the standard patterns of nonharmonic tone usage which recur in eighteenth and nineteenth century harmonic practice. A specific definition for each term based upon an approach-departure analysis identifies each device by description, and precludes the use of the same term for more than one device. Unessential variations that may be found in these basic devices may be explained in reference to the basic device in question without the necessity for additional terms or definitions. The infrequent variations which may be encountered are largely ornamental in nature, without sufficient deviation to obscure the basic pattern or to necessitate the compounding of terminology. An examination of any ornamented pattern with the ornamental tones omitted reveals the basic pattern as one of the devices described above.

The following generalizations may be made from the approach-departure classification of nonharmonic tones.

1. Dissonant tones tend most strongly to resolve stepwise up or down. Resolution by prolongation occurs less frequently, and resolution by skip may be regarded as an exception.

2. A dissonant tone approached by skip tends to resolve stepwise in the opposite direction.

3. Accented nonharmonic tones resolve stepwise up or down.

4. Unaccented nonharmonic tones may resolve by prolongation, step, or skip.

5. The approach and departure are classifying factors in all nonharmonic tones.

Conclusions

1. An examination of the music theory textbooks used for this study reveals a great variety of terms used to identify nonharmonic tones. No consistent relationship is found between the devices described and the terms or symbols used to represent them.

2. More variety exists in the definition of nonharmonic terms than in the choice of terminology itself.

3. No two theorists appear to agree entirely in the terminology and definitions of nonharmonic tones.

4. A large percentage of theory textbooks contain no systematic presentation of nonharmonic tones.

5. The confusion of nomenclature and the use of multiple meanings of terms is more extensive in those textbooks which present no systematic classification of nonharmonic tones.

6. Recently published textbooks devote more attention to nonharmonic tones and present them in a more systematic manner than do older textbooks. There is no general agreement in matters of classification and nomenclature.

7. Nonharmonic tones can be presented in a systematic manner to facilitate instruction and learning.

8. A logical and systematic classification of nonharmonic tones is a prerequisite to a consistent nomenclature.

9. A system of classification using a melodic approach and departure analysis is the most inclusive system upon which to base a nomenclature.

10. Terminology can be defined to avoid the use of a term for more than one basic device and to avoid multiple definitions of terms by basing definitions upon an approach-departure classification of nonharmonic devices.

A consensus of music theorists regarding nonharmonic tones is needed to establish a systematic nomenclature. Consensus might best be achieved through the offices of professional organizations concerned with music education, such as the Music Educators' National Conference, and the Music Teachers' National Association. The author offers this proposal for classification and terminology of nonharmonic tones for the consideration of music theorists and teachers of music theory.

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APPENDIX II

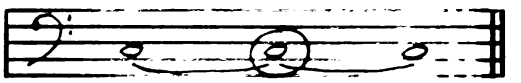
CLASSIFYING TERMINOLOGY FOR THE NINE BASIC NONHARMONIC DEVICES

Each of the nine basic devices is given a number of names by theorists, with distinctions in terminology often based upon details of usage in a specific musical context. More than one term sometimes is used for the same nonharmonic device in a given textbook. Some theorists apply the same term to more than one device, and to tones which are consonant as well as to those which are dissonant. Terminology variants for each device are based upon one or more of the following considerations, according to whether the dissonant tone

1. is accented or unaccented
2. is approached upward or downward
3. is resolved upward or downward
4. is tied or not tied
5. appears as a note value which is metrical (having a duration of the metrical unit or larger) or submetrical (having a duration of less than the metrical unit)
6. is resolved immediately or with a delayed resolution
7. is resolved directly in the same voice or indirectly in another voice
8. appears with the same chord as the chord of approach or with a different chord
9. appears with the same chord as the chord of resolution or with a different chord
10. appears in the bass or in an upper voice
11. is used in a slow tempo or in a fast tempo.

The terms given in the following tabulations are those which are found as general classifying terms for each basic device. The numbers correspond to the numbered entries of the Select Bibliography presented in Appendix I. The absence of a bibliography reference number indicates that the device was not identified with a specific name by the author of the textbook.

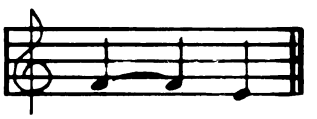
1. Approached by Prolongation and Left by Prolongation.



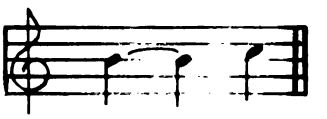
1. Pedal Point
2. Pedal
3. Pedal Point; Organ Point
4. Pedal Note
5. Organ Point; Sustained Note
6. Pedal Note
7. Pedal Note
8. Organ Point
9. Pedal Point
11. Pedal
12. Pedal
13. Pedal Point
14. Pedal Point
15. Organ Point
16. Pedal
17. Organ Point
18. Pedal Note
19. Pedal
20. Pedal Point
21. Pedal
22. Organ Point
23. Pedal Point
24. Pedal Point
25. Organ Point
26. Organ Point
27. Organ Point; Stationary Tone
28. Pedal Point
29. Pedal Point
30. Pedal Point
31. Organ Point
32. Organ Point

2. Approached by Prolongation and Left by Step.

(a)



(b)



1. Suspension
2. Suspension; Retardation
3. Suspension; Inverted Suspension
4. Suspension
5. Suspension; Appoggiatura
6. Suspension
7. Suspension
8. Suspension
9. Suspension; Retardation
10. Suspension
11. Suspension
12. Suspension
13. Suspension
14. Suspension
15. Suspension
16. Suspension
17. Suspension; Retardation
18. Suspension; Retardation
19. Suspension
20. Suspension; Retardation
21. Suspension
22. Suspension
23. Suspension
24. Suspension
25. Suspension
26. Suspension
27. Suspension
28. Suspension
29. Suspension
30. Suspension
31. Suspension
32. Suspension

3. Approached by Prolongation and Left by Skip.

C: IV I

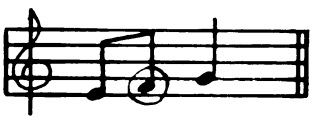
1. Free Bytone
2. Driving Note
4. Suspension
6. Suspension
7. Incomplete Suspension
9. Ornamental Suspension
11. Suspension; Preparation
12. Syncopation
15. Suspension
16. Delayed Tone
17. Free Nonharmonic Tone
18. Syncopation
22. Changing Note
23. Changing Note
25. Unresolved Suspension
26. Suspension
29. Suspended Tone
31. Unessential Tone

4. Approached by Step and Left by Prolongation.

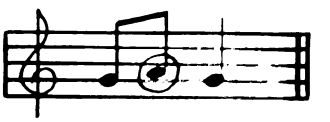
C: IV --- V

1. Anticipation
2. Anticipation
3. Anticipation
5. Anticipation
6. Anticipation
7. Anticipation
8. Anticipation
9. Anticipation
10. Anticipation
11. Driving Note; Preparation
12. Anticipation
13. Anticipation
14. Anticipation
15. Direct Anticipation
16. Anticipation
17. Anticipation
18. Anticipation
19. Anticipation
20. Anticipation
21. Anticipation
22. Anticipation
23. Anticipation
24. Anticipation
25. Anticipation
27. Anticipation
28. Anticipation
29. Anticipation
30. Anticipation
31. Anticipation
32. Anticipation

5. Approached by Step and Left by Step.

(a) 

C: I

(b) 

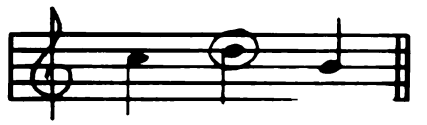
C: I

(a) The term passing tone is applied to the first pattern (a) in all of the textbooks listed in the Select Bibliography. Some theorists use the term appoggiatura for this device when the dissonant tone is accented.

(b) A variety of terms is found for the second form (b) of this basic melodic device.

1. Auxiliary
2. Auxiliary Note
3. Embellishment
4. Passing Note
5. Changing Note
6. Auxiliary Tone
7. Auxiliary Note
8. Neighboring Note
9. Embellishment
10. Changing Tone
11. Passing Note
12. Auxiliary Note
13. Neighboring Tone
14. Neighboring Tone
15. Neighboring Tone
16. Auxiliary
17. Appoggiatura
18. Auxiliary Note
19. Changing Note
20. Neighboring Tone
21. Auxiliary Tone
22. Auxiliary Note
23. Neighboring Tone
24. Neighboring Tone
25. Auxiliary Note
26. Embellishing Note
27. Neighboring Tone
28. Changing Note
29. Auxiliary Tone
30. Neighboring Tone
31. Auxiliary Tone
32. Neighboring Tone

6. Approached by Step and Left by Skip.



C: I V

1. Free Anticipation
2. Auxiliary Note
3. Changing Tone; Irregular Anticipation
4. Passing Note
6. Changing Tone
7. Auxiliary Note
8. Irregular Anticipation
9. Free Anticipation
10. Neighboring Tone
11. Passing Note
12. Auxiliary Note
13. Échappée
14. Escape Tone
15. Indirect Anticipation
16. Melodic Decoration
17. Échappée
18. Échappée
19. Anticipation; Passing Note
20. Escaped Tone
21. Échappée
22. Changing Note
23. Escape Tone
24. Escape Tone
25. Changing Note
26. Auxiliary Note
27. Adorning Tone
28. Anticipation
29. Auxiliary Tone
30. Free Neighboring Tone
31. Auxiliary Tone

7. Approached by Skip and Left by Prolongation.

C: IV I

1. Anticipation
2. Anticipation
3. Anticipation
4. Passing Note
5. Skip Note; Anticipation
6. Anticipation
7. Anticipation
8. Anticipation
9. Anticipation
10. Anticipation
11. Driving Note
12. Anticipation
13. Anticipation
15. Anticipation
16. Auxiliary Note
17. Anticipation
18. Free Anticipation
19. Anticipation
21. Anticipation
22. Anticipation
23. Anticipation
24. Anticipation
25. Anticipation
26. Unprepared Suspension
27. Anticipation
28. Anticipation
29. Anticipation
30. Free Anticipation
31. Anticipation
32. Anticipation

8. Approached by Skip and Left by Step.

C: I

1. Appoggiatura
2. Appoggiatura
3. Appoggiatura
4. Appoggiatura
5. Skip Note; Appoggiatura
6. Appoggiatura
7. Incomplete Auxiliary Note; Appoggiatura
8. Unprepared Suspension
9. Appoggiatura
10. Neighboring Tone
11. Appoggiatura
12. Appoggiatura
13. Appoggiatura
14. Appoggiatura
15. Indirect Suspension; Incomplete Neighbor
16. Subsidiary Note
17. Appoggiatura; Acciaccatura
18. Free Anticipation
19. Appoggiatura
20. Appoggiatura
21. Appoggiatura; Cambiata
22. Auxiliary Note; Unessential Discord
23. Appoggiatura
24. Appoggiatura
25. Changing Note
26. Auxiliary Note
27. Neighboring Tone
28. Suspension
29. Auxiliary Tone
30. Appoggiatura
31. Changing Tone; Appoggiatura
32. Appoggiatura

9. Approached by Skip and Left by Skip.

C: I

1. Free Tone
2. Unessential Note
3. Embellishing Tone; Irregular Anticipation
4. Passing Note
5. Changing-note
6. Melodic Figuration
7. Incomplete Arpeggiation
8. Irregular Anticipation
9. Free Tone
10. Free Tone
11. Passing Tone
13. Unprepared Neighboring Tone
15. Incomplete Figuration
16. Melodic Decoration
17. Free Nonharmonic Tone
18. Free Anticipation
19. Passing Note
22. Changing Note
23. Chordal Figuration
24. Free Tone
25. Free Changing Note
26. Free Melodic Figuration
27. Neighboring Tone
28. Elliptic Anticipation
29. Auxiliary Tone
30. Free Neighboring Tone
31. Changing Tone

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