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MODERN HARMONY

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MODERN HARMONY

ITS EXPLANATION AND APPLICATION

BY

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Mus.Doc. (OXON.)



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The relation of quantities is the principle of all things.

PLATO.

PREFATORY NOTE

THE present work is intended, not to supplant, but to supplement the existing harmony books. Whilst Ouseley, Stainer, Prout, Jadassohn and Riemann theorized right up to the art of their day, the harmony books written since then have avowedly been founded largely on their predecessors. During the last fifteen years immense developments in the tonal art have taken place, and a formidable hiatus between musical theory and modern practice has been created. It is the aim of the present book to fill in this gulf as far as possible.

In order to make the book interesting to the general reader, as well as useful to the student, a Glossary of Technical Terms has been supplied for the convenience of the former, whilst the practical student may like to try his hand (and Muse) in the working out of some of the Exercises in Appendix I.

The musical examples have been drawn from as wide a field as possible, always from the view of the appropriateness of the illustration, and therefore they are not necessarily typical of any particular composer. In all cases where possible, the reader should play over these passages (or better still, have them played to him), and not be satisfied with hearing them mentally.

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MODERN HARMONY:

ITS EXPLANATION AND APPLICATION

CHAPTER I

INTRODUCTORY

THE swift current of modern musical art during the last ten or fifteen years seems at first glance to have ruthlessly swept away the whole of the theories of the past. The earnest student may well be excused if he is bewildered completely on rising up fresh from his theoretical treatises to plunge into the music of actual life—of the twentieth-century opera-houses, concert-halls, and music-rooms. The sincere mind can hardly be satisfied by the offhand opinions of hide-bound time-servers, who curtly dismiss these modern composers with a deprecatory wave of the hand!

The whole of musical history—the initial rejection and later triumph of Monteverde and Gluck, of Bach and Beethoven, Wagner and Strauss—warns one against the too easy acceptance of the neatly turned epithets of persons who are too indolent to understand, or too indifferent to appreciate, a new kind of music which claims at once wide sympathies and considerable powers of concentration. Music which causes people to “hiss” and “boo” must contain at any rate some vitality, and is preferable consequently to that which speedily reduces the audience to a somnolent passivity.

Even on short acquaintance these modern musicians have too much method in their so-called “modernity” to be dismissed thus cursorily. *Ex nihilo nihil*, and the more deeply our interest is roused, the more we feel convinced that the methods of the leaders of these many modern styles—or

schools, or whatever we please to call them—are well founded on the rock-bed principles from which all the many secondary laws of art are drawn.

It is the greatest possible mistake to view these modern schools as things separate from the art of the past. Indeed, most of the new traits are legitimate growths out of the art technique of the acknowledged great masters.* Moreover, it does seem as if there were nothing new under the sun. Just as the principles of the twentieth-century "Cubism" in painting were well known some 400 years ago, so the modern methods of part-writing and chord-building all find their prototypes time after time in the pages of the great masters of the past.

Debussy's sequences of sevenths are but a reverberation of the practice of Guillaume de Machault in the fourteenth century.

Ex. 1. from a Sacred Madrigal
by MACHAULT.

Striking examples of tonal chords may be found in Purcell (1658-1695), and twelve-note-scale wrestlings in the Elizabethan pieces for the "virginals" by John Bull.

Ex. 2. PURCELL, "King Arthur."

(Chorus) tho' quiver - ing with cold we chat - ter

* I have carefully refrained throughout this book from using the term "classical," as commonly applied to Palestrina, Bach, Beethoven, and all the other great ones, as, with the late Mr. Coleridge-Taylor, I deem it unfair to the composers of the present age. In a comparatively new art like music, future generations may well call Parry, Stanford, Mackenzie, Elgar, Debussy, Schönberg and others, "classical."

fourths favoured by Debussy, Schönberg and Ravel, in Scriabine's chord of two unequal fourths, and in Strauss's "tonal" combinations.

Ex. 5. ($\text{♩} = 80$) BEETHOVEN, Pf. Sonata 27. Op. 90.

Although considerable weight must be laid on the close connection of the present art with that of the past, yet we must approach the newer harmonic tendencies with an absolutely open mind. So rapid and numerous have been the recent developments that barriers have been broken down in all directions, whilst on the other hand an almost completely new musical language has been invented. We must avoid the predicament of the people described by Mr. H. G. Wells as so much engaged in gazing towards the past that they walk into the future backwards. Art must ever be in a fluid state if it is to live, and whilst profiting by the experience of the past, we must ever be watchful of its course in the future.

An Open Mind.

So much harmony teaching is founded on mere book formalities that there is little, if any appeal to the evidence of the aural intelligence—the real arbiter in all matters of musical taste. It is the *empirical* method which makes the theory of the music of the later composers so difficult, and we cannot suppose that all of the explanations set down herein were present in the composers' minds at the time of conception, or that they may even be acceptable always to the composers themselves. The system of teaching harmony by attaching names to the chords often produces an altogether false way of regarding music. No chord in itself conveys any meaning whatsoever. It can give a vague impression (see Chapter X.), but thought in music can only be transmitted by chordal succession and forward movement, and the

chord, however wonderfully arranged, has value only in this light.

Impatience with set rules has always been a strong trait with composers, from the time of Mozart's travesty of a fugue in his "Ein Musikalischer Spass" to Wagner's caricature of Beckmesser; from Mendelssohn's rejection of a root to the first chord of the "Wedding March" to the clever satire in Strauss's tone poem, "Also sprach Zarathustra," and his opera, "Ariadne in Naxos." Bach wrote his consecutive fifths in the D minor organ Toccata because he liked them, and theory must consequently adapt itself to explain them. Schubert, Beethoven, and Dvořák loved to dally between the close relations of the major key and its tonic minor, and yet people are worrying still about a minor key related only by

the merest accident of key-signature. The many **Inade-**
quacies of inadequacies of our system of notation are respon-
Notation. sible for much miscomprehension, and composers must not be blamed for using our rather clumsy notational method in unconventional ways. The "twelve-note" and the "tonal" scales strain the system almost to breaking-point, and it is curious to find people asserting that therefore the notation is all right and the music all wrong. How much of composers' messages has been lost in such a cumbersome and unscientific transmission will never be known.

The four widest divergencies from the old practices found in modern music are :—

- (a) Other systems of chord-building than that founded on the superposition of unequal thirds (see Chapter VIII.).
- (b) The "twelve-note" scale as the basis of harmony and melody. This must be distinguished from the "chromatic" scale (see Chapter IV.).
- (c) The "tonal" scale with its equal steps (see Chapter V.).
- (d) The greater musical intelligence constantly demanded from the hearer by altered and added notes in chords (Chapter VII.), and by the growing practice of the elision of all unnecessary steps and chords (see Chapter IX.).

To a large extent the literal definition of "language" as a means of making oneself understood may be accepted in

music. The perception of sincerity and obvious purpose and design will readily atone for much in the way of less regular sequences, persistence in uncustomary procedures, waving aside of preparations, etc. "The spirit rather than the letter," and "Broad principles before the secondary laws founded on them," seem to be the watchwords of the musical Progressivists. Style and finish are but as the sheath which covers the sword, and there are times when the weapon has to be carried unsheathed.

No one would demur at the special effects of the fifths in the following:—

Ex. 6. *Tempo giusto.* DVOŘÁK, Waltz in D \flat .

The musical score for Ex. 6 is a piano accompaniment for a waltz by Dvořák. It is written in 3/4 time and D-flat major. The first system features a treble clef with a melody of eighth notes and a bass clef with a simple harmonic accompaniment. The second system continues the same material. Dynamics include *pp* and *dim.* The key signature has two flats (B-flat and E-flat).

The greater elasticity of technique in this and other directions is the natural outlet for the composer from the trite, obvious, and commonplace to a wider and more forceful expression. The listener must indeed be dull who cannot distinguish between such masterly freedoms and the uncouth clumsinesses of the "prentice hand." The wise wonder at the usual, whilst the unwise wonder at the unusual. It is only natural that artists should drop the idioms of the great masters as soon as they have become vulgarized by much repetition and base imitation, and in consequence use newer methods of chord-building, progression, and resolution in seeking self-expression.

Let not the student misunderstand the purpose of this book. A composer must always be sincere, and must use the

speech natural to him, and which can be understood by the people to whom he addresses himself. The Exercises at the end of this book are not intended to indicate that he should write in this or that style, but in order that he shall be able to adopt a newer technique if he wishes to do so, and, more important still, that by a closer knowledge of the newer technique, much of the mystery of the language shall be dispelled, by which means alone the real value of the musical thought may appear.

* * * * *

The modern practice will be seen to have its roots embedded in the older systems, just as the English language has its foundations in the Latin tongue. An Early Victorian rule of etiquette forbade the quoting of Latin without "apologizing and translating to the ladies." *Will the playing of diatonic music come to need a similar apologia?*

CHAPTER II

GREATER FREEDOM ON THE OLD LINES

IN this age, when everything is thrown into the crucible and tested, it is only natural that composers should show an increasing desire to break through many of the rules hitherto almost universally respected. One cannot doubt that there is some deeply lying principle under the many exceptions of the rule forbidding parallel fifths and octaves. The fact that the

idea of part-writing ceases to exist when two or more parts run in consecutive fifths hardly seems to hold good, as this depends entirely on the distribution of parts and on the spacing—very largely also on questions of accent, and considerably on the style of the rest of the harmony. The punctuation and phrasing accounts for the consecutive fifths in the following example by Schumann, whilst the cadential effect destroys the feeling of consecutives between (a) and (c), and the similar motion to the fifth from (b) to (c) in the Somervell song:—

Ex. 7. SCHUMANN, "Faschingsschwank,"
Finale, Op. 26.

The musical score for Ex. 7 is presented in two systems. The first system shows a treble clef with a melodic line and a bass clef with a bass line. The second system continues the piece with similar notation. The music features various intervals and phrasing, including instances of consecutive fifths as discussed in the text.

Ex.8.

Ardante.

A. SOMERVELL,
"Shepherd's Cradle Song"

(Voice)

(Pf.)

a) b) c)

Moreover, certain fifths seem to have very special qualities, and the following passages are worthy of study in this direction. The Chopin fifths (Example 11) are both in *major* chords. One of the MacDowell fifths is in a *minor* chord, whilst the Grieg consecutives occur in discords. The use of consecutive fifths in the Chopin Mazurka in C (see p. 118) too is very instructive.

Ex.9.

Andante espressivo.

GRIEG, Ballade in G minor.

p

etc.

*

*

*

*

Ex.10.

Semplice.

MAC-DOWELL,
At an old Trysting Place, Op.51.

(Pf.)

*

*

*

*

Ex. 11. *Meno mosso.* CHOPIN, Polonaise.

mp *dim.*

* * * *

The alteration of major and minor thirds in passages like the Karg-Elert extract produces an altogether different effect from the consecutive minor common chords in the Sibelius song, and also from the open octaves and fifths in Example 14.

Ex. 12. *Lento.* KARG-ELERT, "Näher mein Gott"

pp *ppp*

Sw. Salicional

Ex. 13. *Largamente.* SIBELIUS, "Black Roses."

Sor. row brings the night-black ro - ses

(Pr.) *ff*

Ex.14. GROVLEZ, "Petites Litanies"
from "L'Almanach aux Images?"
una corda

mf cresc. *ff* *pp subito*

Certain so-called "horn-fifths" have always been regarded as free from the "similar motion" prohibition.*

Ex.15. BEETHOVEN,
"Les Adieux" Sonata.
"I.e - be - wohl"

The use or avoidance of "hidden fifths" in the extreme parts is largely a matter of whether accent is desirable or otherwise. The following simple piece of string-writing by Haydn ignores no less than seven of the textbook rules, and the Bach passages are equally interesting. In Example 17, ordinary rules of part-writing are ignored at all the points, *a*, *b*, *c*, *d*, *e*, and *f*, whilst the chord in the first bar of Example 18 looks very like a pet combination of Schönberg.

Ex.16. HAYDN, Emperor's Hymn,
from String Quartet.

mf *etc.*

* Fifths by similar motion, called by some theorists "exposed fifths," are forbidden in the older practice.

Ex. 17.

Tempo giusto.

BACH, Choral:

"Ich hab' mein' Sach' Gott heimgestellt."

(Voices)

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

Ex. 18.

Allegro moderato.

BACH, Choral-Prelude:

"Christ ist erstanden."

(Org.) etc.

Ex. 19. Adagio.

BACH, Magnificat

Men - te cor - dis su - - i.

(Voices)

*

Second inversions may be found on every degree of the scale in the works of the old masters, and Bach himself seems to delight in consecutive "six-fours," and to enjoy the fourths with the bass. Example 20 is from an early Prelude, whilst the Chorale in Example 21 was his very last musical breath, as it were, for it was written on his death-bed.

Ex. 20.

J. S. BACH, Prelude in G.

(Org.) etc.

Ex. 21.

J. S. BACH, Choral Prelude
 "Wenn wir in höchsten Nöten sein."

Side by side with the freer treatment of the notes of the diatonic scale comes a freer and often transferred resolution of discords. In Example 22 the B in the treble resolves on the A in the tenor. In the Beethoven Sonata, the seventh in the bass skips to tonic; in the Parry example, the bass note of the augmented sixth flies similarly to the Tonic, whilst in the beautiful Bridge anthem, the seventh in the bass does likewise. But this latter may be a case of Elision, a subject treated fully in Chapter IX.

Ex. 22.

Andantino. COLERIDGE-TAYLOR,
 "A Tale of old Japan."

Why she wept said Fen - ko

Ex. 23.

Allegro con brio.

BEETHOVEN, "Waldstein" Sonata, Op. 53.

(Pf.) (Scheme)

Ex. 24.

Vivacissimo.

PARRY, Symphony in B minor.

Ex. 25.

Lento.

J. F. BRIDGE,
"Crossing the Bar."

The doubled sevenths in Beethoven's Twelfth String Quartet (always one passing away before the other resolves), the doubled Leading-note in MacDowell's Second Piano-forte Etude and in Stravinsky's C minor Etude, the freer passing-notes in Schumann's Pianoforte Concerto, the melodic augmented fourths in Reger's Choral Vorspiel and in a well-known chant by Goss, all fulfil their purpose and indicate a wider application of artistic principles.

Freer
Progressions.

Ex. 26.

REGER,
"Gott des Himmels und der Erden."

Leise bewegt.

Ex. 27.

JOHN GOSS.

Ex. 28.

Allegretto ben moderato.

CÉSAR FRANCK,
Violin Sonata.

A more equal treatment of the scale notes allows *both* a major and a minor common chord on every note without necessitating modulation or upsetting the feeling of tonality. From this point it is but a short step to common chords on the chromatic notes of the scale, and an infinite widening of the modulation scheme. Apart from the rule of key-balance in the older sonata and fugue forms, a modulation to the Supertonic major key for transitional purposes seems as good to the ear as any other.*

In addition to all this, any discord which first suggests itself as belonging to any other key can be brought within the tonal range of the central Tonic by suitable progression of the parts, and may thus acquire a new and vital character. The finest applications of this "polychromatic" method are to be found in the works of Wagner, and at times in Strauss. Any chromatic discord may be taken on any note of the scale, provided—

- (a) it is so followed as to effect no radical disturbance of the tonal centre; or,
 (b) that it effects the desired modulation with a natural progression of the parts.

This principle will be seen more widely developed in Chapter IV. on the duodecuple (or twelve-note) scale.

In view of these newer chords, it seems idle to call such a chord as the one in the Pitt example, for instance, a "dominant thirteenth, with B flat as root"; it is simply a chord of the seventh on the Subdominant with a chromatically altered third. The Elgar example shows a major common chord with a seventh on the Leading-note; the Jensen, a minor seventh chord with major third on the Subdominant, whilst the Strauss extract gives a major chord on the raised Subdominant. It would be easy to

* See Reger, "Supplement to the Theory of Modulation."

multiply examples. It is interesting to find Dr. Vaughan Williams and Dr. Walford Davies using the same chord with such a very different effect.

Ex. 29. *Andante.* PERCY PITT, "Come Solemn Night."
pp
 Come so - lemn night
rall.

Ex. 30. *Andante.* ELGAR, "Apostles."
pp

Ex. 31. JENSEN, "Rest comes at eve," Op. 28, No. 6.
 dream - ing kiss'd by the night,
 (Voices) *p* etc.
 Dream - ing kiss'd by the night..... kiss'd

Ex. 32. *Mässig langsam.* STRAUSS, Ein Heldenleben.
 (Orch.) *p pp*

Ex.33. WALFORD-DAVIES,
"Everyman"

Lento espressivo.

(Orch.) *pp*

Ex. 34. VAUGHAN-WILLIAMS, "A Sea Symphony"

(Orch.) *ff* (Chor.) Be - hold the sea it - self.

Ex.35. Scherzoso. (♩ = 128) SCRIABINE, Prélude, Op.35, №3.

f

Ex.36. Largo. DVOŘÁK, "New World" Symphony.

(Orch.) *p*

Rr

Ex. 37.

WAGNER, "Die Walküre."

Lento.

Ex. 38.

Lento.

ELGAR, "Apostles."

(Scheme)

Major triad on every note

The unnecessarily forbidden appearance of the root in the inversions of the chord of the ninth tends to cramp part-writing, and the prohibition robs diatonic music of some of its most powerful effects. The root which merely requires judicious placing and arrangement may appear above the minor or major ninth with great effect. A wide selection of resolutions should be allowed. For instance:—

- (a) Both the major and minor ninth may fall a tone or semitone.

(b) The ninth may remain.

(c) The ninth may rise a chromatic semitone.

The case of (b) will be clearer still when the ninth is prepared, thus appearing as a pedal note. In all cases, so long as the ninth is satisfactorily resolved, the other notes are comparatively free.

Ex.39.

With sentiment.

MAC-DOWELL.

"Thy beaming eyes."

Musical score for Ex. 39, MacDowell's "Thy beaming eyes." The score is in 4/4 time with a key signature of one flat (B-flat). The vocal line (treble clef) has the lyrics: "Thy beaming eyes are Par - a - dise". The piano accompaniment (grand staff) includes dynamics (Pf.) and (mf). A handwritten note "df + acc b" is written to the right of the piano part. An asterisk (*) is placed below the piano part at the end of the phrase.

Ex.40.

VERDI, Requiem.

Musical score for Ex. 40, Verdi's Requiem. The score is in 4/4 time with a key signature of three sharps (F#, C#, G#). The vocal line (bass clef) has the lyrics: "Ge - re - cu - ram mel - i - fi - nis, Ge -". The piano accompaniment (grand staff) is labeled "(Orch.)". An asterisk (*) is placed below the piano part at the end of the phrase.

Ex.41.

Allegro con brio.

H. HARTY,
Mystic Trumpeter.

Musical score for Ex. 41, Harty's "Mystic Trumpeter." The score is in 2/4 time with a key signature of one flat (B-flat). The piano accompaniment (grand staff) is labeled "(Orch.)" and includes dynamics (sf) and (sf cresc.).

Ex. 42. A. HALM, "Harmonielehrebuch"

The banned progression of a second proceeding into a unison may be found in Schubert's canon in "Erlaf See," and the pedal chords in the cadences of Beethoven and Brahms are as revolutionary in effect as anything in Debussy.

Ex. 43. BEETHOVEN.
Largo e mesto.

See also the double chord from Beethoven's Ninth Symphony, given on p. 104.

Of all the wider applications of the "pedal" principle, the sustained "Mediant" is now almost as frequent as the Tonic and Dominant—perhaps more so. Numberless instances spring to mind—the finale to Elgar's First Symphony, Moussorgsky's "Song of Mephistopheles," Smetana's "Aus meinen Leben" String Quartet, Guilmant's Seventh Organ Sonata (second movement), Karg-Elert's Passacaglia in E flat minor (finale), Debussy's charming piano valse "La plus que lente," and so on. Dvořák and Poldini are very partial to it; Wolf-Ferrari also. The following has the effect of a double inverted pedal, the Tonic and Mediant:

Ex. 44. Andantino soave. KARG-ELERT, Pastel. Op. 92, N^o 3.
Sw *pp*

The same principle is seen in Example 45, although the B flat is explained more simply as an *appoggiatura*.

Ex. 45. RUBINSTEIN,
"Près les Ruisseaux."
Lento.

(Pf.) *pp*

Detailed description: This musical example shows a piano and bass staff in 4/4 time, marked 'Lento'. The key signature has one sharp (F#). The piano part features a melody with a B flat note (an appoggiatura) on the second measure. The bass part provides a simple harmonic accompaniment. Dynamic markings include '(Pf.)' and 'pp'.

Almost side by side with this increased freedom has come a sort of impatience with, and a growing disregard for the conventionalities of notation.

Ex. 46. Andante. E. M. SMYTH, "Chryssilla."
(Voice)

sobs,— and calm ly mine ear

hear - - - ens

Pf. *p* *cresc.*

Detailed description: This musical example features a voice line and piano accompaniment in 4/4 time, marked 'Andante'. The key signature has two flats (Bb, Eb). The voice part has lyrics: 'sobs,— and calm ly mine ear' and 'hear - - - ens'. The piano part includes dynamic markings: '(Pf.)', 'p', and 'cresc.'. The score shows a complex harmonic structure with various accidentals and a key change indicated by a double bar line and a new key signature.

Ex. 47.

Allegro espressivo.

REGER, String Quartet, Op.121.

Ex. 48.

Nicht zu rasch.

SCHÖNBERG, String Quartet, Op.7.

This signifies at any rate a complete acceptance of the equal temperamental tuning, a position most composers now recognize fully. Some theorists heavily punctuate the rule, "Study the pure scale and write in it." If this were applied to the whole of composition, modulation by enharmonic change would be a barbarous thing. M. Anselme Vinée, in his "System of Harmony," devotes much attention to the changing pitch of a given note according to the accompanying notes, but he also gives a large section of his work to the

beauties of "enharmony." How is one to reconcile the two views? Further, "We have come to the day," says a prominent essayist, "when the orchestra, and not the harpsichord or pianoforte, will be the basis of music; when a conglomeration of instruments, mostly of unfixed tone, will take the place in the mind of those of very fixed tone. The large proportion of instruments of unfixed tone in the orchestra enables all kinds of harmony effects to be brought off which sound harsh and disagreeable on the piano." Would Richard Strauss, with his wonderful enharmonic treatments, endorse this? Scriabine might in theory, but in *practice* he uses F sharp and G flat promiscuously.

Is music, then, condemned to be suspended ever between the two opposing temperaments, or will the "duodecuple" scale decide once for all in favour of the equal division of the octave in theory as well as in practice?

CHAPTER III

SCALES—(A) MODAL INFLUENCES

It is doubtful if there ever has been a really fixed, stable, and definite scale. That the art has been, and still is worked out over an oscillating threefold basis, of which the constituents are almost as diverse as the colours red, blue, and yellow, only adds to its ever-increasing charm and vitality. This threefold basis is—

- (a) The modal system.
- (b) The pure temperament.
- (c) The equal temperament.

We have already referred to the tendency of the great composers at times to modify the diatonic scales in the direction of some of the modes. The modal influence is as vital to-day as ever, but in a less pure and subtler way. The chromatic scale, in its turn, has constantly oscillated between a system of harmony founded on the pure temperament and one based on the equal tuning. With many modern composers the capitulation of the former to the latter is now entire, leaving a twelve-note system founded on a central Tonic.

It is important to remember that any scale is a pure convention, a thing which exists only in the imagination.

No one permanent Scale. “The system of scales, modes, and harmonic tissues does not rest solely upon unalterable natural laws, but is at least partly the result of æsthetic principles which have already changed, and will still further change with the progressive development of humanity” (Helmholtz, “The Sensation of Tone,” chap. xii.). The influence of the modes re-entered music as imperceptibly as the modes have been temporarily obliterated formerly by the more modern diatonic scales. The arbitrary use of the “Tierce de Picardie” chords, and such chords as that in the

Mackenzie example, which Max Reger calls the “Dorian Sixth,” were perhaps the first steps in this direction.

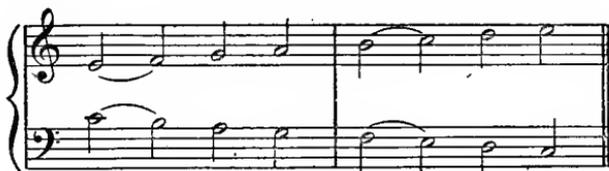
Ex. 49.

MACKENZIE, “The Bride.”



Amongst the many reasons which predisposed the modern French composers towards modal ideas was the view of the “relative” minor taken by their theorists, who hold that the following is a much more closely related minor to C major than A minor is:—

Ex. 50.



Taking Tartini’s downward origin of the minor common chord,* they have reason on their side, but a glance at the Example 51 will show that this scale is the old Phrygian mode.

The so-called “Tonics” and “Dominants” appertaining to the ancient Church use are here shown for the sake of completeness, although the modern composer is entirely unaffected by them. This indifference leaves the Æolian identical with the Hypo-Dorian, the Hypo-Mixolydian with the Dorian, the Hypo-Æolian with the Phrygian, whilst the Hypo-Lydian coincides with our major scale.

It will be readily understood how composers became more and more drawn to the mediæval modes, for here, instead of two scales in which to write, they have six, all differently constructed. Moreover, the whole field of transposition is

* Vincent D’Indy, “Cours de Composition Musicale,” I^e livre.

Ex. 51.

AUTHENTIC MODES.

Dorian.

Phrygian.

Lydian.

Mixolydian.

Æolian.

PLAGAL MODES.

Hypo-Dorian.

Hypo-Phrygian.

Hypo-Lydian.

Hypo-Mixolydian.

Hypo-Æolian.

equally applicable to them. appear, starting from C:

We give the new scales as they

Ex. 52.

Dorian.

Phrygian.

Lydian.

Hypo-Dorian.

Hypo-Phrygian.

Mixolydian.

There are three ways in which modal influence comes into modern music:—

- (a) The pure and exclusive use of the notes of the mode.
- (b) Purely modal melody, with modern harmonic texture.
- (c) The conveyance of a remote modal feeling in any way whatsoever.

Few composers, however, use them entirely in the pure

manner by drawing their harmonic exclusively from the notes of the scale. Beethoven employs the Lydian thus in the slow movement of the String Quartet in A minor (Op. 132), whilst amongst modern composers who have achieved this successfully may be mentioned Count Alexis Rébikoff, Joseph Bonnet, Maurice Ravel, and Otto Olsson. The latter has written an important set of nineteen variations on the Dorian plain-song, "Ave Stella Maris," which is played entirely on the white keys throughout.

The Pure Modal Use.

Ex.53.

BEETHOVEN,
String Quartet. Op.132.

Molto Adagio.

Ex.54.

RÉBIKOFF, "Idylle hellénique"

Andante sostenuto.

Ex.55.

ELGAR, "Dream of Gerontius"

Andantino.

Al - le - lu - ia, From earth to heaven.

pp (Str.)

dim. poco allarg.

dim. e rit.

Ex. 56. Allegretto.

J. BONNET, "Matin Provençal."

(Org.) *mp* etc.

Many of the Irish airs arranged by Stanford, and the Russian folk-songs collected by Rimsky-Korsakoff, afford splendid examples of what pure modal treatment should be. Ravel has also followed on the same lines with his Greek airs for voice and pianoforte.

Ex. 57. Allegretto.

RIMSKY-KORSAKOFF, Russian Songs, No 53.

(Voice) *pp* etc.

Other instances of the pure modal use occur in the device of "quotation," as in Harwood's Organ Sonata in C sharp minor, where the ancient song "Beata nobis gaudia" is given with the pure modal harmony; in his "Requiem," where the "Requiem Æternam" is quoted; whilst the "Dies Iræ" is used with sardonic and ironical purpose by Berlioz in his "Faust" and in the "Symphonie Fantastique," and for a psychological reason by Strauss in "Also sprach Zarathustra."

The instances in which a modal melody is treated with all the resources of the modern harmonic technique are multitudinous. With Bach's wonderful treatment of chorales the melody itself frequently comes from a period akin to the mode, whilst in such cases as the "Song of the King of Thule" in Gounod's "Faust," we

Melodic Use.

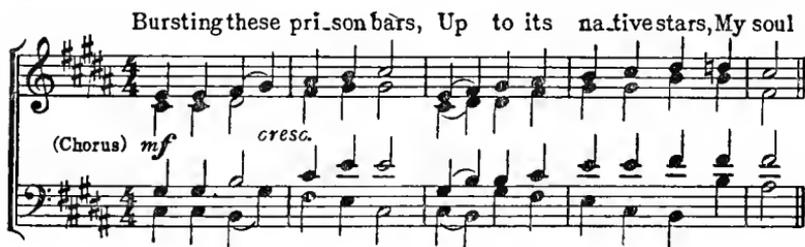
have a new and original melody founded on an old modal scale. The Pierné theme (Example 77) is interesting in this direction. It might be heard as the upper tetrachord of the Hypo-Phrygian mode, harmonized impressionistically.

The third method is more subtle—a matter of the spirit rather than of the letter. Sometimes the mere use of a succession of common chords in the root position will evoke this remote mediæval atmosphere; at other times it is merely a succession of a few exactly equal chords borrowed from the “duodecuple” system (see Chapter IV.). With the Tschaiakowsky extract it is merely the complete avoidance of the “A” which endues the passage with a certain awesome vagueness. Often it is something subtler still—the splendidly equipped modern temperament, with sympathetic gaze directed towards things mediæval, as in Walford Davies’ setting of the old morality play “Everyman.” The prominence given to the D sharp minor harmony in the Verdi extract gives it an unfamiliar feeling. The Ravel “Pavane,” although nominally in G, is permeated nevertheless by some subtle modal colouring. Mr. Felix Swinstead has caught the spirit very happily in the first of his Seven Preludes for the Pianoforte.

CHOPIN, Nocturne in G minor, Op.37.
Ex.58. Andante sostenuto.



RUTLAND BOUGHTON,
“The skeleton in armour.”
Ex.59.



Ex. 60.

Moderato.

ELGAR, "Gerontius"

(Chorus) *pp* A - - - men.

(Semi-Chor.) Noe from the waters in a saving home

Detailed description: This musical example shows two systems of vocal and piano music. The first system consists of two staves: a vocal line in the treble clef and a piano accompaniment line in the bass clef. The vocal line begins with a whole rest, followed by a melodic phrase starting on a half note 'A' and ending on a half note 'men'. The piano accompaniment provides harmonic support. The second system also has two staves, with the vocal line in the treble clef and piano accompaniment in the bass clef. The vocal line contains the lyrics '(Semi-Chor.) Noe from the waters in a saving home'. The piano accompaniment continues with a steady harmonic accompaniment.

Ex. 61. Andante cantabile.

TSCHAIKOWSKY,
5th Symphony, Op. 64.

(Vas, C. e B.) *p*

Detailed description: This musical example shows a single system of piano music in the bass clef. The tempo is marked 'Andante cantabile'. The music consists of a series of chords and dyads, primarily in the lower register, with a dynamic marking of *p* (piano). The notation includes various chord voicings and some melodic movement within the chords.

Ex. 62.

VERDI, "Otello."

Detailed description: This musical example shows a single system of piano music in G major, 2/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The music is characterized by a rhythmic pattern of eighth and sixteenth notes in the right hand, and a more melodic line in the left hand. There are two accents marked with a triangle symbol (Δ) over the notes.

Ex. 63.

M. RAVEL, "Pavane pour une Infante défunte."

Assez douce, mais d'une sonorité large.

(Pf.) *p*

Detailed description: This musical example shows a single system of piano music in G major, 3/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The tempo is marked 'Assez douce, mais d'une sonorité large'. The music features a prominent, flowing eighth-note melody in the right hand, with a more rhythmic accompaniment in the left hand. The dynamic marking is *p* (piano). The notation includes various chord voicings and melodic lines.

Other composers show the influence chiefly in their final Modal cadences. The close of "Saul's Dream" in Parry's Cadences. "King Saul," and the ending of Grieg's Pianoforte Concerto, afford instances of this.

Ex. 64. **E. GRIEG,**
Allegretto semplice. — Sigurd Jorsalfar, Suite. Op. 56.



Musical score for Ex. 64, showing piano and orchestra parts. The piano part is in treble clef and the orchestra part is in bass clef. The key signature has one sharp (F#) and the time signature is 3/4. The piano part begins with a half note G4, followed by quarter notes A4, B4, C5, D5, E5, F#5, G5, A5, B5, C6, D6, E6, F#6, G6, A6, B6, C7, D7, E7, F#7, G7, A7, B7, C8, D8, E8, F#8, G8, A8, B8, C9, D9, E9, F#9, G9, A9, B9, C10, D10, E10, F#10, G10, A10, B10, C11, D11, E11, F#11, G11, A11, B11, C12, D12, E12, F#12, G12, A12, B12, C13, D13, E13, F#13, G13, A13, B13, C14, D14, E14, F#14, G14, A14, B14, C15, D15, E15, F#15, G15, A15, B15, C16, D16, E16, F#16, G16, A16, B16, C17, D17, E17, F#17, G17, A17, B17, C18, D18, E18, F#18, G18, A18, B18, C19, D19, E19, F#19, G19, A19, B19, C20, D20, E20, F#20, G20, A20, B20, C21, D21, E21, F#21, G21, A21, B21, C22, D22, E22, F#22, G22, A22, B22, C23, D23, E23, F#23, G23, A23, B23, C24, D24, E24, F#24, G24, A24, B24, C25, D25, E25, F#25, G25, A25, B25, C26, D26, E26, F#26, G26, A26, B26, C27, D27, E27, F#27, G27, A27, B27, C28, D28, E28, F#28, G28, A28, B28, C29, D29, E29, F#29, G29, A29, B29, C30, D30, E30, F#30, G30, A30, B30, C31, D31, E31, F#31, G31, A31, B31, C32, D32, E32, F#32, G32, A32, B32, C33, D33, E33, F#33, G33, A33, B33, C34, D34, E34, F#34, G34, A34, B34, C35, D35, E35, F#35, G35, A35, B35, C36, D36, E36, F#36, G36, A36, B36, C37, D37, E37, F#37, G37, A37, B37, C38, D38, E38, F#38, G38, A38, B38, C39, D39, E39, F#39, G39, A39, B39, C40, D40, E40, F#40, G40, A40, B40, C41, D41, E41, F#41, G41, A41, B41, C42, D42, E42, F#42, G42, A42, B42, C43, D43, E43, F#43, G43, A43, B43, C44, D44, E44, F#44, G44, A44, B44, C45, D45, E45, F#45, G45, A45, B45, C46, D46, E46, F#46, G46, A46, B46, C47, D47, E47, F#47, G47, A47, B47, C48, D48, E48, F#48, G48, A48, B48, C49, D49, E49, F#49, G49, A49, B49, C50, D50, E50, F#50, G50, A50, B50, C51, D51, E51, F#51, G51, A51, B51, C52, D52, E52, F#52, G52, A52, B52, C53, D53, E53, F#53, G53, A53, B53, C54, D54, E54, F#54, G54, A54, B54, C55, D55, E55, F#55, G55, A55, B55, C56, D56, E56, F#56, G56, A56, B56, C57, D57, E57, F#57, G57, A57, B57, C58, D58, E58, F#58, G58, A58, B58, C59, D59, E59, F#59, G59, A59, B59, C60, D60, E60, F#60, G60, A60, B60, C61, D61, E61, F#61, G61, A61, B61, C62, D62, E62, F#62, G62, A62, B62, C63, D63, E63, F#63, G63, A63, B63, C64, D64, E64, F#64, G64, A64, B64, C65, D65, E65, F#65, G65, A65, B65, C66, D66, E66, F#66, G66, A66, B66, C67, D67, E67, F#67, G67, A67, B67, C68, D68, E68, F#68, G68, A68, B68, C69, D69, E69, F#69, G69, A69, B69, C70, D70, E70, F#70, G70, A70, B70, C71, D71, E71, F#71, G71, A71, B71, C72, D72, E72, F#72, G72, A72, B72, C73, D73, E73, F#73, G73, A73, B73, C74, D74, E74, F#74, G74, A74, B74, C75, D75, E75, F#75, G75, A75, B75, C76, D76, E76, F#76, G76, A76, B76, C77, D77, E77, F#77, G77, A77, B77, C78, D78, E78, F#78, G78, A78, B78, C79, D79, E79, F#79, G79, A79, B79, C80, D80, E80, F#80, G80, A80, B80, C81, D81, E81, F#81, G81, A81, B81, C82, D82, E82, F#82, G82, A82, B82, C83, D83, E83, F#83, G83, A83, B83, C84, D84, E84, F#84, G84, A84, B84, C85, D85, E85, F#85, G85, A85, B85, C86, D86, E86, F#86, G86, A86, B86, C87, D87, E87, F#87, G87, A87, B87, C88, D88, E88, F#88, G88, A88, B88, C89, D89, E89, F#89, G89, A89, B89, C90, D90, E90, F#90, G90, A90, B90, C91, D91, E91, F#91, G91, A91, B91, C92, D92, E92, F#92, G92, A92, B92, C93, D93, E93, F#93, G93, A93, B93, C94, D94, E94, F#94, G94, A94, B94, C95, D95, E95, F#95, G95, A95, B95, C96, D96, E96, F#96, G96, A96, B96, C97, D97, E97, F#97, G97, A97, B97, C98, D98, E98, F#98, G98, A98, B98, C99, D99, E99, F#99, G99, A99, B99, C100, D100, E100, F#100, G100, A100, B100, C101, D101, E101, F#101, G101, A101, B101, C102, D102, E102, F#102, G102, A102, B102, C103, D103, E103, F#103, G103, A103, B103, C104, D104, E104, F#104, G104, A104, B104, C105, D105, E105, F#105, G105, A105, B105, C106, D106, E106, F#106, G106, A106, B106, C107, D107, E107, F#107, G107, A107, B107, C108, D108, E108, F#108, G108, A108, B108, C109, D109, E109, F#109, G109, A109, B109, C110, D110, E110, F#110, G110, A110, B110, C111, D111, E111, F#111, G111, A111, B111, C112, D112, E112, F#112, G112, A112, B112, C113, D113, E113, F#113, G113, A113, B113, C114, D114, E114, F#114, G114, A114, B114, C115, D115, E115, F#115, G115, A115, B115, C116, D116, E116, F#116, G116, A116, B116, C117, D117, E117, F#117, G117, A117, B117, C118, D118, E118, F#118, G118, A118, B118, C119, D119, E119, F#119, G119, A119, B119, C120, D120, E120, F#120, G120, A120, B120, C121, D121, E121, F#121, G121, A121, B121, C122, D122, E122, F#122, G122, A122, B122, C123, D123, E123, F#123, G123, A123, B123, C124, D124, E124, F#124, G124, A124, B124, C125, D125, E125, F#125, G125, A125, B125, C126, D126, E126, F#126, G126, A126, B126, C127, D127, E127, F#127, G127, A127, B127, C128, D128, E128, F#128, G128, A128, B128, C129, D129, E129, F#129, G129, A129, B129, C130, D130, E130, F#130, G130, A130, B130, C131, D131, E131, F#131, G131, A131, B131, C132, D132, E132, F#132, G132, A132, B132, C133, D133, E133, F#133, G133, A133, B133, C134, D134, E134, F#134, G134, A134, B134, C135, D135, E135, F#135, G135, A135, B135, C136, D136, E136, F#136, G136, A136, B136, C137, D137, E137, F#137, G137, A137, B137, C138, D138, E138, F#138, G138, A138, B138, C139, D139, E139, F#139, G139, A139, B139, C140, D140, E140, F#140, G140, A140, B140, C141, D141, E141, F#141, G141, A141, B141, C142, D142, E142, F#142, G142, A142, B142, C143, D143, E143, F#143, G143, A143, B143, C144, D144, E144, F#144, G144, A144, B144, C145, D145, E145, F#145, G145, A145, B145, C146, D146, E146, F#146, G146, A146, B146, C147, D147, E147, F#147, G147, A147, B147, C148, D148, E148, F#148, G148, A148, B148, C149, D149, E149, F#149, G149, A149, B149, C150, D150, E150, F#150, G150, A150, B150, C151, D151, E151, F#151, G151, A151, B151, C152, D152, E152, F#152, G152, A152, B152, C153, D153, E153, F#153, G153, A153, B153, C154, D154, E154, F#154, G154, A154, B154, C155, D155, E155, F#155, G155, A155, B155, C156, D156, E156, F#156, G156, A156, B156, C157, D157, E157, F#157, G157, A157, B157, C158, D158, E158, F#158, G158, A158, B158, C159, D159, E159, F#159, G159, A159, B159, C160, D160, E160, F#160, G160, A160, B160, C161, D161, E161, F#161, G161, A161, B161, C162, D162, E162, F#162, G162, A162, B162, C163, D163, E163, F#163, G163, A163, B163, C164, D164, E164, F#164, G164, A164, B164, C165, D165, E165, F#165, G165, A165, B165, C166, D166, E166, F#166, G166, A166, B166, C167, D167, E167, F#167, G167, A167, B167, C168, D168, E168, F#168, G168, A168, B168, C169, D169, E169, F#169, G169, A169, B169, C170, D170, E170, F#170, G170, A170, B170, C171, D171, E171, F#171, G171, A171, B171, C172, D172, E172, F#172, G172, A172, B172, C173, D173, E173, F#173, G173, A173, B173, C174, D174, E174, F#174, G174, A174, B174, C175, D175, E175, F#175, G175, A175, B175, C176, D176, E176, F#176, G176, A176, B176, C177, D177, E177, F#177, G177, A177, B177, C178, D178, E178, F#178, G178, A178, B178, C179, D179, E179, F#179, G179, A179, B179, C180, D180, E180, F#180, G180, A180, B180, C181, D181, E181, F#181, G181, A181, B181, C182, D182, E182, F#182, G182, A182, B182, C183, D183, E183, F#183, G183, A183, B183, C184, D184, E184, F#184, G184, A184, B184, C185, D185, E185, F#185, G185, A185, B185, C186, D186, E186, F#186, G186, A186, B186, C187, D187, E187, F#187, G187, A187, B187, C188, D188, E188, F#188, G188, A188, B188, C189, D189, E189, F#189, G189, A189, B189, C190, D190, E190, F#190, G190, A190, B190, C191, D191, E191, F#191, G191, A191, B191, C192, D192, E192, F#192, G192, A192, B192, C193, D193, E193, F#193, G193, A193, B193, C194, D194, E194, F#194, G194, A194, B194, C195, D195, E195, F#195, G195, A195, B195, C196, D196, E196, F#196, G196, A196, B196, C197, D197, E197, F#197, G197, A197, B197, C198, D198, E198, F#198, G198, A198, B198, C199, D199, E199, F#199, G199, A199, B199, C200, D200, E200, F#200, G200, A200, B200, C201, D201, E201, F#201, G201, A201, B201, C202, D202, E202, F#202, G202, A202, B202, C203, D203, E203, F#203, G203, A203, B203, C204, D204, E204, F#204, G204, A204, B204, C205, D205, E205, F#205, G205, A205, B205, C206, D206, E206, F#206, G206, A206, B206, C207, D207, E207, F#207, G207, A207, B207, C208, D208, E208, F#208, G208, A208, B208, C209, D209, E209, F#209, G209, A209, B209, C210, D210, E210, F#210, G210, A210, B210, C211, D211, E211, F#211, G211, A211, B211, C212, D212, E212, F#212, G212, A212, B212, C213, D213, E213, F#213, G213, A213, B213, C214, D214, E214, F#214, G214, A214, B214, C215, D215, E215, F#215, G215, A215, B215, C216, D216, E216, F#216, G216, A216, B216, C217, D217, E217, F#217, G217, A217, B217, C218, D218, E218, F#218, G218, A218, B218, C219, D219, E219, F#219, G219, A219, B219, C220, D220, E220, F#220, G220, A220, B220, C221, D221, E221, F#221, G221, A221, B221, C222, D222, E222, F#222, G222, A222, B222, C223, D223, E223, F#223, G223, A223, B223, C224, D224, E224, F#224, G224, A224, B224, C225, D225, E225, F#225, G225, A225, B225, C226, D226, E226, F#226, G226, A226, B226, C227, D227, E227, F#227, G227, A227, B227, C228, D228, E228, F#228, G228, A228, B228, C229, D229, E229, F#229, G229, A229, B229, C230, D230, E230, F#230, G230, A230, B230, C231, D231, E231, F#231, G231, A231, B231, C232, D232, E232, F#232, G232, A232, B232, C233, D233, E233, F#233, G233, A233, B233, C234, D234, E234, F#234, G234, A234, B234, C235, D235, E235, F#235, G235, A235, B235, C236, D236, E236, F#236, G236, A236, B236, C237, D237, E237, F#237, G237, A237, B237, C238, D238, E238, F#238, G238, A238, B238, C239, D239, E239, F#239, G239, A239, B239, C240, D240, E240, F#240, G240, A240, B240, C241, D241, E241, F#241, G241, A241, B241, C242, D242, E242, F#242, G242, A242, B242, C243, D243, E243, F#243, G243, A243, B243, C244, D244, E244, F#244, G244, A244, B244, C245, D245, E245, F#245, G245, A245, B245, C246, D246, E246, F#246, G246, A246, B246, C247, D247, E247, F#247, G247, A247, B247, C248, D248, E248, F#248, G248, A248, B248, C249, D249, E249, F#249, G249, A249, B249, C250, D250, E250, F#250, G250, A250, B250, C251, D251, E251, F#251, G251, A251, B251, C252, D252, E252, F#252, G252, A252, B252, C253, D253, E253, F#253, G253, A253, B253, C254, D254, E254, F#254, G254, A254, B254, C255, D255, E255, F#255, G255, A255, B255, C256, D256, E256, F#256, G256, A256, B256, C257, D257, E257, F#257, G257, A257, B257, C258, D258, E258, F#258, G258, A258, B258, C259, D259, E259, F#259, G259, A259, B259, C260, D260, E260, F#260, G260, A260, B260, C261, D261, E261, F#261, G261, A261, B261, C262, D262, E262, F#262, G262, A262, B262, C263, D263, E263, F#263, G263, A263, B263, C264, D264, E264, F#264, G264, A264, B264, C265, D265, E265, F#265, G265, A265, B265, C266, D266, E266, F#266, G266, A266, B266, C267, D267, E267, F#267, G267, A267, B267, C268, D268, E268, F#268, G268, A268, B268, C269, D269, E269, F#269, G269, A269, B269, C270, D270, E270, F#270, G270, A270, B270, C271, D271, E271, F#271, G271, A271, B271, C272, D272, E272, F#272, G272, A272, B272, C273, D273, E273, F#273, G273, A273, B273, C274, D274, E274, F#274, G274, A274, B274, C275, D275, E275, F#275, G275, A275, B275, C276, D276, E276, F#276, G276, A276, B276, C277, D277, E277, F#277, G277, A277, B277, C278, D278, E278, F#278, G278, A278, B278, C279, D279, E279, F#279, G279, A279, B279, C280, D280, E280, F#280, G280, A280, B280, C281, D281, E281, F#281, G281, A281, B281, C282, D282, E282, F#282, G282, A282, B282, C283, D283, E283, F#283, G283, A283, B283, C284, D284, E284, F#284, G284, A284, B284, C285, D285, E285, F#285, G285, A285, B285, C286, D286, E286, F#286, G286, A286, B286, C287, D287, E287, F#287, G287, A287, B287, C288, D288, E288, F#288, G288, A288, B288, C289, D289, E289, F#289, G289, A289, B289, C290, D290, E290, F#290, G290, A290, B290, C291, D291, E291, F#291, G291, A291, B291, C292, D292, E292, F#292, G292, A292, B292, C293, D293, E293, F#293, G293, A293, B293, C294, D294, E294, F#294, G294, A294, B294, C295, D295, E295, F#295, G295, A295, B295, C296, D296, E296, F#296, G296, A296, B296, C297, D297, E297, F#297, G297, A297, B297, C298, D298, E298, F#298, G298, A298, B298, C299, D299, E299, F#299, G299, A299, B299, C300, D300, E300, F#300, G300, A300, B300, C301, D301, E301, F#301, G301, A301, B301, C302, D302, E302, F#302, G302, A302, B302, C303, D303, E303, F#303, G303, A303, B303, C304, D304, E304, F#304, G304, A304, B304, C305, D305, E305, F#305, G305, A305, B305, C306, D306, E306, F#306, G306, A306, B306, C307, D307, E307, F#307, G307, A307, B307, C308, D308, E308, F#308, G308, A308, B308, C309, D309, E309, F#309, G309, A309, B309, C310, D310, E310, F#310, G310, A310, B310, C311, D311, E311, F#311, G311, A311, B311, C312, D312, E312, F#312, G312, A312, B312, C313, D313, E313, F#313, G313, A313, B313, C314, D314, E314, F#314, G314, A314, B314, C315, D315, E315, F#315, G315, A315, B315, C316, D316, E316, F#316, G316, A316, B316, C317, D317, E317, F#317, G317, A317, B317, C318, D318, E318, F#318, G318, A318, B318, C319, D319, E319, F#319, G319, A319, B319, C320, D320, E320, F#320, G320, A320, B320, C321, D321, E321, F#321, G321, A321, B321, C322, D322, E322, F#322, G322, A322, B322, C323, D323, E323, F#323, G323, A323, B323, C324, D324, E324, F#324, G324, A324, B324, C325, D325, E325, F#325, G325, A325, B325, C326, D326, E326, F#326, G326, A326, B326, C327, D327, E327, F#327, G327, A327, B327, C328, D328, E328, F#328, G328, A328, B328, C329, D329, E329, F#329, G329, A329, B329, C330, D330, E330, F#330, G330, A330, B330, C331, D331, E331, F#331, G331, A331, B331, C332, D332, E332, F#332, G332, A332, B332, C333, D333, E333, F#333, G333, A333, B333, C334, D334, E334, F#334, G334, A334, B334, C335, D335, E335, F#335, G335, A335, B335, C336, D336, E336, F#336, G336, A336, B336, C337, D337, E337, F#337, G337, A337, B337, C338, D338, E338, F#338, G338, A338, B338, C339, D339, E339, F#339, G339, A339, B339, C340, D340, E340, F#340, G340, A340, B340, C341, D341, E341, F#341, G341, A341, B341, C342, D342, E342, F#342, G342, A342, B342, C343, D343, E343, F#343, G343, A343, B343, C344, D344, E344, F#344, G344, A344, B344, C345, D345, E345, F#345, G345, A345, B345, C346, D346, E346, F#346, G346, A346, B346, C347, D347, E347, F#347, G347, A347, B347, C348, D348, E348, F#348, G348, A348, B348, C349, D349, E349, F#349, G349, A349, B349, C350, D350, E350, F#350, G350, A350, B350, C351, D351, E351, F#351, G351, A351, B351, C352, D352, E352, F#352, G352, A352, B352, C353, D353, E353, F#353, G353, A353, B353, C354, D354, E354, F#354, G354, A354, B354, C355, D355, E355, F#355, G355, A355, B355, C356, D356, E356, F#356, G356, A356, B356, C

The image displays a musical score for piano, consisting of two systems of staves. The first system features a treble and bass staff. The treble staff contains a melodic line with a forte (*f*) dynamic marking. The bass staff contains a bass line with a forte (*f*) dynamic marking. The second system shows a treble staff with chords and a bass staff with a complex, dense texture, marked with fortissimo (*ff*) and sforzando (*sf*) dynamics. The score is written in a key signature of two sharps (F# and C#) and a 2/4 time signature.

Many of the effects of the modal use are common to the "duodecuple" system, which is treated in the next chapter. For there, as in the modes, we shall constantly meet *unexpected* major and minor triads whenever we find ourselves temporarily lapsing into the diatonic major and minor ways of listening.

CHAPTER IV

(E) THE DUODECUPLE (OR TWELVE-NOTE) SCALE

BY far the most revolutionary of all the modern traits in music is the *complete* acceptance of the equal temperamental tuning with all that it entails. Hitherto, notwithstanding the fact that the semitone is a practical and not a theoretical one, the whole system of harmony and melody has been built largely upon the basis of the pure unequal tuning.

**Division
of the
Octave.**

Even with the equal tuning such a course is really neither unscientific nor unnatural. Does not the mathematician have to be content with his unending decimal, and the trigonometrist with his unsquared circle? The acoustical discrepancies of the "equal temperament" are so very slight that even Nature herself makes no bother about them. One only of a hundred various experiments will prove this. Take the most troublesome note of the "equal tuning" on the pianoforte. Press the middle F-sharp down silently, then strike a low D rather sharply, and the F-sharp will at once automatically respond in sympathetic vibration.

The outcome of all this is the ability to hear, think, and write freely in either of these opposing systems, and it is a curious fact that composers who avowedly bind themselves to using one temperament entirely, are constantly found thinking and writing in the other. It has always been, and probably always will be so with composers and listeners alike, and the musical art is immensely enriched thereby.

**Combined
Use of the
Two
Systems.**

To return to the scales, the reader must carefully distinguish between the older "chromatic" scale and the "new semitonal" one. Both, of course, divide the octave into twelve steps, but the older view assumes that the chromatic notes are only of secondary importance to the diatonic ones, from which, indeed,

**Comparison
with the
Chromatic
View.**

those are derived. In the words of Professor Niecks, "the so-called chromatic scale is not a mode, the chromatic notes being only modifications of diatonic notes." The "new semitonal," or "duodecuple" scale, thrusts this idea aside altogether. The followers of the older system exercise considerable care with their notation, whereas a duodecuple scale composer might prefer to write the following Example, as at *b*:

Ex. 67. SCHÖNBERG, 4 Songs, Op. 2, No. 1.

Ex. 67 consists of two musical examples, (a) and (b), arranged in two staves. The top staff is a treble clef with a key signature of two flats (B-flat and E-flat). Part (a) shows a melodic line with chromatic alterations (accidentals) and a piano accompaniment in the bottom staff. Part (b) shows the same melodic line with a simplified notation scheme, where chromatic alterations are indicated by a different notation system.

Ex. 68. STRAUSS, Elektra's Triumph motive.

Ex. 68 consists of two musical examples, (a) and (b), arranged in a single staff. Part (a) shows a melodic line with chromatic alterations (accidentals) and a piano accompaniment. Part (b) shows the same melodic line with a simplified notation scheme, labeled "(b) (Scheme)".

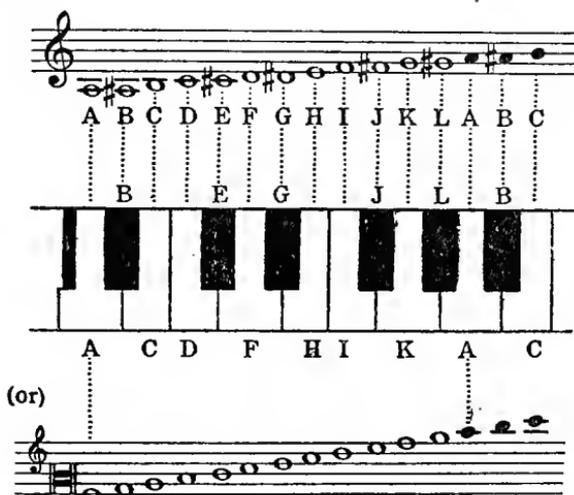
As a matter of fact, the new music goes but clumsily on the old lines of notation and keyboard nomenclature. Its proper representation to the mind through the eye would seem to demand a new system, in which the following points should be secured:

Inadequacies of the Old Notation.

- (a) The abolition of accidentals in notation.
- (b) A new system of naming the notes of the keyboard.
- (c) The avoidance of any suggestion, even of a secondary relationship of the black notes to the white ones—in other words, the complete obliteration of any supposed diatonic foundation for the old chromatic notes.

The following illustrations are merely tentative, and are only used to represent the main principles of the system

more clearly to minds which are so firmly wedded to the diatonic scale.



The lack of such a characteristic notation leads to an indifference in using the stave nomenclature, and the promiscuous use of sharp or flat in the works of the Romantic composers points to an ever-increasing tendency to adopt the equal temperament as a new basis for harmony.

There are two ways of using the new duodecuple principle :

- (a) The autocracy of a chosen Tonic.
- (b) The abolition of any tonal centre,—a veritable note-communism.

The first admits the predominance of the Tonic—in other words, a fixed tonality. The second throws even the tonic overboard. The first appeals to the intelligence for the retention in the mind of a tonal centre ; the second, to the senses only, being a question of the perception of absolute pitch, or else the vaguest kind of impressions possible. The first is capable of endless expansion and development, the second is merely a *cul de sac*, and useful only in very limited ways. The abolition of key-signature is optional with the first style, but compulsory with the second.

The Two Applications of the New System.

I.—A TONAL CENTRE.

Many of the composers working on the older system, which continually paid respect to the varying degrees of the scale, notes, and chords, frequently used the newer "semi-tonal" scale melodically. The vital principle of the older system is the interesting individuality arising from the very inequality of the intervals and chords. This is the very life-blood of the diatonic principle. When these composers wished to slightly loosen the bonds of tonality for the

Perfect Equality of Intervals. purposes of the expression of their thoughts, they had recourse to two devices: (a) the laying of stress on the chromatic notes, as Mozart has done in the Introduction to the String Quartet in C; and (b) the use of a long succession of equal intervals. The first led to the "Post-Impressionism" of Eric Satie, who, by the way, thinks it politic for some subtle reason to print his music *in red ink*; the second to the pure Impressionism of Debussy and the "tonal scale" writers.

If we take a succession of sixths or thirds in either of the diatonic modes, we shall have a certain alternation in the quality of these intervals. They are all sixths or thirds, but some are major and some minor. The older composers, however, were not slow to see the special uses of a succession of exactly equal intervals. A suspension of diatonic tonality was secured, and the first principles of pure Impressionism were laid in the *melismæ* of Chopin and the cadenzas of Liszt. In these we see a working out of little finger-patterns on the keyboard in an entirely communistic spirit, as if there were twelve white notes to the octave, and, indeed, these passages would come much more naturally to the fingers if the keyboard really were so constructed. This is well exemplified in the following :

Ex. 69. Allegro vivace. SGAMBATI,
Toccata. Op.18.

(Pf.)

(Scheme.)

This view of the octave being composed of twelve equal divisions admits long successions of intervals or chords exactly equal in quality. This constitutes a new harmonic principle capable of wide application, ranging from the suggestion of a remote modal feeling to passages of purposely evasive tonality, and to such beautiful expressions as the following :

Ex. 70. P. CORDER, Elegy in F

Andante.

(Pf.) *cantabile ma piano*

una corda

* * * *

[equal major 3rds]

Ex. 71.

Andante.

ELGAR, "King Olaf?"

Voices. (Ten.) (Bass.)

pp Not with the weapons of war that thou wieldest etc.

Orch. Bassl.

Ex. 72.

C. FRANCK,
"Pièce Héroïque."

Ex. 73.

BANTOCK, "Atalanta in Calydon."

Irate. TUTTI.

ff yea, with thine hate

God

III. IV. O

I. II. V. yea, with thine hate

I. II. V.

Ex. 74. SIBELIUS,
4th Symphony.

Allegro.

Successions of minor thirds and minor sixths were possible on the older principles. The collapse came when a string of major thirds or major sixths was attempted, and the effort made by some of the theorists to explain a succession of diminished seventh chords as including some falsely written major sixths would not be devoid of humour had it not been productive of such deplorable results to students of harmony.

But the power of giving successions of equal intervals and chords by no means exhausts the possibilities of the "semitonal" scale. Apart from the special Impressionistic technique discussed in Chapter X., the boundaries of harmonic colour have been infinitely widened. The passages in this chapter can only be explained satisfactorily on the basis of the duodecuple scale system, and it is noteworthy that whilst many composers secure more coherence by a semitonic melody, quite mild by itself, others repudiate any such assistance to the comprehension of their harmony or melody.

The central point of this system is the complete abandonment of the Dominant as such, a course which at once brings with it a keenly felt want of some efficient substitute for securing cohesion. Consequently, in tracing the gradual extension of the scale possibilities, we find this note is the last to give up its well-established special claims. With the duodecuple system, however, if there is any secondary centre in addition to the chief Tonic hold, it is the diminished fifth or the augmented fourth; or, in other words, the seventh semitonal degree.

Now, the number twelve is not cryptic like three or nine, nor has it the mystic significance of seven, yet there does

seem to be some polar mystery about this possible secondary centre. If we walk away from the unison F sharp in two parts by contrary motion, we shall discover some curious things. If we progress far enough by minor seconds or minor thirds, or augmented fourths or major sixths, we shall eventually reach the octave C to C; this is the principle of the *duodecuple* system. If we progress similarly, but by major seconds, major thirds, perfect fourths, or augmented fifths, we shall eventually reach the octave of F sharp. A glance at Example 75 (d) shows that it is possible to regard the "whole-tone" system as included within the duodecuple.

Ex. 75.

The image shows musical notation for Example 75. It consists of two systems of piano accompaniment. The first system has two measures labeled (a) and (b). The second system has three measures labeled (d), (e), and (c). Measure (d) shows a whole-tone scale in the right hand and its inversion in the left hand. Measures (e) and (c) show further developments of the whole-tone system with 'etc.' written below the notes.

Consequent on the abandonment of the old Dominant with its wonderful binding powers, composers naturally looked
 Some about for substitutes which would supply the
 Substitutes necessary cohesion of scale material. This they
 for found in various ways. At first the music was
 Dominant held together by a distinctive note such as the pedal
 Influence. drum roll in the following "Parsifal" extract (Example 76),
 or by a semitonal scale in some prominent part, as in the
 Wagner's "Sleep" *motiv* (Example 37); or the scale may be a
 "whole-tone" one, as in the Pierné extract (Example 77). Here
 the "mirror" idea, and the retrograde return to the Tonic,

leaves no doubt as to the tonal centre. In the "Heldenleben" *motiv* the tonality is held firmly by the pedal-chord on the brass instruments.

Ex. 76. Langsam. WAGNER, "Parsifal!"

Timp. in Eb. *pp*

Celli. *pp*

Detailed description: This musical score for Example 76 consists of two systems. The first system features a snare drum part (Timp. in Eb) in the upper staff and a cello part (Celli.) in the lower staff. The snare drum plays a steady pattern of quarter notes. The cello part begins with a half-note chord (Bb2, D2, F2) and then moves to a melodic line of quarter notes: Bb2, A2, G2, F2, E2, D2, C2, Bb1. The second system continues the snare drum pattern and the cello part with a melodic line of quarter notes: Bb1, A1, G1, F1, E1, D1, C1, Bb0. The tempo is marked 'Langsam' and the dynamic is 'pp'.

Ex. 77. Lento. PIERNÉ, "La Croisade des Enfants"

(Orch.) *pp*

Detailed description: This musical score for Example 77 shows an orchestral part in a grand staff. The tempo is marked 'Lento'. The music is characterized by a series of chords, each consisting of a triad with a suspended fourth. The chords are: C major (C-E-G), F major (F-A-C), Bb major (Bb-D-F), Eb major (Eb-G-Bb), Ab major (Ab-C-Eb), and Gb major (Gb-Bb-D). The dynamic is 'pp'.

Ex. 78. Etwas langsamer. STRAUSS, "Ein Heldenleben."

Fis. *pp*

(Tbns.) *pp*

Tubas. *pp*

Detailed description: This musical score for Example 78 features a flute part (Fis.) in the upper staff and a trombone part (Tbns.) in the lower staff. The tempo is 'Etwas langsamer'. The flute part plays a melodic line of quarter notes: G4, A4, Bb4, C5, Bb4, A4, G4, F4, E4, D4, C4, Bb3, A3, G3, F3, E3, D3, C3, Bb2, A2, G2, F2, E2, D2, C2, Bb1, A1, G1, F1, E1, D1, C1, Bb0, A0, G0, F0, E0, D0, C0, Bb-1, A-1, G-1, F-1, E-1, D-1, C-1, Bb-2, A-2, G-2, F-2, E-2, D-2, C-2, Bb-3, A-3, G-3, F-3, E-3, D-3, C-3, Bb-4, A-4, G-4, F-4, E-4, D-4, C-4, Bb-5, A-5, G-5, F-5, E-5, D-5, C-5, Bb-6, A-6, G-6, F-6, E-6, D-6, C-6, Bb-7, A-7, G-7, F-7, E-7, D-7, C-7, Bb-8, A-8, G-8, F-8, E-8, D-8, C-8, Bb-9, A-9, G-9, F-9, E-9, D-9, C-9, Bb-10, A-10, G-10, F-10, E-10, D-10, C-10, Bb-11, A-11, G-11, F-11, E-11, D-11, C-11, Bb-12, A-12, G-12, F-12, E-12, D-12, C-12, Bb-13, A-13, G-13, F-13, E-13, D-13, C-13, Bb-14, A-14, G-14, F-14, E-14, D-14, C-14, Bb-15, A-15, G-15, F-15, E-15, D-15, C-15, Bb-16, A-16, G-16, F-16, E-16, D-16, C-16, Bb-17, A-17, G-17, F-17, E-17, D-17, C-17, Bb-18, A-18, G-18, F-18, E-18, D-18, C-18, Bb-19, A-19, G-19, F-19, E-19, D-19, C-19, Bb-20, A-20, G-20, F-20, E-20, D-20, C-20, Bb-21, A-21, G-21, F-21, E-21, D-21, C-21, Bb-22, A-22, G-22, F-22, E-22, D-22, C-22, Bb-23, A-23, G-23, F-23, E-23, D-23, C-23, Bb-24, A-24, G-24, F-24, E-24, D-24, C-24, Bb-25, A-25, G-25, F-25, E-25, D-25, C-25, Bb-26, A-26, G-26, F-26, E-26, D-26, C-26, Bb-27, A-27, G-27, F-27, E-27, D-27, C-27, Bb-28, A-28, G-28, F-28, E-28, D-28, C-28, Bb-29, A-29, G-29, F-29, E-29, D-29, C-29, Bb-30, A-30, G-30, F-30, E-30, D-30, C-30, Bb-31, A-31, G-31, F-31, E-31, D-31, C-31, Bb-32, A-32, G-32, F-32, E-32, D-32, C-32, Bb-33, A-33, G-33, F-33, E-33, D-33, C-33, Bb-34, A-34, G-34, F-34, E-34, D-34, C-34, Bb-35, A-35, G-35, F-35, E-35, D-35, C-35, Bb-36, A-36, G-36, F-36, E-36, D-36, C-36, Bb-37, A-37, G-37, F-37, E-37, D-37, C-37, Bb-38, A-38, G-38, F-38, E-38, D-38, C-38, Bb-39, A-39, G-39, F-39, E-39, D-39, C-39, Bb-40, A-40, G-40, F-40, E-40, D-40, C-40, Bb-41, A-41, G-41, F-41, E-41, D-41, C-41, Bb-42, A-42, G-42, F-42, E-42, D-42, C-42, Bb-43, A-43, G-43, F-43, E-43, D-43, C-43, 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D-251, C-251, Bb-252, A-252, G-252, F-252, E-252, D-252, C-252, Bb-253, A-253, G-253, F-253, E-253, D-253, C-253, Bb-254, A-254, G-254, F-254, E-254, D-254, C-254, Bb-255, A-255, G-255, F-255, E-255, D-255, C-255, Bb-256, A-256, G-256, F-256, E-256, D-256, C-256, Bb-257, A-257, G-257, F-257, E-257, D-257, C-257, Bb-258, A-258, G-258, F-258, E-258, D-258, C-258, Bb-259, A-259, G-259, F-259, E-259, D-259, C-259, Bb-260, A-260, G-260, F-260, E-260, D-260, C-260, Bb-261, A-261, G-261, F-261, E-261, D-261, C-261, Bb-262, A-262, G-262, F-262, E-262, D-262, C-262, Bb-263, A-263, G-263, F-263, E-263, D-263, C-263, Bb-264, A-264, G-264, F-264, E-264, D-264, C-264, Bb-265, A-265, G-265, F-265, E-265, D-265, C-265, Bb-266, A-266, G-266, F-266, E-266, D-266, C-266, Bb-267, A-267, G-267, F-267, E-267, D-267, C-267, Bb-268, A-268, G-268, F-268, E-268, D-268, C-268, Bb-269, A-269, G-269, F-269, E-269, D-269, C-269, Bb-270, A-270, G-270, F-270, E-270, D-270, C-270, Bb-271, A-271, G-271, F-271, E-271, D-271, C-271, Bb-272, A-272, G-272, F-272, E-272, D-272, C-272, Bb-273, A-273, G-273, F-273, E-273, D-273, C-273, Bb-274, A-274, G-274, F-274, E-274, D-274, C-274, Bb-275, A-275, G-275, F-275, E-275, D-275, C-275, Bb-276, A-276, G-276, F-276, E-276, D-276, C-276, Bb-277, A-277, G-277, F-277, E-277, D-277, C-277, Bb-278, A-278, G-278, F-278, E-278, D-278, C-278, Bb-279, A-279, G-279, F-279, E-279, D-279, C-279, Bb-280, A-280, G-280, F-280, E-280, D-280, C-280, Bb-281, A-281, G-281, F-281, E-281, D-281, C-281, Bb-282

Ob. *sf*

Again, we may go outside the diatonic range for one of the newer chords only, or for two at the most, immediately returning either to the same chord, or to some other well-known harmony. This is seen in the following examples:

Ex. 79.

Largo sostenuto.

VAUGHAN-WILLIAMS, "A Sea Symphony"

(Orch.) *pp* *ppp* *pp* *ppp* (Scheme)

Ex. 80.

d = 80.

STRAUSS, "Elektra."

pp

Ex. 81.

d = 88.

STRAUSS, "Elektra."

pp

Ex. 82.

DELIUS, "Das Veilchen"

As you sweet flow - - - er

Allegro.

SIBELIUS, 4th Symphony.

(Orch.) *p dolce*

Str. pizz.

The next method is the progression by exactly equal steps in the bass; at first by minor thirds, as in the Wagner *motiv* (Example 37); then by major thirds, as in the Bantock and Karg-Elert passages (Examples 83 and 84).

Ex. 83.

Lento sostenuto cantabile.

BANTOCK, "Gethsemane."

mp

(Scheme.)

All major common chords.

Ex. 84.

Vivace (quasi Toccatina.)

Sw. (16, 8, 4, $2\frac{1}{3}$, 2.)KARG-ELERT,
Pastel. Op. 92, N^o 3.

(Org.) *p*

p

Then by perfect fourths and augmented fourths, and by major seconds; Max Reger is very partial to this latter progression of roots.

Ex. 85.

RAVEL, "Valse Nobles."

(Scheme.)

mf *cresc.* *etc.*

Ex. 86.

RAVEL, "Valse nobles."

(Pf.) *p*

Ex. 87. $\text{♩} = 66.$

REGER, "Kyrie." Op. 59.

There are other beautiful passages which are not so amenable to classification, but these will usually be found to contain some sequential progression of the bass, or some binding melodic lines, and *always* a distinct hold of the Tonic. In both Corder and Elgar examples, 88 and 90, there is sequencing in the bass, and in these, as in the "Wotan" *motiv*, there is no sense of losing hold of the Tonic chord from which they set out, and to which they are returning in no doubtful way. It is this system which explains numberless passages in the works of Wagner and Strauss, of Reger and Ravel, where the sheer harmonic beauty often makes tears start involuntarily to the eyes.

Ex. 88.

P. CORDER,

"Transmutations," No 5.

Ex. 89.

WAGNER,
"Siegfried"

a) Mässig.

b)

From the same.

Ex. 90. Adagio, mistico. ELGAR, "Apostles"

The semitonal progression in Example 92, as with the too exact sequencing of Example 91, tends to loosen the ties of the Tonic. This treatment possesses emotional effects all its own. What a range of feeling, too, lies between his Falstaff "who shouts delightedly at the prospect of battle" and the composer's portrayal of the Agony in the Garden in "The Apostles"!

Ex. 91. ELGAR, "Falstaff."

THE DUODECUPLE (OR TWELVE-NOTE) SCALE 47

Ex. 92. *Molto tranquillo e sostenuto.* ELGAR, "Apostles"

Musical score for Ex. 92, Elgar's "Apostles". The score is in G-flat major (two flats) and 4/4 time. It consists of two staves, treble and bass. The treble staff begins with a piano (*ppp*) dynamic. The music features a duodecimal scale in the right hand and a supporting bass line in the left hand. The key signature has two flats (B-flat and E-flat).

It was only natural that new chords should spring into being with the new system. Chords of the augmented triads, of the major seventh, and many new forms built up mainly of seconds, often wrongly regarded as "whole-tone" chords, spring indigenous from it.

New
Chords.

Ex. 93. SCHÖNBERG,
Sextett, "Verklärte Nacht."

Musical score for Ex. 93, Schönberg's "Verklärte Nacht". The score is in D-flat major (two flats) and 3/4 time. It consists of two staves, treble and bass. The music is characterized by dense, complex chords and a duodecimal scale in the right hand. The key signature has two flats (B-flat and E-flat).

Ex. 94. *Furioso.* WAGNER, "Parsifal," Act II.

Musical score for Ex. 94, Wagner's "Parsifal". The score is in D-flat major (two flats) and 2/2 time. It consists of four staves: two for the orchestra (labeled "(Orch.)") and two for the piano. The piano part begins with a piano (*p*) dynamic and later moves to a fortissimo (*f*) dynamic. The music features a duodecimal scale in the piano part and complex chords in the orchestra. The key signature has two flats (B-flat and E-flat).

Ex. 95.

Harmonic outline.

WAGNER, "Siegfried."

Two staves of music in 4/4 time. The top staff is marked 'w. w.' and the bottom staff is marked 'Orch. fff'. The music consists of a series of chords and melodic lines, with a large bracket encompassing the second and third measures of both staves.

Ex. 96.

WAGNER, "Siegfried."

Prelude, Act III.

Two staves of music in 4/4 time. The top staff is marked 'Orch. fff'. The music consists of a series of chords and melodic lines, with a large bracket encompassing the first and second measures of both staves. A small asterisk is placed below the bottom staff in the third measure.

In some ways, the "tonal" scale is included in the "semi-tonal," and its explanation as an arpeggio in the normal scale of twelve semitones is probably one of the richest seams yet remaining to be worked. Where is the composer who will do for it all the tremendous things done with the diminished seventh chord by J. S. Bach? Of course, false relations cannot exist in this system, and the following example, which is a good illustration of the real sequencing previously alluded to, must be accepted without reserve in this respect:—

Ex. 97.

Allegro assai.

N. TSCHEREPNINE, "Narcisse"

In general composition the "duodecuple" scale may be used in three ways—partially, occasionally, or completely.

Applications. *Partially*, in the desire to widen the harmonic colour of the diatonic genus; this is the explanation of the progressions of major thirds in Chopin, César Franck, and Wagner.

Occasionally, for purposes of contrast, as in Walford Davies' "Everyman," Rébikoff's "Christmas Tree," and Strauss's "Rosenkavalier," where diatonic passages are used for certain sections in contrast to the modern harmony of others. Or it may be adopted *entirely* as the regular and only means of expression, the main requirement from the hearer being that he should retain the feeling of the Tonic in mind throughout. Of course this does not bar modulation with its consequent change of Tonic as the music progresses. There is still a fourth application—that of purposely loosening and obscuring the Tonic temporarily. This brings us to the second section of this chapter—dealing with the complete abolition of any Tonic centre. This domain is the special province of the Post-Impressionists, and also leads to the musical Pointillism of the later Stravinsky.

II.—NO TONAL CENTRE.

The complete abolition of any tonal centre in applying this system means either—

- (a) a deliberate suspension, or at any rate an intentional obscuring of the tonality for a time;
- (b) the discarding of almost all appeal save the purely physical and sensuous one; or
- (c) the conveyance of ideas of a very hazy and nebulous type.

The first method is found frequently in Introductions. Illustrations of this might range from Mozart's famous String Quartet in C up to the recent *Kammer-Symphonie* of Schönberg.* The same aim is evidenced in bridge-passages where the composer deliberately loiters over an obscure combination of notes. What a creaking of scale-systems is heard in the following passage from Chopin's *Impromptu* in F sharp!

Ex. 98. CHOPIN,
"Impromptu in F sharp."

The musical score for Ex. 98 is a piano piece in F# major. It features a treble and bass clef. The melody in the treble clef consists of a series of eighth notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The bass clef accompaniment includes a piano (p) dynamic marking and a triplet of eighth notes: F#4, G4, A4. The piece is characterized by its chromatic movement and the absence of a fixed key signature throughout the passage.

The same principle will apply to many of the brilliant cadenzas in Liszt's pianoforte works, and also to the gossamer-spun *melismæ* in Chopin, where the long chains of equal intervals temporarily obliterate the feeling of a fixed key.

In the second field, Post-Impressionists solve the problem boldly by abolishing all key-signatures. Some **Abolishment of Key-Signatures.** composers, such as Cyril Scott and Rébikoff, use the system for special subjects and on certain occasions, whilst others, like Eric Satie and Schönberg, adopt it as their sole means of expression.

* An analysis of this composition is given on p. 186.

Ex. 99.

CYRIL SCOTT. Poems, No 2.

(Harmonic outlines.)

Ex. 100.

CYRIL SCOTT,
"Jungle Book Impressions?"

If the possession of the sense of absolute pitch is a *sine qua non* for the proper reception of such music, then the Absolute Pitch. circle of appreciation at present is narrowed down almost to vanishing-point. Thinking in a twelve-note scale on such lines leads to things like this:—

Ex. 101.

SCHÖNBERG,
3 Klavierstücke. Op. 11, No 1.

Moderato.

and such endings as this:—

Ex. 102. *g* SCHÖNBERG, Op. 11, No 3.

pp

CHAPTER V

(C) THE "WHOLE-TONE" OR "TONAL" SCALE

IN Chapter XIII., on Modern Melody, we shall see that many of the newer chords, and also the new methods of chord-structure, were first predicted melodically.

Its Chordal Origin.

The "tonal" harmony is an exception to this, as the progression of three tones from the fourth to the seventh degree of the major and minor scales was regarded as a thing to be avoided rather than cultivated in melody. "Tonal" chords appeared long before the use of a

"tonal" scale became general. Indeed, the chief purpose of

Its limited Melodic Value.

the scale is a theoretical one, rather than a valuable artistic asset melodically. Harmonically the scale has been productive of enormous results; melodically it seems to have produced very little, save in certain dramatic directions in the portrayal of the bizarre, the fantastic, the *outré*, the diabolic, and the humorous.

Purcell, Handel, Mozart, and Greene all exploited the possibilities of the augmented triad.

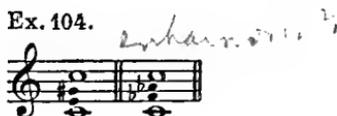
Ex. 103.

PURCELL, "Dido and Æneas" Overture.

A careful analysis of this chord shows it to be constructed on the "equal interval" system (discussed on p. 95) by the superposition of two major thirds. This divides the octave into three equal parts, and the notation of any one of these intervals may appear as a diminished fourth instead

of a major third without affecting the nature of the chord in any way.

Ex. 104.



The curious “mirroring” or “reflection” by the reverse downward structure is the natural result of the “equal” system, and accounts both for its characteristic success in very definite harmonic colouring and also for its limitations.

Ex. 105.



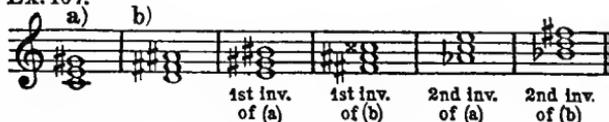
The scale seems to have gradually evolved from this and similar “tonal” chords, probably in the attempt to secure passing notes. It cannot give more than two series of different sounds [(a) and (b)], although they may be variously “noted.” The series at (c) coincides with the one at (a), and so on. Hence its limited possibilities for melodic purposes.

Ex. 106.



The same limitations apply to any given combination in this scale. In reality only two triads and their inversions can be used in either of these two scales, or we may consider the possible triads as six without inversions.

Ex. 107.



For theoretical purposes it is therefore convenient to think of two series of “tonal” sounds only—one starting from C natural, the other from C sharp.

Ex. 108.



In the equal system of chord-structure, chords may be built up also by seconds or thirds, or by seconds and thirds mixed, and even by fourths. The chords may contain from **Its great Variety of Chords.** three to six different notes depending for their acceptableness and effect entirely on their arrangement and tone-colour.

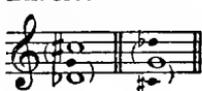
Ex. 109.



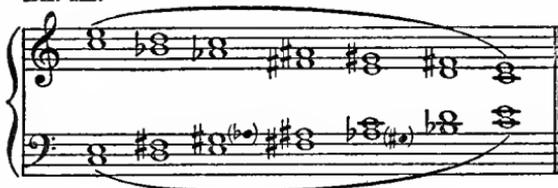
etc.

Some curious results of the "reflection" idea may be seen in the following scales and chords and in the Debussy extract, where the composer "mirrors" the sharps in the right hand by the flats in the left. Of course this effect is optical, and not aural.

Ex. 110.



Ex. 111.



Ex. 112.



b)

Ex. 113.

DEBUSSY, "Images," No. 1.

Lent. (92 = ♩)

(Pft.)

mp

pp

etc.

Used in a method which follows out the system strictly, one must not think of these chords as requiring resolution. The composers who adopt this system, generally prefer scale motion for harmonic progression, with a common note as link, if possible.

Ex. 114.

DEBUSSY, "Pelléas."

(a)

p

3

(b)

p

(Voice)

3

6

etc.

Ex. 115.

Adagio.

RÉBIKOFF, "Les rêves."

Musical score for Ex. 115, Adagio, Rébikoff, "Les rêves." The score is in 3/8 time and consists of two systems. The first system starts with a piano (p) dynamic and a mezzo-forte (mf) dynamic. The second system includes a fermata over the final notes. The bass line features a sequence of notes with flats and asterisks, and a double bar line with a repeat sign.

Ex. 116. Vivo. ($\text{♩} = 138.$)

RÉBIKOFF, "Une Fête," N^o 6.

Musical score for Ex. 116, Vivo, Rébikoff, "Une Fête," N^o 6. The score is in 2/4 time and consists of two systems. The first system starts with a piano (p) dynamic. The second system ends with the word "etc." The bass line features a sequence of notes with sharps and a double bar line with a repeat sign.

But composers very rarely confine themselves to either of the two possible scale systems, and draw freely from both in order to obtain a less monotonous and more fluent progression. In Example 117, at (a) we have the pure tonal progression; at (b) a resolution into the neighbouring tonal series. Two series are also used in the Karg-Elert example. Further than this, the composers seldom seem satisfied without some sort of resolution into the older system, which really places all such examples under the "duodecuple" system.

Ex. 117.
a)

Musical score for Ex. 117, a). The score is in 2/4 time and consists of two systems. The first system shows a melodic line with a fermata over the final notes. The second system shows a resolution into a different tonal series. The bass line features a sequence of notes with sharps and a double bar line with a repeat sign.

b) (Scheme.)

Ex. 118.

KARG-ELERT,
"Sonatina Exotique," for Pft.

Allegro burlesco.

Ex. 119.

ELGAR, "Gerontius."

Adagio.

(Voice) "I go before my Judge"

The best possible use for these new "tonal" chords is by absorption into the older practice. Like all other chords on an exactly equal division of the octave, their chameleon-like character and their absolute indifference to notation makes their value for purposes of effecting modulations inestimable. By approaching these tonal chords in one light, and quitting them in

Modulatory
Power of
"Tonal"
Chords.

another, we see their possible derivation from altered or added notes imposed on the older chords (see Chapter VIII.). The old rule of roots a fourth apart upwards or fifth downwards meets the case very well. Or they go equally well by chromatic resolution.

Ex. 120.

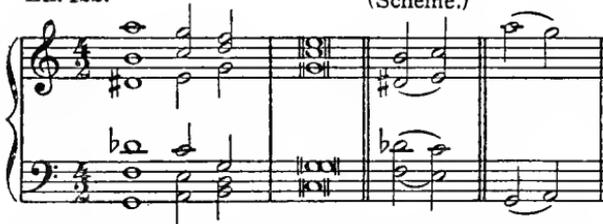


Ex. 121.



Ex. 122.

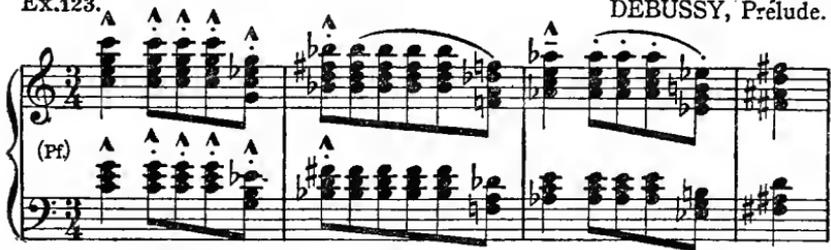
(Scheme.)



The Impressionist use of a "tonal" chord will be seen in the following:—

Ex. 123.

DEBUSSY, Prélude.



It is the Impressionist exploitation of the system which has wrongly associated the origin of "tonal" ideas with the modern French school. It was other than impressionistic devices which first evolved the "tonal" scales. "Tonal" chords appear in Mozart, and more modern things may be found in Bach. The modern Russians were far ahead of the French in the fields of harmonic enterprise and initiative. The "tonal" idea can be used to any extent harmonically without the basis of the so-called scale. These "tonal" chords seem to have sprung quite naturally from experimental variations of the Dominant sevenths and ninths, and from so-called falsely written minor thirteenth.

Ex.124. STRAUSS,
"Ein Heldenleben."
Langsam.

Musical score for Strauss's "Ein Heldenleben," marked "Langsam." The score is for strings and tubas (Str. Tbn.). It features a complex harmonic structure with multiple layers of chords and a prominent, sustained low-frequency chord in the tuba part.

Ex.125. FARJEON,
"Three Cornered Kingdom." Op.30.

Musical score for Farjeon's "Three Cornered Kingdom," Op.30. The score is for piano (Pr.). It features a complex harmonic structure with multiple layers of chords and a prominent, sustained low-frequency chord in the tuba part.

The mental attitude doubtless counts for much in this matter, but the fanciful "generator" and "false notation" theory totters over when confronted by such a passage as the following

Ex. 126. Mässig langsam. STRAUSS, "Ein Heldenleben,"

Musical notation for Ex. 126, Strauss "Ein Heldenleben." The notation consists of two staves of music. The first staff is labeled "(Orchl. Brass.)" and features a melodic line with dynamic markings *sfz*. The second staff shows a more complex, multi-measure passage, also with *sfz* markings.

It is only when applied melodically that we think scale-wise, and here its application seems to be extremely circumscribed. It is when a series of passing notes is attempted that the clumsiness of the present notational system becomes tryingly apparent.

Ex. 127.

Musical notation for Ex. 127, showing a single staff with a series of passing notes. The notes are written in a way that highlights the awkwardness of the notation for a whole-tone scale.

Ex. 128.

Musical notation for Ex. 128, showing two staves of music. The notation illustrates a series of passing notes in a whole-tone scale, demonstrating the limitations of the current notation system.

Ex. 129.

DEBUSSY, "Children's Corner."

Musical notation for Ex. 129, Debussy "Children's Corner." The notation shows a single staff with a series of passing notes, illustrating the application of the whole-tone scale in a specific context.

DEBUSSY,
"Chanson de Bilitis."



Whatever view we take of the tonal system, it is unnecessary to regard it suspiciously as a rival to oust the older scales; let such people rather turn their eyes towards the advances of duodecuple practice. Used purely by itself, the "tonal" system is very circumscribed. This scale is too mathematical and precise a product, and consequently too monotonous in effect, to be capable of much development on its own lines. Its powers of modulation and transposition are small indeed compared with the other systems. Its pure use is limited generally to the shortest of characteristic sketches.

Even when adopted for longer works, as Debussy's "Pelléas et Mélisande"—where the rather strained *milieu* or "aural vision," necessitated by the tonal scale, undoubtedly assists the mystic atmosphere of the work—the composer continually falls back to the relief of semitones. This is done by resolving the chords founded on the C "tonal" scale into harmony formed on the C sharp series, and *vice versa*. Frequently, too, he seems compelled to seek resolution into the diatonic system, as in Example 114*b*, and in the Elgar *motiv* (Example 119). It is to be noticed also that the "tonal" passage from the pianoforte prelude in Example 123 commences with a diatonic concord. For bridge passages and characteristic phrases, where a suspension of tonality is desirable, its use is admirable, and the beauty and power of the "tonal" chords as a means of modulation has long been fully established.

Its Real Value. The real value, then, of the two "tonal" systems—the C series or the C sharp scale, or a combination of both—is twofold:

- (a) Pure systems for relief and for characteristic effects and atmospheres.
- (b) Their absorption into the older systems for the further enrichment of the ever-increasing power of harmonic possibility.

This latter is effected often by treating the "tonal" chord on the lines of the "added note" theory, or by regarding the extreme note of the tonal chord as an *appoggiatura* requiring resolution.

CHAPTER VI

(D) SOME OTHER SCALES

IN the revival of the modal scales and the invention of the "tonal series" we see an endeavour to escape the thralldom of the major and minor scales by the adoption of widely diverse systems. As we have seen, even the older composers show evidences from time to time of this feeling of scale effeteness, especially with the major mode. Both Bach and Beethoven, as well as Schubert, show a great liking for the minor sixth in the major scale. Such passages as the following cannot be accounted for merely as chromatic chords, since no attempt is made to remove the impression of the modified note. A dalliance between the major and minor modes is characteristic of many of Bach's cadences, and he frequently approaches his minor cadences through the major sixth, as in Example 132.

Ex. 131.

Largo.

J. S. BACH.

St. Matthew Passion, N^o 70.

Ex. 132.

J. S. BACH.
"Das Wohltemperierte Klavier."

Ex. 136.

Allegro con brio.

BEETHOVEN, 7th Symphony.



The rise of nationalism in music, involving the artistic use of folk-song and dance with Liszt, Chopin, Dvořák, Grieg, Tschaikowsky, Stanford, and Sibelius, brought in many new scale influences, and these in their turn have fertilized the general art. Many *motives* of both Wagner and Debussy show a kinship with the Celtic pentatonic scale.

National Scales.

Ex. 137.

Poco marcato.

DEBUSSY, "Pagodas."



Ex. 138.

Moderato.

BUTTERWORTH,
"Shropshire Lad" Rhapsody.
Clar.

Then the opening out of the Eastern world turned men's eyes and minds towards Oriental philosophy and art, and the work of Alma-Tadema, Goodman, and Tyndal in painting, of Matthew Arnold and Fitzgerald, Goethe, Flaubert and Verlaine in literature, find their correlative in the compositions of Saint-Saëns, Bantock, Coleridge-Taylor, Moussorgsky, and hosts of others.

The Cult of the East.

Native Scales.

Melodically there are two ways of securing Eastern colour in music: (a) to use the identical native scale, or at any rate the nearest Western approximation possible; or (b) to secure this atmosphere by the use of characteristic intervals and rhythms, strangely barbaric or monotonously mesmeric, as the case may be. Usually the exact methods of the anthropologist do not appeal to the artistic temperament, but the French composer Saint-Saëns

is a noteworthy exception. A two years' sojourn in the Sahara produced many compositions based on native scales, and indirectly was responsible for much of the Eastern colour in such operas as "Samson et Dalila" and "Phryne." Saint-Saëns and Bantock. Félicien David in the "Desert," and Rubinstein in "The Asra," had already used the real Eastern scales, but the "cult of the East" is shown mostly in more subtle and less definite ways. In some instances these native scales are identical with the old modes. The theme from the second movement of Saint-Saëns's "Algerian Suite" might have been written on the scale system of either the Æolian or the Hypo-Dorian modes. On the other hand, Example 142 by Georges Hüe suggests a scale containing both C natural and C flat; thus the passage approaches very closely to what we have called the "duodecuple" scale. The influence as revealed in later composers is probably a free adaptation of the European system to the expression of Oriental and barbaric feeling and colour.

Ex. 139. Allegro moderato.

SAINT-SAËNS, Suite Algérienne.

SAINT-SAËNS, "Désir de l'Orient."

(from "La Princesse Jaune.")

Ex. 140.

Là . . bas . . dans un ciel de tur-quoi - se

Ex. 141.

Assez lente et très calme.

GEORGES HÜE,
"Croquis d'Orient," N° 1.

Dou . ce, douce a . do . ré . e, . . Dors: . Cesoir j'ai trop pleu . ré!

Ex. 142. GEORGES HÜE,
"Sur l'eau" No. 5.

Lent. *mp* *dim.* *3*

U-ne ro- - - se se berce au cou-rant du flot—

Ex. 143. COLERIDGE-TAYLOR, "A Negro Love-song,"
from the "African Suite," Op. 35.

Larghetto.

Ex. 144. BANTOCK. Songs of Persia,
"In the Harêm."

Doloroso. *ad lib.*

Ah!— the life, the light, the jew-el, Nour.ma - ha

Many of these Oriental expressions in melody are modal in themselves, although the harmony frequently modifies Modal this feeling. The solo No. 4 in Bantock's cantata Likenesses. "Christ in the Wilderness" is Hypo-Æolian in range, although based on the harmony of B flat minor.

Ex. 145. BANTOCK,
"Christ in the Wilderness"

Allegretto cantabile.

The wild-er-ness and the (Harp.)

Fl. 8

p Harp.

D.B. pizz.

so-li-ta-ry place shall be glad for them, shall be glad for them

Here is a suggestion of the "whole-tone" scale in a melody written over a commonplace tonic harmony.

Ex. 146. BANTOCK, "The Nightingale's Song"
from "Songs of Arabia."

Allegretto con dolcezza.

O bird that sing-est to the eve for - lorn

p

A writer has pointed out that Elgar's scale in his earlier period contained a flat supertonic and an augmented fourth.

This may be so. The present position is that a composer is free to adopt any arrangement of the seven divisions of the octave which will serve best for the purposes of his expression. This being so, the student may welcome a method of discovering the full possibilities of the septuple system in this direction. Take the scales on the "sharp" side in succession, and apply to each the signatures of the flat keys in succession, thus—

MODERN HARMONY

Method of constructing new scales.

Ex. 147.

Seven musical staves illustrating the method of constructing new scales. Each staff shows a sequence of notes in a specific key signature, with one note altered to create a new scale. The key signatures progress from one sharp (F#) to seven sharps (F#, C#, G#, D#, A#, E#, B#).

and so on.

The close of the so-called "Revolutionary" Étude of Chopin is interesting, whilst Example 150 gives the scale used largely by Sibelius in the first movement of his Fourth Symphony. The ending of another movement of this is shown in Example 151.

Ex. 148.

Allegro con fuoco.
*with 8va*CHOPIN,
Étude in C minor, Op. 10.

Musical score for Chopin's Étude in C minor, Op. 10. The score is in 4/4 time and features a final passage with dynamic markings *ff* and *passionata*. The melody is marked *with 8va*. The bass line includes fingering numbers 8 and 9. The piece concludes with a final chord in C minor.

Ex. 149. CYRIL SCOTT, "Dawn,"
from the "Jungle Book Impressions."
Andante semplice.

Musical score for Ex. 149, featuring piano and celeste parts. The piano part is marked *pp* and *dolce*. The celeste part is marked *8*. The score shows a scale-like melody in the right hand of the piano and a similar melody in the left hand, with some triplets and slurs.

Ex. 150. SIBELIUS.

Musical score for Ex. 150, a single melodic line in treble clef. It shows a scale-like melody with a slur and a fermata at the end.

Ex. 151. Molto moderato. SIBELIUS, 4th Symphony.

Musical score for Ex. 151, featuring multiple instruments. The score is in 3/4 time and shows a scale-like melody in the Oboe (Ob.), Clarinet (Clar.), and Trombone (Timp.) parts. The piano part is marked *pp* and *p*. The strings are marked *mf* and *p*. The score shows a scale-like melody in the upper parts and a similar melody in the lower parts, with some slurs and fermatas.

Examples 152 and 153 give a new scale as yet untried, and a transposition of it from C to G. It is partly diatonic, but largely "tonal."

Ex. 152.



Ex. 153.

Andantino.

Same transposed to G.



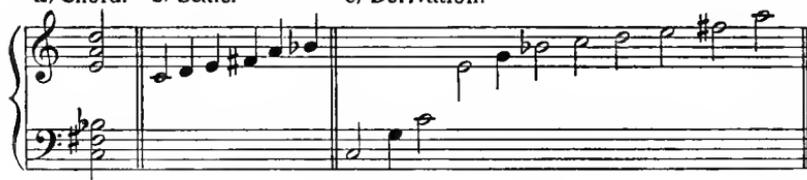
Amongst the many modern experiments with new scales, none are more interesting and individual in results than those Scriabine's used by Scriabine in his later works. Scriabine's Scales. favourite chord is a Dominant thirteenth with a flattened fifth and a major ninth.

Ex. 154.

a) Chord.

b) Scale.

c) Derivation.



But it is more than a favourite chord; it is in a way his only chord, from which he derives his scale and the whole of the material for his great tone-poem "Prometheus." He selects this chord from the natural harmonic series, and so evolves a scale which is only redeemed from coincidence with the "tonal" one by the leap of a minor third instead of a tone.

Comparison with "Tonal" System. This leap, however, makes all the difference, for whereas the "tonal" scale never changes its "colour-sensation" in its inversions, and only allows of one transposition (a semitone up or down), Scriabine's

scale is ever scintillating with new lights quite kaleidoscopic in colour, and it allows the full range of twelve transpositions. His chord, too, is surprisingly productive, containing in itself two different common chords—a minor and a major—besides two Dominant sevenths and thirteenth.

Ex.155.



The inversions are so numerous, and the selection and arrangement of the chord so wide, that a very severe test is laid upon the ear. The composer's habit, too, of using an augmented fourth to serve the same purpose as the diminished fifth renders the true nature of the chord difficult of comprehension to the eye.

The Inversions of his Chord.

The objection to the system most frequently urged is that whereas Scriabine finds his chord on the pure temperament,

Temperamental Arguments again.

his music is played and heard through the equal tuning. We have, however, already pointed out that Nature herself accepts most of the compromises of the equal temperament, at any rate so far as the law of sympathetic vibration goes. The problem, however, is increased by Scriabine's extension of Debussy's already exalted selection of overtones and the free placing of the various constituents necessitated by the inversions.

Ex. 156.



Whereas all the modern tendencies have been away from the Tonic and Dominant harmonic supremacy of music, Scriabine's method is a reversion to it with a vengeance. Indeed, the drawback to his system is the difficulty of providing points of rest and obtaining relief from the continual Dominant impression.

Reversion to Dominant Supremacy.

How the composer does this may be seen by glancing at the opening and closing bars of "Prometheus," given in Chapter XV. As with the purely "tonal" writers, Scriabine's music at present seems to be marred by its unrestfulness, and despite the transpositions of the original chord which the composer freely allows himself, it is rare indeed that we escape the all-pervading Dominant feeling. The gratuitous addition of the low E natural in the following passage is an immense relief in the suggestion of a definite key:—

Ex.157. SCRIABINE, "Prometheus."

Ex.158.

Scale

This selection of notes from the natural harmonic series, however, is not the only one which Scriabine has used for his compositions. The Sixth Sonata is founded on the following chord:—

Ex.159.

Scale

and the opening phrase is very typical of the way the composer commences to unfold his subjects, which are all contained in the one little harmonic kernel. The B flat is used first as an *appoggiatura* and then as a passing note.

Other
Selections
from the
Harmonic
Series.

Ex.160.

Modéré, mystérieux, concentré.

SCRIABINE, 6th Sonata.

Scriabine's Seventh Sonata is thoroughly imbued with the primeval element, being founded chiefly on the following chord and its transposition a major third lower:—

Ex.161.

Scale

The chord also appears momentarily with the eleventh. The following bars show its use according to a device well known to the Impressionists—*i.e.*, equal sevenths by similar motion. In this sonata the composer shows signs of simplifying his technique, and brief passages of refreshing “Dominant ninth” harmony afford almost the relief of common chords, whilst he shows a stronger leaning towards the triad formations.

His Seventh
Sonata.

Ex.162.

Allegro.

SCRIABINE, 7th Sonata.

Musical score for Ex. 162, Scriabine's 7th Sonata. The score is in G major (one sharp) and 3/4 time. It features a complex harmonic texture with dense chords in the right hand and more melodic lines in the left hand. Dynamics range from fortissimo (f) to pianissimo (pp). There are trills and triplets indicated. The piece ends with "etc."

Ex.163.

(From the same.)

Musical score for Ex. 163, from the same piece as Ex. 162. The score is in 3/4 time and shows a progression of chords with dynamic markings of piano (p), crescendo (cresc.), and fortissimo (f). The texture is dense with many notes per chord. It ends with "etc."

It is interesting to notice that quite apart from the natural foundation, which Scriabine himself states as his theory, much, if not all, of his harmony may be explained by the theory of added and altered notes, expounded in Chapter VII., and when it is thus simplified, the music appears fairly normal. This suggests the possible absorption of his chords into the general practice. This may easily be done by treating the stronger notes as *appoggiaturas*, and resolving them whilst the rest of the harmony remains.

* * * * *

To return from the natural fundamental system of deriving new scales to empirical methods, it is interesting to find so eminent an authority as M. Ferruccio Busoni prophesying the establishment of a scale of eighteen notes, *i.e.*, seventeen divisions. Those Europeans who have heard the Indian

Vina well played and expounded feel what barbarians we are ; and this fact may point to a much further development of aural discrimination amongst ourselves. Here is a brief exposition of Busoni's new system :

Proposed Division of Octave.

A Possible Notation:-

instead of -

CHAPTER VII

ALTERED NOTES AND ADDED NOTES

IN the older method the chromatic scale is not a mode, but an alteration of the major or minor scale, as the case may be.

The Chromatic Scale is not a Mode. Thus the minor second is an inflected Supertonic, the augmented fourth a raised Subdominant, and so on—that is, so far as chromatic notes and chords go. In this fact lies the explanation of all the chromatic harmony on the older lines. As a most convenient method for analysis and explanation, there is much to recommend it, for the simplest explanations are always preferable. Nothing has called forth so much well-deserved wrath from composers as the attempt of theorists to foist some subtle explanation on to their chords.

If the theory of “altered notes” be allowed to run on one of **Four Applications.** four paths, there is little which cannot be explained by it. A chord may have one or more chromatically altered notes, and the four applications produce—

- (a) Passing chords resolved simply.
- (b) Passing chords resolved freely.
- (c) These chords attacked freely.
- (d) “Escaped” notes or chords.

Those at (a) result from single passing notes, or from a combination of two or more passing notes, and depend chiefly on the *tempo* and relative accentuation as to whether they are heard as chords or passing notes. In all probability nearly all the new chords were discovered in this way. Certainly this was the case with the early discord of the seventh.

The chords in the second class are approached as passing notes or passing chords, and are quitted as chords on their own responsibility.

The third class attacks these chords freely, and resolves them according to an agreeable or significant leading of the parts.

A fourth class neither prepares nor resolves them, and under this category perhaps come the "escaped chords," those cleverly arranged strange "resultants" heard in the more highly coloured harmonic web of Ravel and Florent Schmidt, of Strauss and Stravinsky.

The first class—passing chords—need little explanation beyond saying that in this and in all classes, any one, or all of the notes, may be chromatically altered upwards or downwards. As passing chords the upward inflections will resolve by rising, the lowered by falling—that is, they will continue to move in their natural course.

Passing
Chords.

The fifth or the third (or both) of a common chord may be thus treated. The same modifications may be meted out to the chords of the seventh, of the ninth, eleventh, and thirteenth.

TABLE OF
ALTERED NOTES IN COMMON CHORDS.

Ex. 164.

I IV I VI I^b IV I[♯] VI etc.

V IV V II II V II V etc.

II IV[♯] II I^b or etc.

Ex.165.

ALTERED NOTES IN CHORDS OF 7th, etc.

The musical notation for Ex. 165 consists of two systems of piano accompaniment. The first system contains five measures, and the second system contains four measures. The notation is written for piano, with treble and bass staves. The first system ends with the word "etc." in the final measure. The chords and notes are as follows:

System	Measure	Treble Staff	Bass Staff
1	1	G4, A4, B4, C5	F2, C3, G2, C3
	2	G4, A4, B4, C5	F2, C3, G2, C3
	3	G4, A4, B4, C5	F2, C3, G2, C3
	4	G4, A4, B4, C5	F2, C3, G2, C3
	5	G4, A4, B4, C5	F2, C3, G2, C3
2	1	G4, A4, B4, C5	F2, C3, G2, C3
	2	G4, A4, B4, C5	F2, C3, G2, C3
	3	G4, A4, B4, C5	F2, C3, G2, C3
	4	G4, A4, B4, C5	F2, C3, G2, C3

The second class attacks these altered chords without preparations, but still resolves them in the most natural way according to the original diatonic formation. It is noteworthy that many of the characteristic chords of the augmented triad, the diminished seventh and Neapolitan sixth, the Dorian sixth chord, the so-called "minor thirteenth," etc., may be explained most simply thus:—

Ex.166.

The musical notation for Ex. 166 consists of piano accompaniment with treble and bass staves. The notation is as follows:

Measure	Treble Staff	Bass Staff
1	G4, A4, B4, C5	F2, C3, G2, C3
2	G4, A4, B4, C5	F2, C3, G2, C3
3	G4, A4, B4, C5	F2, C3, G2, C3
4	G4, A4, B4, C5	F2, C3, G2, C3

All this leads up to the modern practice of taking a chromatically altered chord, with or without preparation, and resolving it freely. Once established, the altered chord immediately "becomes of age," and acts "on its own rights." As these rights are analyzed in detail in Chapter IX. on Resolutions, a few examples will suffice here.



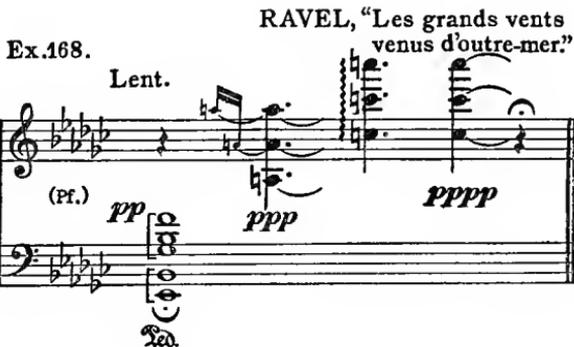
Or the resolution may be suspended over a long chain of apparently alien chords, the last of which resolves satisfactorily.

Ex.167.



The “escaped” chords, which appear mostly in the chromatic forms, are dealt with in Chapter XII. They are neither “prepared” nor “resolved” in the conventional sense of the term, but are allowed to “evaporate.” They are not chords in themselves, but only additions to the normal harmony.

“Escaped”
Chords.



Ex.168.

RAVEL, “Les grands vents
venus d’outre-mer.”

Lent.

(Pf.)

pp

ppp

pppp

The principle of adding notes to the simple chords is one of the most ancient usages. The third inversion of the so-called "chord of the eleventh" is thus accounted for, as its now more common designation, the "added sixth," implies. These chords doubtless owe their origin to sounding the principal note together with the passing note, but they have now reached a stage of development far distant from this simple beginning. The Beethoven extract shows how these "added note" chords may have been suggested through the pursuance of imitation, whilst the two Wagner passages show clearly how some of the newer chord-formations came into being.

Ex.169.

Allegretto. ($\text{♩} = 76.$)

BEETHOVEN, 7th Symphony.

(Scheme)

Ex. 170.

Rhine-Maidens-

WAGNER, "Rheingold."

p

Ha ha ha ha ha ha

> Str. (W.W. sustain)

Ex.171.

Schnell.

Alberich.

WAGNER, "Rheingold."

(Min. F.S. p.95.)

mighty, lash me to mad-ness.

W.W. & Hns.

(Str.)

7 7 7 7

Detailed description: This musical score is for a piano accompaniment of Wagner's 'Rheingold'. It features a bass line with a vocal melody and a piano accompaniment. The key signature is B-flat major (two flats). The tempo is 'Schnell'. The piano part is marked '(Str.)' and includes a dynamic marking 'f'. The score is divided into two measures. The first measure shows the vocal line and a piano accompaniment. The second measure shows the vocal line and a piano accompaniment with a dynamic marking 'f'. Below the piano part, there are four '7' characters.

They are not always prepared for in this way, and may resolve with the natural or the freer progressions; or they may form part of a purely *timbre*-creating combination, and merely "evaporate," as is the case with the "escaped chords."

Ex.172.

MAC-DOWELL,

"To a waterlily."

Con molto sonnolente.

(Scheme)

(Pf.) p

pp * pp

Detailed description: This musical score is for a piano piece by MacDowell titled 'To a waterlily'. It is marked 'Con molto sonnolente'. The key signature is D major (two sharps). The score is divided into three measures. The first measure shows a piano accompaniment with a dynamic marking 'p'. The second measure shows a piano accompaniment with a dynamic marking 'pp'. The third measure shows a piano accompaniment with a dynamic marking 'pp'. Below the piano part, there are three 'pp' characters with an asterisk between the first and second.

Ex.173.

KARG-ELERT,
Pastel. Op.92, N°3.

Grave.

(Org.) fff lunga

Tri Pedali

Detailed description: This musical score is for a piano piece by Karg-Elert titled 'Pastel Op. 92, No. 3'. It is marked 'Grave'. The key signature is D major (two sharps). The score is divided into two measures. The first measure shows a piano accompaniment with a dynamic marking 'fff'. The second measure shows a piano accompaniment with a dynamic marking 'lunga'. Below the piano part, there are two 'Tri Pedali' characters.

Many passages in Strauss and Reger seem to prove that a Dominant or a Tonic may be added to any combination in the key, and the device of adding to the piquancy, or increasing the colour of chords by altering or adding notes, is now very common. In this connection the transformation of Wagner's "Rheingold" themes are particularly interesting.

Ex.174. STRAUSS,
"Till Eulenspiegel."

Musical score for Ex. 174, Strauss "Till Eulenspiegel." The score is for piano (Orch.) and is marked *ff*. It features a treble and bass clef with a 3/8 time signature. The key signature has one flat (B-flat). The music consists of a few notes in the treble and bass staves, with a large '8' written below the bass staff.

Ex.175.

Allegro leggiero.

J. HOLBROOKE,
"Acrobats" Op.2, N^o4.

Musical score for Ex. 175, J. Holbrooke "Acrobats" Op.2, N^o4. The score is for piano (Pf.) and is marked *p dim.*. It features a treble and bass clef with a 2/4 time signature. The key signature has two sharps (F# and C#). The music consists of a few notes in the treble and bass staves, with a large 'p.' written below the bass staff.

Ex.176.

Modéré, très franc. $\text{♩} = 176.$

RAVEL, "Valse Nobles." N^o 1.

(Scheme)

Musical score for Ex. 176, Ravel "Valse Nobles" N^o 1. The score is for piano (Pf.) and is marked *f*. It features a treble and bass clef with a 3/4 time signature. The key signature has two sharps (F# and C#). The music consists of a few notes in the treble and bass staves, with a large 'f' written below the bass staff.

Ex.177.

LANDON RONALD,
Pensée Musicale.

Andante.

(Pf.) *p* *dim.*

Ped. * Ped. *

Ex.178.

WAGNER, Götterdämmerung.

Further, these “added note” chords may be subject to chromatic alterations, partial or total; and this is frequently a more effective way of dealing with the five forms of the “augmented sixth” chords than the “tonal” explanation, as the combinations at (d) and (f) cannot be called “tonal” chords.

Ex.179.

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

(Scheme)

Chromatic alterations may be applied also to the newer chords formed by fourths and fifths, equal or unequal, and also to the “mixed” structures; and the device of *appoggiaturas* is applied to these chords quite as freely as to the simple and diatonic forms. More fundamentally still, this practice of chromatic alteration may be applied to those

diatonic structures of thirds for chord and scale-formation which are used by the ultra-modern composers in the "harmonic studies" mentioned in Chapter XI.



Owing to the enharmonic nature of the equal temperamental tuning, the alteration is frequently something more subtle than all this, and consists in the alteration of the view taken of it by the addition and substitution of extra notes, which put the chord into a different context. We cannot ignore the enharmonic view, as otherwise the theory and practice of all chords constructed on a system of perfectly equal intervals works round in a vicious circle. The equal system produces many interesting results, but the use of the discoveries on the "reflection" lines in reality entails the annihilation of all the processes of chord inversion. The enharmonic method alone supplies the outlet. It is applicable to all equal chords—diminished sevenths, augmented triads, perfect fourth chords, perfect fifths, and the "tonal" formations.

A hitherto unsuspected advantage has been taken of the chameleon-like nature of these equally divided chords. Whatever the notation of the chord of the diminished seventh may be, composers of the Strauss, Schönberg, and Stravinsky order claim the right of changing any of the four supposed "generators" at will. They apparently waive aside all temperamental questions, evidently accepting the equal tuning as being sufficiently near to the natural series. The device produces some startling treatments of the "minor ninth" formation:—

Ex.180.

(Enharmony.)

thus



Does the mind view the sustained chord kaleidoscopically, or accept the equal tuning once and for all? The recent return by Strauss and others to the Dominant generator theory for this chord, supplying possible generators in succession, tests this theory almost to breaking-point.

In the "prepared" manner the sounding of the various roots in the bass is somewhat analogous to the method used with the sounding of simple "escaped" notes in the upper register. But they are taken unprepared and in a connected manner in Arnold Schönberg's compositions. The sequential progression of the bass in minor thirds (or augmented seconds) is of common occurrence in Wagner, Strauss, and Bantock, and belongs to the duodecuple or "twelve-note" scale technique, but the following treatment is somewhat novel:—

Ex.181.
Poco lento.

mp e lusingando

pp Red.* Red.* Red.* Red.* *

The *arpeggio* treatment is almost revolutionary, and the passing-note system may be constructed on four distinct scales, thus:—

Ex.182.

Ex.183.

Ex. 183 consists of two systems of piano music. The first system has two measures. The treble clef part has a 2/4 time signature and a key signature of one flat (B-flat). The bass clef part has a 2/4 time signature and a key signature of one flat (B-flat). The second system has three measures. The treble clef part has a 2/4 time signature and a key signature of one flat (B-flat). The bass clef part has a 2/4 time signature and a key signature of one flat (B-flat).

Ex.184.

Ex. 184 consists of a single system of piano music. The treble clef part has a 4/4 time signature and a key signature of one sharp (F-sharp). The bass clef part has a 4/4 time signature and a key signature of one sharp (F-sharp). The music is divided into two parts labeled (a) and (b).

The older practice admitted the chromatic alteration of a chain of passing notes either singly or doubly in the following manner:—

Ex.185.

Ex. 185 consists of two systems of piano music. The first system is labeled "Alteration" and the second system is labeled "(Scheme)". Both systems have a treble clef and a 4/4 time signature. The key signature is one sharp (F-sharp).

The modern composers "touch up" their passages by chromatic alterations in any way which suits their fancy (see Examples 134, 135, and 136).

In applying all the alterations and additions, with the exception of the "enharmony" practices, the original chord formation or the foundation diatonic scheme should always be borne in mind, the main objects of all these devices being the securing either of increased variety and power in modulation, or of ever richer harmonic colouring.

CHAPTER VIII

NEW METHODS OF CHORD-STRUCTURE

THE modern methods of chord-building differ from the older practices in five respects :—

1. The wider adoption of empirical methods in chord-structure by thirds.
2. The inclusion of the root in the inversions of the ninth, of the third in the eleventh, and of the fifth in the thirteenth.
3. The admission of formations by entire series of intervals equal in quality.
4. The admission of structures of unequal fourths, fifths, etc.
5. The admission of structures composed of mixed intervals, seconds, thirds, and fourths.

One of two chief principles must form the basis of both the new and the older practices of chord-building. They must be founded on either—

- (a) the natural harmonic series, or
- (b) the empirical method.

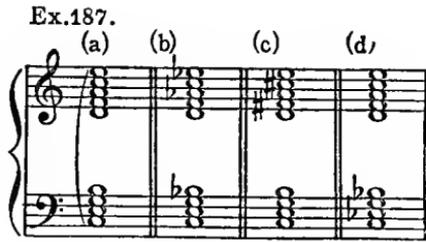
The first relates every note to the lowest one, which is called the generator or prime, and follows the natural series of "harmonics" given off by a string or an open pipe.

The Two
Great
Principles.

Ex.186.



The second merely piles up a superstructure of thirds, or of fourths or fifths, or even seconds, without any reference to a scientific or natural basis.



Whether we take the simple common chord or an extended discord, the two views are still compatible. Thus, whilst one theorist will derive the major triad from the harmonic series, the other will call it simply a method of chord-building by the superposition of the two thirds and a fourth, just as (b) and (c) may be explained as a variation of the position of the fourth.

Ex.188.



The explanation of the genesis of the minor chord by the first school, although rather far-fetched, is worthy of mention on account of its ingenuity. The system is called "inferior resonance," and is worked downwards from a note produced by the sixth part of any given string. Thus, if the sixth part gives *e'*, double this length will give *e'*, triple the length, A; quadrupling, E; quintupling, C; and sextupling, AA.

Ex.189.



Whichever view of the origin of the triad the student takes (and it is immaterial to the practice of composition),

No a grateful acceptance of both views seems advisable
 Exclusive when we come to the question of discords. The
 Adoption of One "natural" explanation of a Dominant root might
 System. serve for the first chord in such passages as the
 following, but what are we to say of the chords at (b) and (c)?

Ex.190.

BEETHOVEN,
"Waldstein" Sonata.

Apparently no composer adopts one view exclusively, nor is it purely a question of medium, vocal or instrumental, for Beethoven writes for orchestra and pianoforte similarly in this respect, and that strongly contrapuntal composer, Samuel Sebastian Wesley, owes one of his most beautiful chords to the natural series.

Ex.191.

Slow. WESLEY,
The Wilderness.

B.T.1.2.A. "Sigh - ing"

This dual view of harmony seems to be ever present in composers' minds, and the resources of the art are wonderfully enriched in consequence.

(a) CHORD STRUCTURE BY EQUAL INTERVALS OF UNEVEN QUALITY.

With both temperaments, however, it is necessary to notice the important rôle played hitherto by the *unequal* quality of the thirds of the superstructure, a regular alternation of major and minor being preferred in the main. This adds great character and charm to the combinations, and the vast preponderance of this principle causes the structure by *equal* intervals of the same quality to be of little account in comparison.

The empirical method admits of six forms of the chord of the seventh, and ten forms of the ninth.

Ex.192.

Ex.193.

Of course not all are equally good, and many are exceedingly difficult to work in the inversions. It is noteworthy, however, that the acceptableness of the root in the inversions is entirely dependent on the judicious distribution of parts. The series may be extended to the eleventh and thirteenth, and all the alterations may apply with equal force. Example 194 shows the appearance of the root, together with the ninth, in the third inversion of a thirteenth on the Dominant.

**Inversions
of the
Ninth.**

Ex.194. BUTTERWORTH,
"Shropshire Lad" Rhapsody

Largamente.

(Orch.) *ff* etc.

* *

We have already shown in Chapter II. the greater freedom used in applying the harmonic series to any note of the scale. The "empirical" method is just as widely applicable.

If we regard the triads—the "five-three's," the "six-three's," and the "six-four's"—as so many ways of dividing an octave into three parts, we may consider these more extensive series of thirds as methods of dividing the double octave. The Debussy and Ravel examples exemplify the application of the diatonic type shown in Example 195 (a).

Ex.195. (a) (b) (c) (d)

etc.

Ex.196. RAVEL, "Valse notes."

ff (later) *ff*

Ex.197. DEBUSSY,
"Pelléas."
Animé.

A moment's thought will show us that such a structure not only supplies the whole of the diatonic scale, but contains in itself every chord of the whole of the diatonic system on which the chord is founded, and in using this method we may draw melody, intervals, and chords of three, four, five, six, or seven notes from such a series. Every possible diatonic concord or discord may be found therein, and their use is justified by a rational cohesion with the next combination, or the achievement of the desired effect.

(b) CHORD STRUCTURES BY EQUAL INTERVALS OF THE SAME QUALITY.

Three such structures belong to the older practice—the diminished and augmented triads, and the chord of the diminished seventh. The first consists of two minor thirds, one above the other; the second, of two major thirds; whilst the third chord is a structure of three minor thirds, notwithstanding the fact that one is often written as an augmented second.

Inasmuch as such equal structures as the diminished seventh divide the octave into exactly equal divisions, their application is limited. Thus we can obtain only three different diminished sevenths, four chords of the augmented fifth, and only two complete "tonal" series; for the adoption of the equal temperamental tuning causes the other variously "noted" forms to be identical in reality with these primary forms. Thus in Example 198 (*d*) is identical with (*a*); (*e*) with (*b*); and so on.

Ex.198.

(a) (b) (c) (d) (e) etc.

Herein, however, lies their chief charm and power. This coincidence and consequent indifference to notation gives them a most wonderful scope as a means of modulation. Any one of these chords will easily lead into any of the other eleven keys. They absorb colour by reflection both from the preceding and the following chords, and the chief charm of a modulation should be the getting there, and not the arrival itself. Their possibilities in this direction seem inexhaustible. The chord at (a) in the following example may lead to A major or minor, the one at (b) to D, (c) to G, and so on.

Ex.199.

(a) (b) (c) (d) (e)

The following table shows the scheme of the newer structures by fourths and fifths, the application of which is exemplified in the extracts from Beethoven, Wagner, Ravel, and Schönberg. In the Rébikoff piece we see an extreme Impressionistic use of a sky-scraper of fourths.

Ex.200.

Min.3rds. Maj.3rds. Perf.4ths. Perf.5ths. Aug.5ths. Maj.2nds.

Ex.201.

BEETHOVEN, "Pastoral Symphony."

Andantino.

Musical score for Ex. 201, showing Horn and String parts from Beethoven's "Pastoral Symphony." The score is in 3/4 time and features a key signature of one flat (B-flat). The Horn part is in the upper staff, and the String part is in the lower staff. The Horn part includes markings for Vns. I., Vns. II., and (Scheme). The String part includes the marking (Str.).

Ex.202.

WAGNER, "Tristan" Act II.

Molto vivace.

Musical score for Ex. 202, showing Horns and Piano parts from Wagner's "Tristan" Act II. The score is in 4/4 time and features a key signature of two flats (B-flat and E-flat). The Horns part is in the upper staff, and the Piano part is in the lower staff. The Horns part includes markings for f, 3, and (Scheme). The Piano part includes the marking p.

Ex.203.

SCHÖNBERG,

"Pelleas und Melisande."

Musical score for Ex. 203, showing piano accompaniment from Schönberg's "Pelleas und Melisande." The score is in 3/4 time and features a key signature of two sharps (F# and C#).

Ex.204.

Musical score for Ex. 204, showing piano accompaniment from Rébikoff's "Feuille d'Album." The score is in 2/2 time and features a key signature of two sharps (F# and C#).

Ex.205.

RÉBIKOFF,
"Feuille d'Album."

Musical score for Ex. 205, showing piano accompaniment from Rébikoff's "Feuille d'Album." The score is in 3/4 time and features a key signature of two sharps (F# and C#).

(c) MIXED STRUCTURES.

This is by far the largest class amongst the newer chords, and it is noteworthy that the "major second" figures very prominently in them. Often it is used with the sole object of gaining a greater sonority, a quality as eagerly sought in the softer sound-textures as in the loud passages, as shown in Examples 209 and 212. The modern "cult of the semitone" is accounted for frequently in the same way.

Ex.206.

Danse de l'acier.

F.SCHMITT,

"La Tragédie de Salomé."

mp

Ex.207.

Largamente.

BANTOCK,

"Christ in the Wilderness."

(Chorus) *f* *cresc.* *ff*

And shall be sa - tis - fied.

Ex.208.

Gollywog's
Cake Walk

DEBUSSY,

"Children's Corner."

p *f* *etc.*

Ex.209. Sans hâte et noblement. RAVEL, "Histoires naturelles."

Musical score for piano (Pf.) in 4/4 time, marked *mp* and *mf*. The score features complex chordal textures and melodic lines in both hands, with dynamic markings *mp* and *mf*.

Ex.210. YORK BOWEN, Allegretto. 2nd Suite.

Musical score for piano in 4/4 time, marked *Allegretto*. The score shows a melodic line in the right hand and a more rhythmic accompaniment in the left hand, with a *leg.* marking and an asterisk symbol.

Ex.211. STRAVINSKY, "L'oiseau de feu." Presto.

Musical score for orchestra in 3/4 time, marked *Presto*. The score is divided into two parts: the left part for *Str. W.W. Harps* and the right part for *Tpts. Ob. Fl.*. Below the score, it is noted *3 Tbn & Tuba*.

Ex.212. RAVEL, Valses nobles. N° 6. Vif. $d=100$.

Musical score for piano (Pf.) in 3/4 time, marked *pp*. The score features a delicate melodic line in the right hand and a simple accompaniment in the left hand, with the word *etc.* at the end.

Other chords are not so self-possessed in character. Horizontal methods account for the following examples; and although Schönberg in his "Fünf Orchesterstücke," Op. 16, appears to found his unusual chords on the lowest note, many people will long persist in hearing them in various planes.

Ex. 213. **MOZART,**
Allegro molto. G minor Symphony.
(Scheme)

(w.w.) * (Str.) (w.w.) *

a) b)

Ex. 214. **WAGNER, "Siegfried."**

Mässig.
C.A.

Clar.

Fag. & B.Cl. *

Ex. 215.

W.G. ALCOCK,
Andantino maestoso. The Duchess of Fife's March.

Org. *ff*

Ex.216. STRAUSS,
"Till Eulenspiegel!"



Ex.217. Pas trop lent. M.RAVEL, Miroirs N°1



M. Anselme Vinée in his treatise gives this table:

Ex.218.



Appoggiatura elaboration will explain the Wagner, Mac-kenzie and Saint-Saëns extracts, whilst a double *appoggiatura* treatment will account for Mrs. Beach's chords in Example 222.

Ex.219. WAGNER, "Tristan."
A. B. (Scheme)



Ex. 220. MACKENZIE, Four Songs, Op. 79a.
Andante semplice.

Musical score for Ex. 220, Mackenzie's "Four Songs, Op. 79a". The piece is in 6/8 time, marked "Andante semplice". The score is for piano (Pf.) and consists of two systems. The first system shows the right hand playing a melody with a dynamic marking of *mf* and the left hand playing a bass line with a dynamic marking of *p*. A fermata is placed over the final notes of both hands. A small asterisk (*) is located below the first measure of the left hand.

Ex. 221 SAINT-SAENS,
"Déjanire."

Musical score for Ex. 221, Saint-Saens' "Déjanire". The piece is in 4/4 time. The score is for piano (Pf.) and consists of two systems. The first system shows the right hand playing a melody with a dynamic marking of *mf* and the left hand playing a bass line with a dynamic marking of *p*. A fermata is placed over the final notes of both hands. A small asterisk (*) is located below the first measure of the right hand.

Ex. 222. H. H. A. BEACH,
"The Sea-fairies," Op. 59.
Adagio.

Musical score for Ex. 222, H.H.A. Beach's "The Sea-fairies, Op. 59". The piece is in 4/4 time, marked "Adagio". The score is for piano (Pf.) and consists of two systems. The first system shows the right hand playing a melody with a dynamic marking of *mf* and the left hand playing a bass line with a dynamic marking of *p*. A fermata is placed over the final notes of both hands. The second system shows the right hand playing a melody with a dynamic marking of *mf* and the left hand playing a bass line with a dynamic marking of *p*. A fermata is placed over the final notes of both hands. The word "etc." is written at the end of the second system.

The Karg-Elert and the Corder chords may be but versions of the dominant seventh, whilst the chord in Example 225 is reported by Gevaert to be a popular "vamping" form with the unsophisticated Spanish guitarists.

Ex. 223.

Ex. 224.

P. CORDER,
"Transmutations" N^o 4.

Ex. 225.

segue simili

Traditional.

In the "reflection" table, Example 226, any of the chords in the upper staff may be added to the corresponding ones in lower staves, provided the pitch is very widely spaced.

Ex. 226.

It is not often such constituents are brought together as in the Strauss Example (227), where they can hardly be expected to mix, and the chord will probably be heard in two separate auditory planes.

Ex. 227. STRAUSS, "Elektra."

sfa p

But for sheer modernity and daring, the chord in Beethoven, which contains every note in the scale of D minor, still reigns supreme.

Ex. 228 BEETHOVEN,
Finale 9th Symphony.
(Scheme)

Presto.

(Orch.)

ff

CHAPTER IX

ON RESOLUTIONS, ELISIONS, AND CADENCES

THE resolution of a discord is a means of satisfying the musical intelligence. The most usual way is by the most natural horizontal leading of the parts which cause the dissonance. This elementary rule, however, has brought about certain stereotyped forms and banal platitudes, the desire to avoid which led to the discovery of two distinct lines of escape—(a) a less rigorous leading of the parts, and (b) the adoption of other methods of resolution.

**Resolution
in General.**

As we have printed on the flyleaf of this volume, *the relation of quantities is the principle of all things*, and, with the higher discords, some of the lower dissonances may well be regarded as free in comparison with their more assertive upper partials. Further, if the two notes, or even only one of these, which form the keenest dissonance in any combination be followed in a satisfying manner, the others, whether dissonant or consonant, may be regarded as free.

**The
Liberation
of Certain
Notes.**

As we have printed on the flyleaf of this volume, *the relation of quantities is the principle of all things*, and, with the higher discords, some of the lower dissonances may well be regarded as free in comparison with their more assertive upper partials. Further, if the two notes, or even only one of these, which form the keenest dissonance in any combination be followed in a satisfying manner, the others, whether dissonant or consonant, may be regarded as free.

**The
Procedure
of Other
Notes.**

As we have printed on the flyleaf of this volume, *the relation of quantities is the principle of all things*, and, with the higher discords, some of the lower dissonances may well be regarded as free in comparison with their more assertive upper partials. Further, if the two notes, or even only one of these, which form the keenest dissonance in any combination be followed in a satisfying manner, the others, whether dissonant or consonant, may be regarded as free.

The resolution of the chosen note may be—

- (a) by fall of a second,
- (b) by remaining pedal-wise, or
- (c) by rising chromatically.

The dissonant note may be transferred to another part, or frequently the choice of part, or pitch, for its appearance is immaterial, so long as the resolution chord contains the note it demands. In Example 229 the B flat, a part of the augmented sixth chord, leaps in an unrestricted manner to the F in the second bar. In the Wagnerian motives, only some of the dissonant notes resolve, whilst others proceed freely. The Tschaikowsky and Reger method is endorsed by the Parry extract (Example 24). The rule might run :—“ Any discord is allowed to jump summarily

to the tonic harmony." This procedure is endorsed by the "elision" principles mentioned later.

Ex.229.

Moderato

MOSZKOWSKI,

"Prélude et Fugue" for Strings.

Celli I. *cantabile*

(Orch) V.II. *p*

Celli II.

Ex. 230.

WAGNER,

"Götterdämmerung" Act III.

a)

(4 Tbnl.) *p* ————— *pp*

b)

(Str.) *p*

Ex.231.

Allegretto vivo.

TSCHAIKOWSKY, Third Quartet.

p

Ex.232.

REGER, Op.80, No.6.

In the MacDowell extract, the highest note of the discord in bar two virtually resolves on the E in bar three, whilst the resolution of the D flat in the Strauss viola part is given to the 'cellos and double basses. In modern suspensions the harmony frequently *changes* on the resolution note, a course subversive to the principle of the older suspensions. In Example 235 we see a very poetic case of suspended resolution from T. F. Dunhill's fine Phantasy-Trio for pianoforte, violin, and 'cello. Another device is the alteration of one of the notes in changing to another position of the same chord (see Example 236).

Ex.233.

Semplice.

MAC-DOWELL,
Wald-Idyllen. Op.51, N^o1.

Ex.234.

Langsam.

STRAUSS, "Ein Heldenleben."

Ex. 235. Presto scherzando. T. F. DUNHILL, Phantasy Trio, Op. 36.

Musical score for Ex. 235, featuring piano (p) and violin (Vn.) parts. The piano part includes dynamic markings *(Pf.) p*, *sf*, and *pp*. The violin part is marked *Vn.*

Ex. 236. Gemächlich. STRAUSS, "Till Eulenspiegel."

Musical score for Ex. 236, featuring piano and violin parts. The piano part is marked *p espress.*

Any discord may resolve by returning to the "approach" chord. This is a very frequent formula with the modern harmonists from Wagner onwards. If the discord be a chromatically altered chord, the process is even clearer. Any clearly expressed design or sequence, or any obvious intention which serves the composer's expression, is sufficiently convincing to dispense with any need of resolution on the part of a discord. We have said that any discord may return to the chord which preceded it, and when the second chord recurs, as at the "Magic Helm" *motiv*, the chord at (a) may be almost anything. If the phrase clearly ends on a discord, the mere repetition of it, as in Elgar's "Angel" theme in "Gerontius" dismisses any resolving propensities. In the Scriabine example, the repetition is not quite so exact, but the same principle is perceived.

Ex. 237. (a) Ziemlich langsam. WAGNER, "The Ring." (b) Modéré. DEBUSSY, "Pelléas," p. 143.

Musical score for Ex. 237, featuring piano and orchestra parts. The piano part is marked *Muted Horns p*. The orchestra part is marked *(Orch.)*. The score is divided into two sections: (a) *Ziemlich langsam* and (b) *Modéré*.

Ex. 238.

Andantino.

ELGAR, "Gerontius."

Musical score for Ex. 238, Elgar's "Gerontius." The score is in 3/8 time and consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has three flats (B-flat, E-flat, A-flat). The tempo is marked "Andantino." and the dynamics are "Str. p". There are two circled numbers, 1 and 2, above the first and second measures of the upper staff, respectively, indicating specific points of interest.

Ex. 239.

Lugubre.

SCRIABINE,
Prélude, Op. 51, No. 2.

Musical score for Ex. 239, Scriabine's "Prélude, Op. 51, No. 2." The score is in 6/8 time and consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has one flat (B-flat). The tempo is marked "Lugubre." and the dynamics are "pp sotto voce". There are two circled numbers, 1 and 2, below the first and second measures of the lower staff, respectively, indicating specific points of interest.

With the ever-increasing spread of musical appreciation, certain chordal passages tend to become too trite and commonplace. It is as though someone breaks in upon a well-sustained conversational rally by some banal remark about the weather. Consequently the composer counts on taking many of these chordal steps for granted, and effects an *elision*. One of the commonest applications of this occurs in the familiar "Pathetic Cadence," where the natural chord after the "Neapolitan sixth" is frequently omitted without any "false relation" being felt. Many less usual resolutions may be derived and regarded in this way. The Bridge example 241*b* and the extracts Nos. 231 and 232 may be explained in the same way as the Beethoven Example (242), where, in approaching the return of his first **A Beethoven** subject, the composer was so carried along by the **Example.** impetuosity of the movement that he missed his Dominant chord entirely, and *took it for granted*.

Ex.240. *Allegro moderato.* ELGAR, "Gerontius."

(Orch.) *f* * * *dim.*

Ex.241. (a) perhaps

(b) perhaps

(c) perhaps

Ex.242. *Prestissimo.* BEETHOVEN, E minor Pf. Sonata

(a) (b)

pp *ff*

Naturally these elisions cluster most round the set
 Relieving the Cadences. As regards middle cadences, and often
 the final ones, the matter of accent plays an important
 part. Composers seem to have made a dead set
 against the so-called "masculine" cadences, and are now
 favouring largely the "feminine" endings, which allow the
 final Tonic chord to fall on any of weaker beats.
 Feminine Endings. This trait may be studied in Brahms, Reger, and
 Ravel, and is exemplified in the Tschaiowsky and
 Reger extracts, Examples 231 and 232.

* * * * *

But the most modern way is to leave discords to *evaporate*. **Evapora- tion.** This may apply to all pauses and breaks in the music, but is cultivated specially in the final chord of a piece. The modern composer takes Shakespeare at his word,

“The music at the close is sweetest last,
Write in remembrance more than things long past . . .”

and bestows endless pains on the obtaining of a beautiful *timbre* for his final chord, which may float away deliciously on the undamped chords of a drawing-room piano, or ring out from the orchestra and chorus in startling *fortissimo*, awakening the full echoes of some vast auditorium, or die away vaguely with a question on its lips, as in the delicious Schumann song, “Im wunderschönen Monat Mai.”

Ex.243. Andante. SCHUMANN, “In May”

Musical score for Ex. 243, Schumann's "In May". The score is in G major, 2/4 time, and marked "Andante". It features a piano accompaniment with a treble and bass clef. The melody in the treble clef is characterized by a series of eighth and sixteenth notes, with a long, sweeping line that spans across the measures. The bass line provides a steady accompaniment. Performance markings include "fa tempo", "dim", "rit", and "morendo". The piece concludes with a final chord marked with a "Seq." and an asterisk.

Ex.244. Moderato. CHOPIN, Prelude in F, Op.28, No. 23.

Musical score for Ex. 244, Chopin's Prelude in F, Op. 28, No. 23. The score is in F major, 4/4 time, and marked "Moderato". It features a piano accompaniment with a treble and bass clef. The melody in the treble clef is characterized by a series of eighth and sixteenth notes, with a long, sweeping line that spans across the measures. The bass line provides a steady accompaniment. Performance markings include "(Pf.) pp" and "smorz.". The piece concludes with a final chord marked with a "Seq." and an asterisk.

Ex. 245.

BANTOCK, "Sappho."

rall. molto

love thee, — dare I but love thee.

Orch *p* *piu p* *dim.* *ppp*

Ex. 246

RAVEL, "Asie"

ppp

pppp

In the following Beethoven extract we have apparently a free treatment of the passing note D flat in the first violin part. The G sharp in Example 247b, too, is treated in a similar fashion.

Ex. 247.

BEETHOVEN,
String Quartet, N^o 7.

(a) *Adagio.*

p

FLOTOW,

Overture to "Martha"

(b) *Vivace.*

(Cl. Fl. Picc.) *

p

The "harmonic studies" and pieces written on "enharmony" principles come under a similar category. They are written round a certain combination, and their endings are derived from the foundation chord of the piece.

Ex.248. SCRIABINE, Op.57.
Andantino.

Musical score for Ex. 248, Scriabine Op. 57, Andantino. The score is in 12/8 time and features a complex, chromatic texture. The right hand (treble clef) has a melodic line with many accidentals, while the left hand (bass clef) provides a harmonic accompaniment. The piece is marked *(Pf.) p*. The score concludes with a double bar line and a fermata over the final notes, which are marked with a circled '2' and an asterisk.

Ex.249. Op.63.

Musical score for Ex. 249, Op. 63. The score is in 12/8 time and features a complex, chromatic texture. The right hand (treble clef) has a melodic line with many accidentals, while the left hand (bass clef) provides a harmonic accompaniment. The piece is marked *(Pf.) p*. The score concludes with a double bar line and a fermata over the final notes, which are marked with a circled '2' and an asterisk.

Ex.250. Op.56, N°4.

Musical score for Ex. 250, Op. 56, N°4. The score is in 12/8 time and features a complex, chromatic texture. The right hand (treble clef) has a melodic line with many accidentals, while the left hand (bass clef) provides a harmonic accompaniment. The piece is marked *mf*. The score concludes with a double bar line and a fermata over the final notes, which are marked with a circled '2' and an asterisk.

CHAPTER X

IMPRESSIONISTIC METHODS

BEFORE analyzing the harmonic technique of the Impressionist style, it would be well to attempt some definition of the term,—a very difficult one to define. The **Definition of Impressionism.** word Impressionism is applied generally to music in which “mood” and “atmosphere” predominate, frequently compelling form, harmony, and tonality to occupy a secondary place. It is a record of the effect of certain circumstances, facts, or scenes upon the feelings of the composer, whose aim is to transfer this effect to the listener expressed in the terms of the subtlest and most pliable of natural sounds made articulate. Others would define it as the result of the recognition of the true value of natural sounds in relation to all the circumstances surrounding music and its hearers, and a further recognition of the necessity of utilizing those circumstances.

The chief argument is the view taken of chords, as to whether the chord remains a combination of so many notes, or whether it has become a separate entity through such combination. In support of the latter view, the Impressionist will certainly have the poet Browning behind him :—

“ But here is the finger of God, a flash of the will that can,
Existing behind all laws, that made them, and lo ! they are.
And I know not if, save in this, such gift be allowed to man,
That out of three sounds he frame not a fourth sound, *but*
a star.”

But, as we shall see later, the Impressionists do not follow this view in its entirety, although with many of them the application of it is perhaps their chief harmonic device. As Professor Niecks has well said, the thing itself is older than the name. Many passages in Purcell and in Mozart—the introduction to the C major Quartet, for instance—are distinctly Impressionistic

**The
Technique
of the Im-
pressionists.**

in aim, whilst scores of passages in Beethoven—the opening to the Ninth Symphony and the overlappings in “Les Adieux” Sonata, for instance—reveal the foundation of these modern schools. It is difficult—indeed, it seems almost impossible—to draw a line between Impressionistic things and the more formally constructed music.

Still, there is a vast difference between donning the mantle for special occasions and making it one’s regular garment. The reflection of life is the mission of art, and it was but natural that the modern trend of things should discover hitherto unsuspected qualities and new possibilities in the world of sound, as also in the realm of colour. Alike in Debussy, Ravel, and their adherents, as in Manet, Cézanne and their allied schools, we find a wonderful development of one quality, sometimes almost to the exclusion of all the others.

An impression is less definite than a thought. A single chord makes an impression, but it requires a succession of diverse harmonies or notes to convey a distinct idea. “Very well!” says the Impressionist, “if any one combination of notes conveys something of the sensation which I want, if I reproduce that chord on various degrees of the scale I strengthen the impression by such repetition.” Thus we get his chief harmonic device, which consists in similar motion by fifths, by common chords, by discords of the seventh, ninth, eleventh, thirteenth, and so on.

A single perfect fifth exercises a remarkable emotional power over some people. Beethoven recognized this when he penned the opening of the Ninth Symphony, and Wagner tells us in his autobiography what a curiously searching and almost mesmeric effect the mere tuning of a violin exercised over him.

Ex.251.

BEETHOVEN, 9th Symphony.

Allegro ma non troppo. *pp* sotto voce

Str. (Hns. sustained)

The musical score is for the beginning of the Ninth Symphony. It features a piano accompaniment in the lower register with sustained chords and a vocal line in the upper register. The tempo is marked 'Allegro ma non troppo' and the dynamics are 'pp sotto voce'. The piano part consists of a series of chords, with the first two marked with a '6' and the word 'segue' appearing below the third measure. The vocal line begins with a single note in the first measure, followed by a series of notes in the second and third measures.

Ex.254.

KORNGOLD, 2nd. Sonata, Op.2.

Moderato.

(Pf.) *mf* *cresc.* *sfz*

Hitherto the passages have been mostly scalar. The leaps in Korngold's Sonata are very telling in their effect of crude power. The fifths, however, are seldom open, and we shall discuss their further treatment when filled in with the third, or enriched by the seventh and ninth. In Example 255 the leaping fifths are the characteristic feature, as the thirds are alternately major and minor; but the opposite view must be taken when the fifths are in the two lowest parts, when they simply act as a *timbre*-producing factor (see Example 256). The same may be said of Example 257, where the fifths are considerably higher in pitch.

Ex.255.

GROVLEZ, "L'Almanach aux Images."

Vivo.

(Pf.) *p e spiritoso*

Ex.256.

DEBUSSY,

Lento con calma. "La Damoiselle Eluë"

pp molto sostenuto *etc.*

Ex.257. Allegro non troppo.

CHOPIN, Mazurka in C.

Examples 258 and 259 apparently belong to a different category. Here all the notes produce but one chord, as shown in the scheme, and many people would sustain the whole of the passage by the use of the pedal.

Ex.258. Con fuoco. CHOPIN, Nocturne in F, Op.15. (Scheme)

Ex.259. Lento molto tranquillo.

DELIUS, Fünf Lieder, N^o2. (Scheme)

The impression of a common chord may be strengthened by repetition under similar conditions. Sometimes the chords are all major, more rarely all minor, and most frequently mixed.

This device, like the others, is no special patent of the French school, although they are responsible for its extreme development. Example 261 is a passage by Verdi which was written miles away from the influence of the Parisian schools. It is wonderful in its portrayal of Iago's insidious suggestion. The passage from Cyril Scott shows the use of all major chords, whilst in Example 260, the passage from the Ravel Sonatina consists chiefly of *minor common chords*.

Ex. 260.

RAVEL, Sonatina.

Modéré.

(Pf.)

Ex. 261.

VERDI, "Otello."

Be - ware, my no - ble lord of jea - lou - sy!

ppp

Ex. 262.

C. SCOTT, "Jungle Book Impressions,"
(Scheme.) No 5.

Allegro.

(Pf.) *mp* *cresc.*

mf

Such passages are much better when they are not self-supporting, but are accompanied by other points of interest. In other words, the most artistic use of the device is for "outlining" certain parts, as in the following:—

Ex. 263.

Slow and dreamy.

R. BOUGHTON, "Midnight."

(Chorus)

High in its tower in heav'n

(Orch.) *pp*
(Pf. score)

fz *fz*

Successions of first inversions belong to the older technique, but the Poldini extract exemplifies the use of the fifth, scale-wise. Such passages may proceed either diatonically, as in Example 265, or chromatically, as in Example 266, where a curious realistic crick is given to the passage by a perverse note in each of the phrases.

Ex. 264.

Allegro giocoso.

POLDINI, "Zigeuner Novelle," Op. 38, No 3.

(Pf.) *mf*

Ex. 265.

Adagio non troppo.

DOHNÁNYI, 'Cello Sonata.

Musical score for Ex. 265. The top staff is for Cello, marked '(Cello)'. The bottom two staves are for Piano, marked '(Pf.) p'. The music is in 2/4 time with a key signature of three sharps (F#, C#, G#). The Cello part features a melodic line with long, sweeping phrases. The Piano accompaniment consists of rhythmic chords and a bass line with dotted rhythms.

Ex. 266.

Sehr lebhaft.

STRAUSS, "Till Eulenspiegel."

Musical score for Ex. 266. The top staff is for Muted Horns, marked '(Muted Horns) mf'. The bottom two staves are for Piano accompaniment. The music is in 2/4 time with a key signature of two flats (Bb, Eb). The Muted Horns part features a rhythmic, repetitive pattern with accents. The Piano accompaniment provides a harmonic and rhythmic foundation.

The use of successive "six-fours" in Rachmaninoff's song, Example 267, where it is accompanied by a pedal above and a pedal below, is *diatonic*, as is also the case in the Albanesi Sonata.

Ex. 267.

Lento.
(Voice)

p

RACHMANINOFF,
"To the Children," Op. 26, No 7.

Musical score for Ex. 267. The top staff is for Voice, marked '(Voice)'. The bottom two staves are for Piano, marked '(Pf.) p'. The music is in 12/8 time with a key signature of one flat (Bb). The lyrics are: "How oft .en at midnight in days long since fled." The Voice part is a simple, slow melody. The Piano accompaniment features a complex texture with a pedal point above and below the vocal line.

Ex. 268.

Andante. ($\text{♩} = 66.$)

C. ALBANESI, 5th Sonata.

8

mf

rit. *etc.*

In the Debussy "Images," we have a succession of "six-fours" very varied in quality, whilst on the other hand, in the "duodecuple scale" writing of César Franck, **Real versus Diatonic.** we have the reproduction carried out *exactly*, in the accompanying figure, and it should be noticed how well the tonality is held together by the sustained F sharp in the bass (Examples 269 and 270).

Ex. 269.

DEBUSSY, "Images."

Lent.

pp

p

pp

Ex.270. Allegro maestoso.

FRANCK, "Pièce Héroïque."

This method of exact reproduction has led to what the older theorists would call a succession of "dominant sevenths,"

but, as a matter of fact, any of the forms of the seventh chords in Example 271 may be used in this manner. In Examples 272, 273, and 274 we see the

Chords of Seventh.

exact method of reproduction.

Ex. 271.

Ex.272. Tempo di mazurka.

CHOPIN, 21st Mazurka.

Ex.273.

CHOPIN, Prelude in C# minor.

wrongly copied -

Ex. 274.

J. B. M^c EWEN, Elegy

Molto adagio.

(Pf.)

We have a mixed process in the Dupont pianoforte piece, where the "seventh" chords appear in their second inversion. We also see the use of these seventh chords for realistic purposes in Strauss's "Don Quixote," where the reproduction varies in the quality of the intervals.

Ex. 275. G. DUPONT, "La maison dans les dunes."

(Laissez vibrer.)

(Pf.)

ppp

sourdine

Ex. 276.

Schnell.

STRAUSS, "Don Quixote."

ff

Divisi Contra^{tt}
Bassi

etc.

With the "ninth" chords, the variety is still larger (see Example 277). Examples 278 and 279 furnish us with a very fine use of the form at *a*. It should be noted that whilst Franck founded his passage upwards from the bass, Ravel nearly always adopts the downward method. This is a characteristic of the latter composer. The forms at *a* and *b* have undoubtedly the greatest claim as purely *timbre*-creating devices.

Chords of Ninth.

Ex. 277.



Ex. 278.

FRANCK, Symphony.
(Scheme)



Ex. 279.

Larghetto.

RAVEL, "Pavane."

(Scheme)



The use of the inversions of the "ninth" chord is seen in the following example by York-Bowen, where the progression

is also real, the chords apparently being formed upwards from the bass, the opposite process to that of Ravel in Ex. 279.

Ex.280. Allegretto. YORK-BOWEN, 2nd. Suite.
(Scheme)

(Pf.) *mp dolce*
legato

In Example 281, in Rébikoff's psychological drama "Abgrund," which is a full exposition of the Impressionistic use of the so-called fundamental discords, we find the following uses of chords of the eleventh and thirteenth on a chromatic bass, whilst the Wagner extract shows a purely Impressionistic use of the "augmented triad."

Ex.281. RÉBIKOFF, "Abgrund."
(a) Largo. (b)

Orch *p*
mf 3
11ths. 13ths.

Ex.282. WAGNER, "Siegfried."
Mässig bewegt.

ff
Vas. I & II
Celli

More modern chordal construction may be seen in Examples 283, 284, and 285. In the Cyril Scott extract we have the outlining of the melody in fourths (worked downward from the upper note) against an arpeggio of E major (with the added sixth) in the bass. In Ravel we have a gruesome treatment, almost humorously realistic in construction, by fifths in the bass, whilst the Albeniz passage is frankly and purely Impressionistic. Further developments may be seen in Schönberg's Opus 16, where chords built up by two unequal fourths (one augmented, thus producing major sevenths) are repeated in this manner.

**Formations
by Fourths
and by
Fifths.**

Ex.283.

Andante amabile.

C. SCOTT, Poems, No 2.

Ex.284.

Très lent.

RAVEL, Gaspard de la Nuit. "Le Gibet."

Ex.285.

Allegretto.

ALBENIZ, "Yvonne en visite."

The example by Stravinsky is exceedingly interesting, as it presents Impressionistic treatment of three distinct chords in the form of *appoggiatura* rushes. At (a) we have the diminished triad, at (b) augmented triad, and at (c) the chord of the fifth with the sixth. The string work, which forms only a portion of the score, is mere accompaniment to the more important outlining of the "wood-wind."

Ex. 286. *Con fuoco.* STRAVINSKY, "Feuerwerk"

V. I. *Con fuoco.* (div.) *ff* (a) (b) (c) *fff*

V. II. *ff* *fff*

Va. (div.) (non div.) *ff* *ff*

Celli *ff* *fff*

Numerous examples of such application may be found throughout this work, but there are certain cases of consecutive sevenths, ninths, etc., which seem to rise out of the part-writing, and need to be regarded differently from the passages which are avowedly Impressionistic in technique. This is the case with bar four of the following extract, where the ninths seem to come quite naturally from the leading of the parts, as also do the sevenths in the duodecuple writing in that exquisitely beautiful cadence at the end of Strauss's tone-poem, "Don Quixote." A similar passage occurs at the opening of the slow movement in Debussy's String Quartet in G minor.

Some
Exceptions.

Ex. 287.

Andante. (♩ = 54.)

J. BONNET, Moment Musical, Op.10, N^o4.

Ex. 288.

Sehr ruhig.

STRAUSS, "Don Quixote."

The construction in the following is also a case in point, belonging rather to the ultra-modern system of polytony, treated in Chapter XI., than to Impressionistic succession.*

Ex. 289.

ALBENIZ, "Fête-Dieu à Seville."

* The reader will have seen an important difference in the two classes of reproduction, the diatonic and the real. It is interesting to notice that, speaking broadly, we may associate Impressionistic development on the real lines with the French school, whilst modern German and Russian schools have shown a preference for the diatonic lines. It is significant that the "real" method is used chiefly by those composers, like Debussy, who follow the natural fundamental series of harmonics for the formation of their chords; whilst the less exact method is adopted more frequently by composers who build their harmony empirically

The foregoing remarks exhaust one of the chief characteristic devices of the technique of the Impressionist school. It was not invented by them, but they took the device up so eagerly, and developed it with so much zeal, that, as an end in itself, it has now reached the point of exhaustion. A passage harmonized simply in consecutive chords of the seventh is too stale and trite now for the seriously minded, and when the device is reanimated merely by the use of the rarer chords, it easily becomes extravagant (see Example 205).

But the principle may well be absorbed into the general technique in multitudinous ways, and with the happiest results. Used as a stream of harmonic colour against one or more free parts, or against another harmonically coloured stream, or even present only in some subtle spiritual way, the apparent *cul de sac* opens out into vistas of wondrous beauty. It is this which makes Debussy's songs so much more interesting than many of his pianoforte pieces; but the master who has clearly pointed the way forward in this respect is Maurice Ravel. Examples 217 and 269 give but the merest glimpses of the widening of harmonic beauty and potentiality for which this highly developed and complex personality has been responsible. This particular line of development is discussed further (Chapter XII.) under the head of Outlining.

**Absorption
into
General
Practice.**

like Schönberg. . . . Whilst writing this chapter, the author had the opportunity of making the following experiment before a "musical appreciation" class of some forty boys. Two songs, which the boys knew well, were taken on the pianoforte, accompanied purely by Impressionist harmony. The songs chosen were not, of course, well suited to this method, but were taken as extreme tests. With Schubert's "Wanderer's Night Song," whilst the original diatonic harmonies were preferred, a majority of boys voted for the *real* reproduction of common chords, whilst with the more energetic "Muth," by Schumann, most of them preferred the German Impressionistic device. As to the quitting of the last chord of such a series, they all preferred it to resolve in some way into the older system. The inferences seem to be that the *real* reproductive Impressionistic terms suit slow and soft progressions, whilst the more diatonic reproductions sound better with the louder and more vigorous melodies.

CHAPTER XI

HORIZONTAL METHODS

JUST as some kind of equal temperament—tonal, semitonal, tertiatonal, or it matters not what—will always exist side by side with the true natural tuning, as a medium through which we comprehend music, so the balance has always oscillated likewise between the “horizontal” and “perpendicular” methods of composing and listening—in other words, between the harmonic and contrapuntal styles. But composers who are avowedly harmonic rather than contrapuntal—in the old sense of the term—are frequently writing music which must be regarded as moving mentally along a given plane, whilst putting as little weight as possible on a perpendicular listening. When we listen to such passages as the following—

Ex. 290. BEETHOVEN,
“Les Adieux” Sonata. Op. 81a.

Allegro.

The image shows two systems of musical notation for piano. The first system is in G major (one sharp) and 3/4 time. It begins with a piano (Pf.) dynamic marking. The music consists of chords and simple melodic lines in both hands. The second system continues the piece, featuring a melodic line in the right hand with a slur and an 8-measure rest indicated above it. The notation includes various note values, rests, and dynamic markings.

Ex. 291. DVOŘÁK,
"Serenade."

Vns.
(Orch.) *PP*
Celli.

Ex. 292. MARY LOUISA WHITE,
Fantasie "The Guestling."

Andante moderato.
PP
(Pf.) *p* *calando* *ppp*

we are using our ears in quite a different way from the aural-mental listening in the slow movement of Beethoven's Sonata, Op. 10, No. 3, for instance, or even of a Bach fugue. With such apparently cacophonous passages as these, some atoning factor, such as the easy perception of a definite intention, or the carrying out of a fixed design, must be sufficiently evident to induce a mental regard other than the purely perpendicular listening. With the Dvořák example, the intention of combining the diminution of the figure with the original form is obvious, and the matter is made still clearer by the wide distancing of the parts.

It is the same with the opening of the third Act in "Tristan," where diminished and augmented fourths alternate. How beautifully Wagner enforces this horizontal listening in the two attenuated lines of his violins, gently carrying the ear as well as the eye to the far distance, where the appearance of a sail is expected! In the Stravinsky example, the aural-mind at once accepts

Melodic
Lines.

the pedal-chord on the strings, and applies itself to following the outlines of the woodwind. Where these clash, the mental power asserts itself over the physical, by admitting the imitation as a sufficient atonement and recompense.

WAGNER, "Tristan," Prelude, Act III.

Ex. 293. Lento moderato.

Vns.
(Orch.) *pp* etc.

STRAVINSKY,
"L'oiseau de feu."

Ex. 294. $\text{♩} = 92.$

Picc. (sounding 8va)
Fl. I. II.
Str.

In Example 295, also, the mind is listening horizontally, and the momentary clashes are not noticed at all. The completely similar motion in Example 296 is as interesting as it is unusual. We have a pair of fifths at the outset, which are ambi-consonant, being taken by leap of the third, and are therefore always acceptable. After this, the intervals vary continually, the spacing getting wider and wider, and the whole passage carries us on to the final Tonic, in a delicious downward sweep as natural as the alighting of a bird.

Ex. 295. (Angelic Chorus)

ELGAR, "Gerontius."

Poco lento. *pp*

(Chor.) *p* Praise

to be His Vice-roy in the world of

to the Ho - - li - est

mat-ter and of sense, Up on the frontier towards the

Detailed description: This musical example consists of two systems of piano and vocal staves. The piano part is in the left hand, and the vocal part is in the right hand. The key signature is three flats (B-flat major/D-flat minor) and the time signature is 4/4. The tempo is 'Poco lento' and the dynamic is 'pp'. The lyrics are: 'to be His Vice-roy in the world of to the Ho - - li - est mat-ter and of sense, Up on the frontier towards the'. The vocal line is marked '(Chor.) p' and 'Praise'.

Ex. 296.

Con moto sonnolento. MAC-DOWELL, "To a Water Lily."

(Pf.) *pp* *dim.*

Detailed description: This musical example shows a piano accompaniment in 4/4 time. The key signature is three sharps (F# major/C# minor). The tempo is 'Con moto sonnolento'. The dynamic is 'pp' and 'dim.'. The score shows a melodic line in the right hand and a more active bass line in the left hand. The piece ends with a fermata over the final chord.

In these and all similar cases, the aural intelligence is so engaged in following the interesting melodic lines, that it has a *diminished* power left to attend to the exact harmonic inter-relation of the parts. Even if the ear had time to do this, the mind would account at once for any comparative cacophony, by the onward sweep of the individual parts; just as in playing scales in contrary motion on the keyboard, we make no demur at the occasional ninths and sevenths.

In Example 297, the firm and determined progress of the melody in itself would atone for the free progress of the bass, but the passage is also sequential; or the bass may be accounted for, as an appearance of the ninth together with the root—a frequent practice with modern composers. In Example 298, we have an Impressionistic succession of augmented triads in the

**A Melodic
Line and a
Harmonic
Stream.**

treble against a contrary moving bass. Here again the listening is horizontal.

Ex. 297.

STRAUSS,
"Also sprach Zarathustra," Op. 30.

Schnell.

p *cresc.* *f*

Ex. 298.

PADEREWSKI,
Sonata in E \flat minor, Op. 21.

p *cresc.*

It is but a step onwards, from one melodic line against a harmonic stream, to consecutive streams of harmony, as in

Two
Harmonic
Streams.

Examples 299 and 300. In Example 299 there is contrary motion of the horns against a free bass, and a diminution of the subject on the woodwind.

The horizontal listening, together with the spacing of the parts and the assistance of the contrasted tone-colours, would atone adequately for any momentary clashing of the shorter notes. Tone-colour again would play an important part in such a passage as that in Example 300, where diminution of outline in the treble is present at the same time as augmentation in the bass, together with the direct form in the inner strings.

Ex. 299. *Andante maestoso.* Fl. Picc. A. E. H. Fl.

Cl. Fl. *p*

(4 Hns.) *mp*

C. & B. *pp*

Ex. 300. *Andantino.* A. E. H.

3 Fls. *p*

(Str.) *p* etc

C.B. Tuba *mp*

In the ending of Strauss's "Death and Judgment" we see the Beethoven idea, given at the beginning of this chapter, still further developed. The intention is so obvious, that the rubbing of the various planes is easily forgiven. In "Islamey," Balakireff has two streams of sound running in the same direction, with one moving more slowly than the other. This constitutes one of the most picturesque effects in the whole of pianoforte literature.

Ex. 301.

Moderato tranquillo.

STRAUSS, "Tod und Verklärung."

(Orch.) *pp*

p

9)

etc.

Ex. 302.

Allegro agitato.

BALAKIREFF, "Islamey."

p

p

molto

cresc.

al

ff

sf

At one of the most powerful climaxes in Strauss's "Heldenleben," we have three distinct streams, the brass holding on rich but ordinary cadence-chords against the downward scale of eight horns in unison, whilst the violins take an upward progression in notes of half value. Clashes occur at *a*, *b*, and *c*, but are hardly noticed by the intelligent listener.

Three
Streams.

Ex. 303. *Sehr lebhaft.* STRAUSS, "A Hero's Life."

Vns. Vas.,
Fls. Obs.,
Cls. & 1 Tpt.

8 Horns.

Tbn.,
Tubas, &
lower
Strings.

ff *ff* *ff*

a) b) c) etc.

The next advance is the combination of two or more streams *in different keys*. This feature leads us rather near to the study of Enharmony, which is explained later; but the device originated entirely on the lines of "horizontal thinking" with the Northern composers. Sibelius has a passage in his Fourth Symphony where the woodwind instruments are moving in the key of A major, against a remarkable pedal-figure in E flat on the strings. Our example is taken from the development of this passage. After these three bars the two orchestras work on together in contrasted keys for some time before the strings finally join the woodwind in the key of A major.

Ex. 304. *Allegro.* SIBELIUS,
4th Symphony, Op. 63.

Fls. a. 2. Ob. a. 2. Fls.

p *cresc.* *etc.*

sempre pp

String Pedal figure previously established

At one point in Wolf-Ferrari's "Jewels of the Madonna," the composer has contrasted the key of E minor on the orchestra against the key of E flat in the brass on the stage in a novel way, but the passage is somewhat crude. Scarcely more acceptable are the gruesome rushes of fifths in Strauss's "Elektra," even if we had time to listen to them as two streams; for the two planes of fifths are brought too close together for the principles of Polytony* to be admitted.

Ex. 305.

Allegro molto.

WOLF-FERRARI,

"I Gioielli della Madonna."

The musical score for Ex. 305 consists of two systems. The first system features a brass part on stage in E-flat major (Eb) and an orchestra part in E minor. The brass part is marked *ff* and includes a dotted line indicating a melodic line. The orchestra part is also marked *ff*. The second system continues the same parts, with the word "etc." appearing at the end of both staves.

Ex. 306.

Allegro.

STRAUSS, "Elektra."

The musical score for Ex. 306 shows a complex harmonic structure with multiple streams of sound. It is marked *ff sfz*. The score is written in a single system with a grand staff (treble and bass clefs) and a piano part. The piano part features dense, overlapping chords and intervals, characteristic of the "gruesome rushes of fifths" mentioned in the text.

The composer who has carried this technique of simultaneous harmonic streams furthest is Schönberg. In his "Fünf Orchesterstücke" we have several combined streams of harmony, all founded on unusual chord-formations, and all proceeding more or less independently. His pedal-chords, and pedal-figures too, consist of unusual formations. In fact, Schönberg has done for the empirical system of chord-building all that Debussy has done for the technique of the natural harmonic series.

* See p. 151.

Let us pass on to a more interesting question, springing from the "horizontal listening." This view of harmony is responsible for many of the newer and most beautiful chords in the modern technique, for most of these found their way first into the vocabulary by means of "passing chords." In Hegar's part-song, we find the diminished octave thus introduced, whilst in the Grieg Funeral March, we have one of the rarer forms of the "augmented sixth" chord.

Chords
derived
Hori-
zontally.

Ex. 307. *Vivace.* HEGAR, Op. 12, N^o 6.

(Voices.) To Mer - lin old etc.

Ex. 308.
GRIEG, "Åses Tod."
Andante doloroso.

(Orch.)

*

A horizontal listening will also explain the following examples, although the second chord in Elgar may be regarded as a use of the minor ninth together with the root, thus constituting a minor continuation of the idea seen in Example 297 (p. 135).

Ex. 309. STRAUSS,
"Till Eulenspiegel's lustige Streiche."
Sehr lebhaft.

f dim.

3

Ex. 310.

ELGAR, "The Apostles."

Musical score for Ex. 310, showing a piano accompaniment with a five-part chord structure. The score is in 4/8 time, key of B-flat major. The right hand has a treble clef and the left hand has a bass clef. Dynamics are marked *p* and *fp*. A small asterisk is placed below the bass line.

Similar methods are responsible for the five-part chord of Schönberg; the three inner parts move in major "six-fours" in contrary motion with the treble. This resultant chord has come to be accepted widely, with much freer treatment. In the Poldini example, we see the minor-second used in a similar way, the phrase being copied sequentially in bars three and four.

Ex. 311.

SCHÖNBERG,
"Lieder," Op. 2, No 1.

Musical score for Ex. 311, showing a voice line and piano accompaniment. The score is in 4/4 time, key of B-flat major. The voice line has the lyrics "Aus dem meer - grü - nen Tei - che". The piano part is marked "(Pf.)".

Ex. 312.

Presto.

POLDINI,
"Zigeuner Novelle," Op. 38, No 3.

Musical score for Ex. 312, showing a piano accompaniment with a five-part chord structure. The score is in 2/4 time, key of D major. The piano part is marked "(Pf.)" and ends with "etc."

Example 313 forms an interesting problem in musical reasoning. It is difficult to classify the chord on the second beat, but the intention is quite obvious.

Ex. 313. *Vivo. 8^{va}* REBIKOFF, "Danse caractéristique."

In Strauss's beautiful song "Allerseelen," a lyric piece of sheer harmonic and melodic beauty, we have an exquisite chord at * accomplished by a step in contrary motion in the outside parts.

Ex. 314. *Tranquillo.* STRAUSS, "Allerseelen?"

This brings us to the device of "reflection," which, so far as the writer knows, has never yet been treated with the importance which it deserves. The following few examples give but a small idea of the large part this device plays in modern music. This "mirroring" of the music may be purely melodic or completely harmonic. In either case the music of the upper pitch is reflected by the lower sounds. It should be noticed that

**The
Mirroring
Device.**

whilst the *major* common chord is reflected by a *minor* one, and *vice versa*, the “tonal” scale admits *exact* reflection within its own system.

Ex. 315.

a)



b)



We “reflect” the major scale vaguely when we play it in contrary motion, but the real “mirroring” is shown in Example 315 (c), as there both tones and semitones are truly reflected. The ancient writers used to show it as at (d).

Ex. 315.

c)



d)



Both these reveal the *real* methods of reflection as opposed to the *diatonic* treatment in contrary motion. The spirit

We see a wider application of the method in the Parisian composer's "Children's Cantata," written in 1904, and the same idea is evidenced in the daring passage for brass in Tscherepnine's psychological drama "Narcisse."

Ex. 320.

Lento. PIERNÉ, "The Children's Crusade."
(The Sea)

(Orch.)

Ex. 321.

Allegro risoluto. TSCHEREPNINE,
"Narcisse."

The case with "pedal-chords" is somewhat different. Once the ear has accepted a certain thing, the effect retires into the background of the aural "retina," and only counts in a secondary way until some change or contrast has been effected. It is a partial application of the familiar adage relating to familiarity and contempt. From it, spring all the "pedal" devices; and some of the rarer instances are provocative of much thought.

Take, for instance, the daring horn passage in Beethoven's Symphony in E flat, which is thrown on to a background of A flat and B flat—a major second—on the strings. This is a sufficient presage of the part which that new element, tone-colour, was shortly to play in harmony. The idea reaches its limit in such pedal-chords as that at the opening of the opera of Wolf-Ferrari's "Jewels of the Madonna," and in the pedal-chord, D, A, C sharp, held on for over a hundred bars, by three bassoons, and later by the muted trombones, in Schönberg's "Vorgefühle," Op. 16.

Ex. 322.

WOLF-FERRARI,

"Jewels of the Madonna" (1st five bars.)

Allegro.
Bells.

sf

(Voices.)

(Orch.)

sf

BEETHOVEN, "Symphony Eroica."

Ex. 323.

Allegro con brio.

(Vns.)

pp

Horn

A much pleasanter way of developing the idea is to accept a *concord* as the background, and to experiment with chords in some elevated plane of hearing. The assistance of the tone-colour and spacing will be all-important.

Ex. 324.

a)

3 Fls. & 8

Glockensp.

ppp

Str.

b)

Fl. Glock. 8

Harps.

pp

Cl. Fag.

Such a pedal-chord is by no means a new thing, and frequently forms the basis of harmonies of a quaint pastoral nature or of a rustic simplicity. The marked notes in the following simple ditty can only be explained on the assumption of a Tonic pedal-chord in the first two bars.

Ex. 325.

Tempo di Valse.

JOAN TREVALSA,
"Cowslips and Tulips."

It is but a short step from "pedal-chords" to "pedal-figures." If the ear can accept a combination of notes as a background on which to work more interesting figures, it can equally well place similarly a characteristic figure. Witness the violin trill in Stanford's beautiful First Irish Rhapsody and the little treble figure in York-Bowen's Suite.

Ex. 326.

Allegro molto.

C. V. STANFORD,
1st Irish Rhapsody

Ex. 327. Allegro vivace. YORK BOWEN, 2nd Suite.

The string and oboe figures in the "Danse Macabre" come under the same classification, as also does the treble figure in Example 329. The bell-like figure in Cyril Scott's third "Poem" makes an even greater demand. The same principle is very prominent in those harmonic studies of bell-tones which so fascinate many of the French composers (see Examples 330 and 339).

Ex. 328. Mouvement modéré de Valse. SAINT-SAËNS, "Danse macabre."

Ex. 329. Allegro con brio. WOLF-FERRARI, "Jewels of the Madonna."

Ex. 330. BLANCHE SELVA,
Cloches au soleil. (En Italie.)
Moderato. ($\text{♩} = 104.$)

Ex. 331. CYRIL SCOTT, "Bells" ("Poems" No 3.)
Moderato.

The Järnefelt figure in the popular orchestral *Prelude* is continued almost throughout the piece, and the variations by Borodin, Rimsky-Korsakoff, Liadoff, and Cui on a little folk-song tune treat the miniature theme in this manner. The theme (Example 333a) is associated with a popular children's game in vogue throughout the Russian Empire. But for sheer modernity, the pedal-figure in the first of Schönberg's five orchestral pieces stands unrivalled. The *resolution* (?) of it is seen at 333b.

Ex. 332. ARMAS JÄRNEFELT,
"Preludium"
Allegro quasi Allegretto.

The effect is frequently that of three distinct, yet simultaneous tonalities, working harmonically; but the principle is quite different. Examples 335 and 336 are constructed on several "quintal planes," whilst the commencement of the harmonic stream by M. Louis Villemin gives the feeling of four simultaneous planes.

Ex.335.

Au mouvement.

RAVEL, Miroirs, No 2.

Ex.336.

Lent et recueilli.

G. DUPONT, "Les Caresses"

(Scheme)

Ex. 337.

Moderato.

L. VILLEMIN,
"Etude en polytonie générale."

(Scheme.)
etc.

When these “quintal planes” are constructed upwards by three super-imposed *minor* common-chords, the “reflection” is much more cohesive, and the descending series will account for many of the “escaped chords,” explained in Chapter XII.

Ex. 338.

In the opening of Miss Blanche Selva's piece, as also in the cadence of M. Serieux's harmonic study, we have simultaneous thinking and hearing on two different planes, not unrelated to one another.

Ex. 339.

Très calme et estompé. (♩=60.)

BLANCHE SELVA,
“Cloches dans la brume.” (Ardeche.)

ppp
Scheme.

Les 2 Pedals (sans lever les)

Ex. 340.
 (Final Cadence) A. SERIEYX, "Les petits créoles."
 Modéré. Scheme.

The musical score consists of two staves: a treble clef staff and a bass clef staff. The treble staff begins with a 7-measure rest, followed by a series of chords and a melodic line. The bass staff starts with a forte (ff) dynamic and provides harmonic support. The piece concludes with a 'Scheme' section.

It is not yet realized sufficiently what an important part is played in harmony by the element of pitch. Many beautiful "escaped chords" are possible by merely choosing a pitch position in which they will easily evaporate. Such application may be both absolute or relative, and the acceptability of many passages in modern composers will be frequently accounted for, merely on the score of distance of pitch, contrast of colour, or consequent proportion of sound volume. This feature, however, will be dealt with more fully in the next chapter (see p. 161).

CHAPTER XII

LATER HARMONIC TENDENCIES

WHEN we begin to apply suspensions, *appoggiaturas*—single and double—elisions, and all the other devices, to the preceding harmonic methods, we perceive what an exceedingly complicated thing the mere harmonic possibility of music has become, quite apart from expression, volume, tone-colour, and rhythm. Numberless styles have sprung into being from a hazy method of expecting the mind to leap intelligently with almost intuitive swiftness, from one pitch to another far removed, in order to secure connection. This method seems to be related slightly to “pointillism” in painting, where any connection between the paint spots is impossible if too near and separate a vision is attempted. On the other hand, the blatant and full-blooded realism of Strauss, Stravinsky, Charpentier and Puccini, and the strenuous search after the *bizarre*, the mystic, and the *outré*, has led to harnessing together huge combinations of notes which defy all analysis, æsthetic, rational, and scientific alike. The *raffinement* of the percussive noises in Stravinsky’s ballets, the use of such accompaniment figures as the following from “Prometheus” :—

Ex.341. Allegro moderato. SCRIBINE, “Prometheus.”

Celli div. *pp* C. Bassi, div.

and such things as Strauss's depiction of Till's death-rattle, the dying shudder in "Don Juan," the windmill and the sheep, the braying of Sancho Panza's ass in "Don Quixote," the swishing of whips in "Elektra," and the screaming of "the baby in the bath" of the "Sinfonia Domestica," all surely point to a not far distant return into more aesthetic channels.

The cultivation of sensuous tone for its own sake, of the excessive and Spohr-like flattening of intervals to their utmost saccharine qualities, the love of sheer sonority and a huge number of notes in the later styles of scoring, all seem destined to have their return swing to a style in which economy of notes is the one thing to strive for in the expressing of ideas. Bantock, Elgar, Wolf-Ferrari, Cowen, Butterworth, Morse-Rummel, Bristow-Farrar, and many others may be mentioned as all having their economic periods, but the great apostles of "simplicity in expression" were undoubtedly Moussorgsky and Verdi.

Ex. 342.

MOUSSORGSKY, "Boris."

Non gli bas-ti e Bo - ris non vuo-leil tro-no

(Orch.) *mf* *sf*

It is an excellent practice for the young composer to revise his compositions by cutting out all unnecessary notes and bars. A wonderful insight into the real expressive power of sounds will thus be gained. The modern practice and theory of "elisions," which is now so widely developed, has the same end in view—a saving of notes, of time, and labour for the composer, executant, and listener alike, by omitting all that may readily be taken for granted.

So far, in the history of the art, we have had to deal with chords of which one consonant interval, at least, formed some part; but now, with "the cult of the second," we seem to

reach a point when discord is cultivated apparently for its own sake. It is important to notice that many composers use the "second" in chord-formation on the *softer* side of the centre of tone-volume, evidently wishing to replace a very definite effect by a certain undulating increase in sonority. This use of the interval calls to mind a practice of the older school of organists (now regarded askance, but distinctly effective in acoustic places) of adding a major second in the lower part of the keyboard to the final Tonic chord. In Example 173 we see an elevation of this idea by a modern composer.

An important exercise of one of the leading masters of pianoforte technique consists of the playing of diatonic scales very lightly and rapidly in seconds, whilst in one of Stravinsky's ballets, "Le Sacre du Printemps," a principal theme is hurled out by the trumpets in seconds, *fortissimo!* Taking a retrospective glance at the onward march of aural perception and accommodation, one wonders if the "second" will share the favour now bestowed on the dominant seventh,—acceptance as a concord.

Whilst considering the problem of discord in the abstract, it is interesting to notice a few uses by the great masters of the more dissonant *minor* form of the "second." In Example 43 we saw a case by Beethoven. The striking verisimilitude in Bantock's beautiful cantata for a double chorus is obtained by a striking use of this interval.

Ex. 343. BANTOCK,
Mistico. "Christ in the Wilderness."

Choir I. Yet it pleased the Lord to bruise Him

Choir II. it pleased the Lord to bruise Him

*

Choir I. *mp* He hath
 pleased the Lord to bruise Him
 Choir II. *mp* He hath
 it pleased the Lord to bruise Him

But the master who has favoured it perhaps more than any other is Maurice Ravel. Notice the very different resultant effects of the clash of the C sharp and D in Example 344, and of the G sharp and A in Example 345, and the astonishing resonance of Example 209.

Ex. 344.

Assez doux. RAVEL, "Pavane."
mf etc.

Ex. 345.

RAVEL, "Sheherazade."
 Poco Allegretto.
 (Orch.) *pp* etc.

We now turn to a modern development of an altogether different kind. The plan of thickening the melodic outline in octaves, whether in the bass or the treble, is not confined to any one master or period. The doubling in the extreme parts seems to be the first breaking away from the older paths. In the example from the "Falstaff" of that grand old master, Verdi, we see a device much affected by the younger Italian school.

Ex. 346. VERDI, "Falstaff"

César Franck has a beautiful application of it in his "Beatitudes."

These considerations bring forward the important questions of the musical *chiaroscuro* which is obtained from the pitch of a passage, and also that equally important factor in harmony, the *spacing* of the parts. Whereas Wagner, MacDowell, and the sunny Albeniz may be mentioned as thorough masters of the higher lights, Brahms and Tschai-kowsky, perhaps, have handled the lower tones with the greatest success.

From the facile enrichment of a part by doubling in octaves, we step on to thickening a given part by sixths and chords of the "six-three." This belongs to the older practice, but modern examples of it will be seen in the following extract from Elgar's great classic and in Example 265.

**Doubling
in Sixths.**

Ex.347. Allegretto. ELGAR, "Enigma" Variations.

Cls. Fls. added

p

Celli

The Dvořák Valse theme, given in Example 6, is one of the earliest examples of doubling a part in fifths. Grieg came very near to the same idea in several of his pieces. The three following extracts reveal some very different uses of the double outlining of a part by fourths:—

Ex. 348. RĚBIKOFF,
"Moment lyrique," for Pft.

Andante.

etc.

Ex.349. ELGAR, "Gerontius,"
(Demoniacal Chorus.)

Allegro.

f

Ex. 350. RAVEL,
"La Vallée des Cloches."

Très lent.

R.H. (Pf.) *pp*

L.H. *pp*

In Example 351 we see a beautiful application of a three-
A Threefold fold outline in the melody, against a background of
Outline. double fourths in the inner harmony. The piece
 requires to be thickly enveloped by both pedals.

Ex. 351. From the same.

The score for Example 351 consists of two staves. The upper staff is labeled 'm.d.' (mezzo-dolce) and contains a melody in 5/4 time with a dynamic marking of *mp*. The lower staff is labeled 'm.g.' (mezzo-grosso) and contains a bass line of double fourths. A large slur covers the entire piece, and the right hand part ends with 'etc.'.

The common-chord outlining in the Saint-Saëns Piano-
 forte Concerto is exceedingly interesting, and reminds one of
 many of the novel tone-colour effects in his Third Violin
 Concerto. It also constitutes an early instance of the Impres-
 sionistic use of common chords in real sequence. The listening
 here is assumed to be at least partially horizontal.

Ex. 352. SAINT-SAËNS, 5th Concerto.

The score for Example 352 shows four staves. The top two staves are for the piano (Pf.), with dynamics *pp* and *mf*. The bottom two staves are for the orchestra (Orch.), with dynamics *pp* and *pp*. The music is in 3/4 time and features common-chord outlining. A slur is placed over the piano part.

The doubling of the outline in sevenths and in ninths, in the following examples will be regarded by most people as distinctly experimental, although the first passage may be highly commended for its verisimilitude.

Ex.353.

SCRIABINE, Études, Op.65, N^o2.

Allegretto. (♩ = 80)

(Pf.) *p dolce* *rit.* *a tempo* etc.

Ex.354.

SCRIABINE, Étude, Op.65, N^o1.

Allegro fantastico. (♩ = 144-160)

(Pf.) *pp*

If questions of pitch count for so much in the practice of outlining, still more does the spacing of the various musical constituents bear on the acceptableness of the “Escaped” chords. These are generally highly-placed chords, apparently totally strange to the rest of the harmony, yet revealing, on a closer acquaintance, some subtle tie with the more substantial chord below it. Strauss places them very close together, but the qualification of true tone-colour always counts with him.

Ex. 355.

STRAUSS, "Elektra."

A pianoforte application of "escaped" notes may be seen in Example 168. Some theorists explain these as unresolved passing-notes, or *appoggiaturas*; but that there is some more fundamental connection is undeniable, and this may perhaps be discovered on the lines of Polytony. When the principal chord is sustained, any of the chords built up on one of the other "planes of fifths" derived either from the sharp or the flat side, may be struck above it and left to evaporate. The acceptableness of it will depend largely on the spacing, thus—

Ex. 356.

Of course, such passages are explainable as "pedal-chords," but even in such cases as Example 324, *a* and *b*, these chords do not seem to be altogether unrelated, although at present they defy all analysis.

CHAPTER XIII

MODERN MELODY

THE widest and most powerful appeal in music—that of melody—in many ways baffles the theorist in all but the most distant approaches. We may faintly detect some sort of fundamental plan in the rise and fall of the climaxes of pitch-intensity, and discover openings in the way of phrasing and breathing. We may have a scale plan of the tonality, but the methods of inspiration and the technique of melodic expression still lie amongst the mysteries of psychology and æsthetics.

A few scraps of technical information are found here and there. We know the confidence and power of the leap of the perfect fifth and the perfect fourth in melody, which causes it to be chosen as the vehicle of all powerful fugal enunciation, and of such confident expressions of faith as the opening to Handel's "I know that my Redeemer liveth." We all shudder at the ominous tapping of the drums at the diminished fifth in Beethoven's "Leonora"; but let us harmonize the same note as an augmented fourth, and we get an assertion of impudent assurance greatly favoured by the makers of music-hall ditties. Of course, the value of the interval would be altered again by the adoption of the "duodecuple" or of the "tonal" standard.

The historical study of melody is, however, of great interest because, apart from the question of folk-music, we find most of the later harmonic innovations predicted melodically. The augmented second and the diminished third both appeared in melodic form long before the "minor ninth" and "augmented sixth" chords came into harmony, and the chords built by fourths and fifths were heralded by such prophecies as the subject in Tschaikowsky's Sixth Symphony and the opening of Schönberg's Kammer-Symphonie. The ultra-modern writers

**Melodic
Prediction
of Modern
Harmony.**

seem prone to introduce their more *recherché* chords *step-wise*, thus appealing to the ear first *along a melodic line*.

Modern melody differs from the older in four ways: (a) in its much greater breadth (length of outline) and its largely increased range, (b) in its rejection of a vocal standard for instrumental music, (c) in its less formal divisions and more subtle outlining, and (d) in being written often over entirely different scale systems.

Whereas the early music was confined within the compass of an octave or a tenth, and written very circumspectly even so, the modern vocal music ranges freely over large tonal tracts, whilst the instrumental melody roams at will over the complete aural range of sound. Whilst the older melody panted along in short breaths of two or four bars, and generally rhymed at the cadences, modern melody sings on for whole periods with almost imperceptible breaks. The Haydn-and-Mozartian type of melody seems a mere jingle of rhyming falls in comparison with the Bach, Brahms, and Franck melodies, which are æsthetic and psychological entities. A greater freedom of chromatic colour pervades the melodies of these composers, but the supremacy of the diatonic scale is felt throughout.

Ex. 357. *Andante espressivo*. CÉSAR FRANCK,
Prélude, Chorale et Fugue pour Piano.



As an example of the increased range, the passage by that great vocal writer, Verdi, is significant; whilst the Elgar and Chopin phrases show the use of some of the less usual intervals:

Asiatics vocalize smaller intervals than the semitone, must be borne in mind by those inclined to doubt the possibilities of laryngeal development. The "duodecuple" system does not present the same difficulties as the "tonal," as it can be carried up to a certain point on the diatonic basis.

Ex.362. (Sehr lebhaft.) STRAUSS, "Ein Heldenleben."

(middle of harmony not given)

Ex.363. Viel langsamer. SCHÖNBERG, String Quartet, Op.7.

Vn. I.
Celli V. II. Va.
p

Ex.364. (Mässig) langsam. STRAUSS, "Ein Heldenleben."

The following example, however, makes greater demands. The Polish master's treatment of the scale is very daring, whilst the modern Russian's melodic writing demands the learning of a fresh scale-system founded on the chord given in Example 159.

Ex.365. Allegro molto. CHOPIN, Prelude in C minor, Op.28.



Some modern writing for the voice is seen in the following examples drawn from widely different sources, and all leaning towards the duodecuple scale:

Ex.367. Allegro moderato. ELGAR, "Gerontius,"



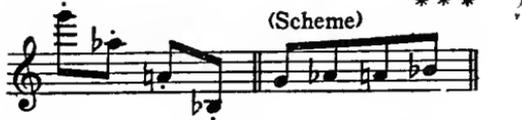
Ex.369. Keck und verwegen. HUGO WOLF, "Der Schreckenberger."



There is a sort of "Pointillism" which scatters the melodic line, by the large spacing of major sevenths. This is permissible on the twelve-note system; but it may be regarded also as a frolicsome dalliance with the chromatic scale on the diatonic basis. A full exemplification of this method will be found in the second of Schönberg's "Drei Klavier-stücke," Op. 11.

Melodic
"Pointil-
lism."

Ex.370.



The "whole-tone" system, however, is less compromising. It fairly bristles with augmented fourths, fifths, and sixths, and must be sung and listened to purely through the "tonal" medium.

Ex.371. Allegro molto vivace.

SIBELIUS,
4th Symphony, 2nd movement.

It is this strained "aural-vision" which causes most composers to regard the so-called "tonal" scale in the light of the "duodecuple," and inclines them to treat it as an arpeggio of a chord derived from the latter. This view is emphasized by the fact that the boldest of the innovators seem somewhat ashamed of the "whole-tone" appearance scalewise, confining its melodic fragments to treatments of the bizarre, *outré*, and demoniacal. The lyric utterances are seldom more than mere fragments, the connected use of the scale being apparently doomed to the lower regions of pitch. The following melody from Rébikoff seems much more acceptable when regarded as a series of mirror-like reflections in sets of three notes:

"Tonal"
Melody.

Ex. 372.

(a) *Vivo.*

REBIKOFF, "Les Rêves," Op. 15.

The image shows two staves of musical notation in 2/4 time. The first staff, labeled (a), begins with a treble clef and a key signature of one flat (B-flat). The melody starts with a quarter rest, followed by a quarter note G4, a quarter note A4, and a quarter note B-flat4. The subsequent notes are eighth notes: G4, A4, B-flat4, C5, B-flat4, A4, G4, F4, E4, D4, C4. The second staff, labeled (b), follows the same initial notes as staff (a). From the eighth note onwards, the notes are grouped with slurs and ties, indicating a more complex rhythmic or phrasing structure. The notes are: G4, A4, B-flat4, C5, B-flat4, A4, G4, F4, E4, D4, C4. The piece concludes with a double bar line.

Many mourn the apparent exile of true melody from modern music as an irremediable loss. It was only natural that composers' eyes and ears should have been all turned towards the wonderful new fields of harmonic development and orchestral colour for the time being; but we have passed long since the position of Berlioz, whose gaze at melodic outline was nearly always deflected by the glorious sheen of tone-colour which hung around it. The old style of melody is banished probably for ever, but a new harmonic art is already emerging, through which the melodic outline promises to shine more gloriously than ever.

CHAPTER XIV

MODERN RHYTHM

THE term "rhythm" is perhaps more promiscuously used than any other term in music. Having regard for the great elemental nature of its general application in ordinary parlance, it should stand in music for the regular pulsing of the beats, in the sense in which Berlioz described it as "the very life-blood of music." But it is almost as widely accepted in the sense of the division of music into sentences, phrases, and sections. Thus Beethoven's mark "*A tre battute*" in the Scherzo of the Ninth Symphony is generally interpreted as indicating "in three-bar rhythm."

**Vagueness
of Term.**

In the narrowing down of the universal sense of rhythm, the term frequently indicates the plan on which the time divisions of the bar are arranged. In this sense, this art of duration in musical sounds, dealing as it does with the manner of the movement in musical time, may be said to be the *metre* of the tonal art. There is also a subtler use of the term in the direction of variety in rendering, by the "bowing," by *staccato*, *legato*, *eguale*, *marcato*, etc.

In the wider application of the term in music, it denotes the arrangement of the bars into figures, phrases, and sentences, as marked off by the various cadences.

**Musical
Analysis.**

It often concerns itself with the musical rhyming of the phrases and sentences, especially in the more formal music of Haydn and Mozart, and it is always connected with the graded increase and decrease of the tension in musical pitch.

In all these directions, modern music has advanced considerably, and the rhythmic developments have reacted on the harmony. We shall deal with modern rhythm in the following order:

- (1) The subdivisions of the beats themselves.
- (2) The divisions of the bar.
- (3) The grouping of the bars.

The time seems at hand when the further requirements of the composer in the subdivisions of the separate beats may well be deemed to require an improvement of the notation, or an altogether new system of signs, to indicate the various durations of sound. A distinct sign is certainly needed for the third part of a beat, since the use of compound time is often cumbersome, whilst the triplet* is but a poor makeshift.

Half-beats against thirds, and quarters against sixths, are sufficiently commonplace now to possess a less ambiguous notation than that at present in use. The composers' practice of marking irregular numbers over the beat, hovers so indefinitely between the higher and lower powers, that examiners are supplied with a never-failing source of confusing the candidate. The latter is asked to decide a question which the composers themselves have never solved—namely, whether a quadruplet in compound time follows the rule of the quintuplet in simple time by being drawn from notes of higher power, as at (a), or lower power, as at (b), and how such practice is reconciled with the writing of the duplet, as at (c), and the Chopin values at (d).

Ex. 373.

CHOPIN, Scherzo.

The early music, despite its origin in the folk-dance, was not marked by a great variety of rhythm. This quality was not developed until much later, when the so-called rise of nationalism in music brought it to a high development. With the Slav music, rhythm was very prominent; but still this, and all the older art-music, was based entirely on the duplex system of note-duration, with the one exception of the "triplet."

* The present marking of the "triplet" is ambiguous either with the fingering or the phrasing, or with both. Professor Sterndale Bennett invented a sign (≡) which, however, had only a small vogue.

Nowadays, notwithstanding the present inelastic notational system, modern composers claim the proper timing of every fraction of a beat as a rightful demand. The chief pioneers in this respect were Liszt and Chopin. In the works of the latter we find groups of seven, nine, ten, eleven, thirteen notes, and so on to each beat. Such groups are evidently not intended to be subdivided, and frequently run right through the bar-line, as in the well-known waltz in A flat, Op. 34. A slight modification of view must be taken in the case of the *melismæ*, which Chopin writes in small notes, and which are always executed with the lightest of finger touches. On the other hand, such forcible passages as those at the end of the Ballade in G minor form excellent examples of modern views on the division of the beat.

Of such groups, at present, the quintuplet of crotchets or quavers is decidedly the most favoured for anything like continuous movement, although occasional pieces are found written in septolet movement. In the Toccata for Piano-forte Duet we see the reverse process. Here the last beat is lengthened slightly, so as to allow the five semiquavers to agree in duration with the rest of the bar. What is required here in the bass is a crotchet tied to a note indicating a fifth part of a beat.

Ex.374.

Allegro moderato, ma brillante. * * * Chorale for Pf. Duet.

The musical score for Ex. 374 is a piano duet chorale in 2/4 time and B-flat major. It is divided into two parts, I. and II. Part I. consists of two staves of music. The first staff begins with a quintuplet of eighth notes, indicated by a '5' above the staff. Part II. also consists of two staves. The first staff begins with a crotchet tied to a note, also indicated by a '5' above the staff, representing a fifth part of a beat. The tempo is 'Allegro moderato, ma brillante' and the piece is a 'Chorale for Pf. Duet'.

one of the beats. It is certainly very happy in the following example:—

Ex. 376. *Largo e semplice.* WILLIAM WALLACE. François Villon's Prayer to Nostre-Dame (from "Villon")

M. Charles Bordes seems to have had the opposite idea—that of elision or diminution—in his second "Fantasie Rythmique" (see Examples 377 and 378).

The proper view of the quintuple time is undoubtedly one strongly accented beat followed by the four weaker ones. However written, this quintuple time is much more firmly established than one at first imagines, and the various views of it may be studied in the following examples:—

CHOPIN: *Larghetto* from the Pianoforte Sonata.

REICHA: No. 20 of the "Thirty-Six Fugues."

WAGNER: Passages in "Tristan."

SAINT-SAËNS: Study, Op. 52.

MCEWEN: *Quasi Minuetto* from the "Four Sketches."

REEVE, W.: "The Gipsies' Glee."

SWAN HENNESSY: *Allegretto* of the String Quartet.

KARG-ELERT: *Quasi Sarabande* in the "Sonatina Exotique."

SCRIABINE: No. 4 of "Four Preludes."

BOSSI: Oratorio, "Paradise Lost."

Developments have by no means ceased with the quintuple time, and amongst the chief pioneers in the more complex division of the bar are M. Charles Bordes, Sigfrid Karg-Elert, and Florent Schmitt. In the second Aphorism, Karg-Elert has a new kind of six-four time compounded thus: four-four and two-four. M. Bordes, in his "Quatre Fantasies Rythmiques," has a study in fifteen-eight time, with a trio in seven-eight, and another piece with an eight-eight time-signature compounded of three-eight, two-eight, and three-eight, thus:—

Ex.377. *Allegretto.* C. BORDES, "4 Fantaisies rythmiques."

Ex. 378. *Vif.* From the same.

Schütt has a fine study for chords in seven-eight time. Karg-Elert divides a seven-four time of the first of his *Less Regular Time Signatures.* Aphorismem into four *plus* three; but has also a delicious "Pastel" for the organ which runs quite suavely in eleven-eight (see Example 379). Saint-Saëns has a "Prière" in eleven-four, which is less venturesome, and the idea of combined time-signatures is a mere convenience of notation.

Ex.379. *Assai quieto.* KARG-ELERT, "Pastel," Op.92, N^o1.

Ex.380 *Comodo.* SAINT-SAËNS, "Prière," Op.7, N^o3.

A recent innovation has been effected by the adoption of a single-beat bar. This is used for *marcato* and *bizarre* pieces, and the idea of accented and unaccented bars must be put firmly aside. In a footnote to the "Ritornel" of Karg-Elert's "Sonatina Exotique," which bears the time-signature "one-four," we read: "The rhythmic character of each bar is to be equally strong, and is not to be felt as in two-four or four-four time."

Ex. 381.



Similarly in the fifteenth of his "Aphorismem," in one-two time, the accents are all quite equal. Amilcare Zanella, in his "Une Drole de Chanson," writes in unary time, adopting the crotchet as his unit beat.

The next step in rhythm was made in the direction of combined time-movements. The employment of three orchestras playing simultaneously, one in three-eight, two-four, and the other in three-four time in Mozart's "Don Giovanni," brings to mind Chopin's Valse in A flat as perhaps the best-known example of six-eight time against three-four time. An interesting example of the mixture of duple and triple divisions occurs in Ravel's "Miroirs." The device is used again by Ravel in the following example:—

Ex. 382.

Un peu animé.

RAVEL, Valses nobles.

Tschaikowsky's mind often worked in the opposite direction, and a parallel to the Pianoforte Valse will be found in the third movement of his Fifth Symphony, where the violins are repeatedly phrased in twos, against the triple pulse of the accompaniment. That Schumann was very fond of the device may be seen in the "Kreisleriana," in the second movement of the A minor Concerto, and elsewhere. Florent Schmitt, in his "Neige," Op. 56 (a), desiring a certain alteration of the duplex and triplex divisions of bar, secures it by the use of the somewhat cryptic time-signature—"six-eight, three-four."

Ex.383. Tempo di Valse. TSCHAIKOWSKY, Valse, Op.40, N^o9.

Ex.384. Calme. (♩.=59) FLORENT SCHMITT, "Crépuscules," N^o2.

Swan Hennessy has a Pianoforte Étude with five-eight time in the left hand against two-four in the right. The Elgar and Ravel examples also present very happy combinations of varied times.

Ex.385. * Allegro molto. SWAN HENNESSY, Etude, Op.25.

Ex. 386.

Allegro. $\text{♩} = 104$.

ELGAR, 1st Symphony.

Ex. 387.

D'un rythme souple.

RAVEL, "Miroirs," N° 3.

Apart from this, a widespread desire has long been evidenced on the part of composers for the interpolation of occasional bars of an irregular number of beats, whereby the thought gains a greater freedom than that allowed by the fixed time-signature.

Such free use of the bar was almost bound to lead in extreme cases to the abolition of the bar-line altogether, a course followed by Zanella in his Op. 44, Two Studies for the Pianoforte. In these pieces he aims at giving more elasticity to the general construction of the period, so that greater variety may be imparted to the rhythm, without the art-form thereby losing its equi-

Barless
Music.

librium in the slightest degree as a whole. In a footnote he advises the player to distinguish most carefully between the value of the single quaver and those of the triplets. On the other hand, in his Second Study he states that the quaver must always have the same value both in groups of two, three, four, five, or seven quavers. The accents are carefully marked where required, and *sf.* is used for a slight exaggeration of the emphasis. The accidental applies always only to the note which immediately follows.

For cases of still more combined complex rhythms, the student cannot do better than refer to the chamber-music of Brahms, whilst, as an example of elaborate orchestral texture, the following brief extract will suffice to indicate the lines followed by those modern orchestrators who acknowledge Wagner as their leader:—

**Combined
Complex
Rhythms.**

Moderato. BANTOCK, "Christ in the Wilderness"

Ex. 388.

(Orch.) *pp* *etc.*

The old formal regularity in phrases has now disappeared. Even the exhilarating *Con moto continuo* pieces now sound rather *naïve*. The rhyming of cadences is much rarer and more subtle, whilst increased harmonic appreciation has rendered many of the older set cadential forms not only unnecessary but tiresome.

To what an eloquent variety, modern phrasing and punctuation has now attained, may well be seen in the music of Brahms, Franck, and Reger. Amongst the modern composers, who have distinctly followed on these lines of complete elasticity of phrasing, are Debussy, Ravel, Stanford, Mackenzie, Scott, MacDowell,

**Variety
in Phrase
Lengths.**

and, indeed, all the composers who may be considered progressive in the best sense.

In their music we find phrases of eight, seven, six, five, four, three, two, and one bar, and even fractions of a bar, contrasted, responded, paired off, rhymed, extended, and curtailed. As an instance of perhaps the extreme point to which the elasticity of the bar can be carried at present, the following will serve:—

SCRIABINE, Impromptu, Op. 7, N^o 2.

Ex. 389. À la Mazur.

The musical score consists of two staves: a treble clef staff for the right hand and a bass clef staff for the left hand. The key signature is three sharps (F#, C#, G#) and the time signature is 3/4. The right-hand melody is characterized by irregular phrasing, with notes marked with 'x' and some phrases indicated by brackets and numbers (7, 8, 7) above them. The left hand plays a steady accompaniment of quarter notes. The piece begins with a piano (*p*) dynamic and ends with the abbreviation *etc.*

This increased refinement of rhythm in musical thought has acted and reacted on harmony in many ways, and music is now eloquent with a gloriously imaged and highly impassioned prose, which easily out-distances either of the sister arts of pen or brush in its powers of aspiration.

CHAPTER XV

MODERN FORM

No art is more cramped by the unnecessary limitation of its terms than music. The word "harmony" has now thrown off its conventional shackles to a great extent, but still with a large number of people "melody" signifies an exclusive use of diatonic platitudes and effete banalities. The restrictions which have crusted over all ideas of "musical form," almost to petrification, have naturally resulted in the complete exhaustion of those few forms, the use of which is still regarded exclusively as "good form" by many musicians.

As MacDowell has said: "If by the word 'form' our theorists meant the most poignant expressions of poetic thought in music, if they meant the art of arranging musical sounds into the most telling presentation of a musical idea, we should have nothing to say; for if this were admitted, instead of the recognized forms of modern theorists for the proper utterance, we should possess a study of musical sounds which might truly justify the title of musical intellectuality. Form should be a synonym for coherence. No idea, whether great or small, can find utterance without form, but that form will be inherent to the ideas." This coherence, which is "form" *per se*, may be secured in many ways.

The full problem first presented itself when instrumental music separated from vocal, soon after the "Apt for voices or viols" period; and the early composers, seeing how necessary it was to lay down some intelligent lines in the new region, decided that music should be built like architecture in certain definite and balanced designs. Architectural design—Ruskin's "frozen music"—soon became a mere fetish, and consequently a serious hindrance to expression.

This unnecessary narrowing down of the term "form" led to a lamentably limited range of vision, and a consequent

cramping of the possibilities of the art, completely stultifying its progress. The testimony of history is all for the broadest possible expression. Bach's "Forty-Eight Preludes and Fugues" are as perfect and as "classical" in their forms as any of the Beethoven and Brahms Symphonies, Sonatas, and Quartets. Indeed, the elasticity and virility of the old Cantor's forms contrast rather strikingly with some of the mere "padding out" of form in the works of both the later composers. Moreover, Beethoven himself shows his feeling of dissatisfaction with the so-called "Sonata" forms, and breaks away completely from the older traditions in his later Symphonies, Sonatas, and Quartets. In aiming at a greater coherence and more freedom in self-expression, the last vestiges of the early "dance suite" disappear entirely, and his slow movement frequently appears as a *link* between the others. Already in his C minor Symphony, we feel he is striving for something behind and deeper than the mere music, and in consequence he opens up again the "programmatic" lines, formerly feebly attempted by Johann Kuhnau in his "Bible Sonatas." Indeed, Programme Music is no new thing, and may be defined as a modern branch of thought grafted on to the musical mental attitude of preceding generations.

Beethoven's achievements in this direction thus opened out the way for the "symphonic poem" of Liszt, Berlioz, and Strauss. This form may have for its basis—(a) a *certain definite plot or drama*, as is the case with Liszt's "Dante" Symphony and his "Mazeppa"; Berlioz's "Symphonie Fantastique," his "Waverley" Overture, and "Les Franc Juges"; Dvořák's "Wild Dove," "The Water-Fay," and "The Witch"; Saint-Saëns's "Danse Macabre" and "Le Rouet d'Omphale"; Strauss's "Don Quixote," "Till Eulenspiegel," and "Ein Heldenleben"; Tschaiakowsky's "Romeo et Juliette" and "Francesca di Rimini"; and Elgar's "Cockaigne" and "Falstaff." Or (b) *a more subtle psychological basis*, as with Liszt's "Les Preludes" and his "Orpheus"; Strauss's "Tod und Verklärung," and "Also sprach Zarathustra"; and Scriabine's "Le Divin Poème," or his "Prometheus" (Poem of Fire), which latter, the composer ascribes to a theosophic basis.

In either case, how closely the plot is drawn together

depends entirely on the mentality and the concentrating power of the composer, for the form is capable of endless application and expansion, and all the varieties come under the head of Programme Music, as compared with Absolute Music.

When the Programmatist laid aside the older forms, something more than balance of tonality and parts was thought necessary, and the want was supplied by Wagner's *leit-motif* and by Berlioz's *idée fixe*, or representative theme. This representative theme—*idée fixe*, *leit-motif*, or whatever we choose to call it—must have a twofold character. It must not only possess a literary or dramatic interest of its own, but must also satisfy our musical sense in addition. The balance is difficult. Wagner thought Beethoven was too musical and Berlioz too literary, and his own musical drama *just right*.

These devices have been adopted wholly, or partially, by every composer of Programme Music since that time—from Richard Strauss, Smetana, Saint-Saëns, Dvořák, up to Elgar, Bantock, and Delius. The writers of annotated programmes seem almost to owe their very existence to this device, since this type of music always needs some initial explanation, or at any rate some musico-literary signposts.

Beethoven had used musical mottoes in his Opus 81, and Schumann mystic letters in his cycles of pieces.

Ex. 390.

Grave.

Allegro.

BEETHOVEN,
String Quartet, Op. 135.

Muss es sein? Es muss sein! Es muss sein!

But Berlioz associated themes with definite ideas in the story or scene which he wished to illustrate. Liszt achieved a closer unity by founding almost all his themes and movements on his one chief subject, or on ingenious metamorphoses of it. The following examples will make his method clear:—

Meta-
morphosis
of Themes.

Ex.391.

LISZT, "Les Préludes."

(a) Andante. *pp*

(b) Andante maestoso. *ff e marc.*

(c) Cantabile. *mf*

Liszt had a firm grip on the great principles of *form as coherence*, and gathered up his themes at the close with considerable power. Witness the final section of "Tasso," where he combines, and at the same time changes, the character of his two chief *motive*. Wagner carries the idea further in his magnificent peroration to the "Mastersingers" Overture, where he brings together the three chief themes.

Ex.392.

WAGNER, "Meistersinger" Overture.

Molto moderato.
Vns, Celli, 1st Horn.

Hns. Vas. Ob. Fl. *p*

Fag. Bassi. Tuba. *mf* aber sehr markirt

At present, the almost alarming multiplication of themes seems to point to the abandonment of the *leit-motif* idea, since many of them are not used again. The increasing aural-mental power of the public renders them less necessary, and allows the composer to fill up all parts of his musical picture with more or

**Multiplicity
of Themes.**

less significant material. Elgar's "Falstaff" is a case in point, whilst Bantock, in "Fifine at the Fair," has swung over to a series of more definite episodes held together by the literary character of the subject.

The literary element in music presupposes some fitness and ability of perception on the part of the hearer, for when a composer writes a "tone-poem," he assumes that the auditor possesses some knowledge of the chief subjects of Shakespeare, Goethe, Schiller, Shelley, Hugo, and the other great ones in literature, even though this knowledge may be gathered freshly from a printed annotation or a friend's hasty *résumé*. For instance, the hearer at the outset must know what the violin solo in "Ein Heldenleben" stands for, and so on. Much progress is still being made by the Absolutists, who hold that the clue must be in the music itself. In the symphonies of the later composers, we find the old "sonata" lines much modified, chiefly by a multiplication of subjects, and less regularity in the arrangement and in the tonality

of the peroration. The number of movements varies from one to six, and they tend to be all connected without a break. This may be seen in the Symphonies of Saint-Saëns, Lalo, Elgar, Parry, Scriabine, and many others. But the master whose works reveal the most interesting developments on the lines of absolute music is César Franck. All his music is of great moment from this point of view, apart from its wealth of thought and beauty of expression. We must content ourselves here with a short outline of his beautiful string quartet in D, which he wrote in his fifty-sixth year. D'Indy explains it as a Ternary form with a modified sonata as the middle part. Here are the themes :

Ex.393. FRANCK, String Quartet in D.

Lento. Theme X.

etc.

Allegro. 1st Subject.(a)

etc.

Bridge Subject. (b)



Cello

Second Subject. (c)



and here is D'Indy's analysis :

I. *Lento*—Theme X, D major.

(A) *Allegro*—Exposition : (a) First subject, D minor.
 Bridge subject (b), leading to II. ; Second subject (c), F major proper.

II. Development of *Lento*—Theme X, F minor, G minor, etc.

(B) Development of Themes (a) and (c) with modulations.

(c) Recapitulation : First subject (a), D minor.
 Bridge subject (b), F sharp, G major. Second subject (c), B major, D major.

III. *Lento*—Theme X, ending in D major.

We give the outline of Schönberg's interesting *Kammer-Symphonie* in E for several reasons. Chiefly because, with all its modernity, it follows the older "sonata" form. After a short introduction of purposely vague tonality, we have the first subject given out, and the rest is a model of orthodoxy in form. The extracts also supply us with some interesting duodecuple scale-writing, whilst the accompanying arpeggio to the eerie second subject shows what trouble the modern composer will take to secure coherence of tone-colour.

Ex. 394.
 1st chief Subject.

SCHÖNBERG,
Kammer-Symphonie in E. Op. 9.

Allegro.
 wd wd



Celli & Wd wd

Bassi & Fag.

etc.

Ex. 395.
2nd Subject.

Fag. I. B.Cl. in A. Cl. in B. Cl. in D. Cl. in A. Cl. in D. etc.

pp

pp dolce

Ex. 396.
Peroration.

Str. & Wd. *ff*

Hns. I. II. *ff*

Str. etc. *ff*

There is a strong grip of tonality felt throughout this forceful composition, just as there is, only in another way, in Scriabine's tone-poem "Prometheus." It will be seen that the latter composer's adopted "tonality chord" is responsible no less for the opening (Example 397a) than for the final chords of this remarkable work (Example 397b).

Ex. 397.

(a)

SCRIABINE, "Prometheus."

Lento.

4 Horns *p* *sord.*

Str. & W.W. *p*

(b)

Chorus

ff

Orch! Outline *ff*

With the Impressionists, "form" must be accepted as coherence and justification, and in this direction Debussy's "L'Après-midi d'un Faune" is as satisfying and convincing as that other beautiful idyll, the "Lohengrin" Prelude.

**Mono-
thematic
Forms.**

In England, the adoption of that single art-form, the "Phantasia," for instrumental trio or quartet, owes much of its cultivation to that generous art-patron, Mr. W. W. Cobbett. New ground has also been broken by Dr. Walford Davies in his Six Pastorals for a string quartet, a vocal solo-quartet and pianoforte, and also in the "Peter Pan" Suite for string quartet.

The recent wonderful discoveries in harmonic research have led to the rise of a distinct form, which may be called a harmonic "study." A certain mode or scale is taken, or more often a characteristic chord, from which one or more scales can be evolved. This combination is exploited exclusively, in a piece which, held together by the new and strange tonality of the chord and some rhythmic design, owes its chief charm to the exploitation of some new "harmonic rays." A similar procedure takes place when a composer wishes to revel in the enharmony of "bell-tones," an almost inexhaustible inquiry. The "harmonic study" serves amply for the demonstration of new harmonic beauties, and much of the work done finds its way into the broader walks of the art.

Schumann was the originator of the short poetic piece, the real "tone-poem," compared with which the big canvasses of Liszt and Strauss deserve the title of "tone-dramas." This reveals how ambiguous the terms of musical form are, since *all* music should have this quality of "poetry in sound" as one of its constituents. The Miniature forms serve either for tone-pictures, as with MacDowell; for little "Harmonic Studies," as with R ebikoff; or for tiny Pastels of absolute music, as with Scriabine's "Preludes." The following piece is a splendid example of what can be achieved in this form on the absolute lines:—

Ex. 398.

Lento. $\text{♩} = 54$.

SCRIABINE, Op. 31, No. 4.

The musical score is written for a single melodic line on a grand staff. It begins with a piano (*pp*) dynamic and a tempo marking of *Lento* with a quarter note equal to 54 beats. The key signature has two flats. The melody is highly chromatic, with frequent changes in harmony and a sense of constant motion. The piece concludes with a *dim.* (diminuendo) marking.

The image displays two staves of musical notation for piano. The first staff consists of two systems of music. The first system has a treble clef with a key signature of two flats and a 3/4 time signature. It features complex chordal textures with dynamic markings *pp*, *p*, and *pp*. The second system continues with similar textures and dynamic markings. The second staff also consists of two systems. The first system has a treble clef with a key signature of one sharp and a 3/4 time signature. It features a sequence of chords with dynamic markings *p*, *p dim.*, and *ppp*. The second system continues with similar textures and dynamic markings, ending with a final chord marked *ppp*.

By permission of Messrs Breitkopf & Härtel.

The influence of modern Musical Form on Harmony has been more subtle, and consequently is less definable than is the case with the later development of Melody, Rhythm, and Tone-colour. Nevertheless, it is undeniable that the tightening up of the longer forms, and the condensation of the thought in the smaller moulds, have exercised a considerable power on modern harmonic development.

CHAPTER XVI

CONCLUSION

It is true that composition cannot be taught by rule, but the technique of it can, and this must be acquired in one way or another, before real composition becomes possible. The composer may learn this technique slowly and painfully by his own keen experiences of failure and success; or he may secure its mastery by a diligent and enthusiastic analysis of the works of the great masters, first in the study and then in the music-room, the concert hall, and at the opera house.

Either of these methods may be supplemented materially by advice and lessons from a good master, or from the careful study of a modern theoretical work. A theory of musical harmony is a systematized collection of musical facts, and logical and clear thinking is greatly assisted by such a classification of harmonic possibilities. However acquired, a knowledge of technique must precede the expression of musical thought.

Moreover, it is not sufficient for the present-day musician to be master of one kind of musical expression, but he must be fully primed in the technique of all the styles.

The Composer's Equipment. There is the great contrapuntal school of the seventeenth and eighteenth centuries, the fine expressional school of the nineteenth, the Romantic Movement, the Programmatic, the Impressionistic, the Post-Impressionistic styles, and so on. And standing at this end of a period of amazing artistic activity, and a phenomenally rapid development on all sides, in an art little more than three hundred years old, the composer's technical equipment evidently is no matter to be lightly taken in hand.

The Exercises at the end of this volume are given to enable the student to gain some insight into the methods and some practical experience in the technique of the various

styles of utterance. Let him beware, however, of assuming any particular style merely as a pose. Many interesting discoveries and demonstrations may be made by composing with a new scale or chord-formation written out in front of his writing-desk, but the result cannot be expression in any high degree. The "Tonal" scale must become part of one's nature before one can think freely and naturally through this medium, and then there is the listener's view to be considered. Sincerity must stand before everything else in music, and the style must be suited to the particular subject, that kind of musical speech being adopted which affords the composer the best means of expressing his thoughts.

In addition to these and many similar studies, let the student be constantly turning back to a renewed appreciation of the great masters of the past, for only by that means can he hope to keep his hold on fundamentals. The compositions of Beethoven's first period sound like Haydn and Mozart, and Richard Strauss's early works are permeated with the same feeling. Wagner's early operas are at the best but a mixture of mild Weber and Meyerbeer, whilst Schönberg's and Scriabine's early pieces are "harmless as doves." However, in his appreciative studies, let the student beware of a blind, unthinking hero-worship, which would raise certain recognized masters above all criticism. For there are many "Homeric noddings" in the counterpoint of Bach, just as there are mere "paddings" in Beethoven and even in Brahms. Moreover, with some composers the very gift of exuberant fluency of expression causes them frequently to write without the divine fire. Let the student avoid putting himself into the position of many an enthusiastic Handelian, who sits and enjoys every note of the long movements by Erba and Kerl, which Handel lifted bodily into the "Messiah."

With ultra-modern music it may be true that "the incomprehensible utterances of to-day will be mere childish babble to the next generation," but still the student must remember that *all is not music which is modern*. He should know the whole technique of the Realists, whilst at the same time he will not fail to perceive the far-fetched and too self-conscious *diablerie* of such things

**The
Purpose
of the
Exercises.**

**The
Perception
of Style.**

**The
Fallacy of
Realism.**

as the "March to the Scaffold" and the "Witches' Sabbath" in Berlioz's "Symphonie Fantastique," and the extravagance of such appliances as a theatre wind-machine in "Don Quixote," and the swishing of whips in "Elektra." Realism, especially cacophony, freezes the emotions; whilst Idealism, the expression of beautiful thoughts in beautiful language, can never fail to arouse a warm feeling of appreciation.

In approaching a new tendency—such as Impressionism, for instance—the student must beware of passing judgment on the first hearing, and must come to it with an open mind, free from all bias. The Impressionist **Impres-**
sionism. *accepts* the position that much of his thought must doubtless be lost in the transference into sounds, and so with a consummate mastery over the technique of this new art, the composer deliberately throws a veil of elusiveness over the whole of his musical expression. Such music is not the hasty jotting of careless hands, but the product of musical and mental organizations more highly developed than any hitherto known. The music of Debussy and Ravel, of Schmitt and Scott, of Dukas and Vaughan-Williams, is very much more than a mere "bath of sound, which creates a decided atmosphere of its own, often beautiful and highly sensuous," as one prominent theorist puts it. Undoubtedly there is in this music far more than the appeal to mere physical sensations. With the Impressionists, another step has indeed been taken towards the conquest of a refractory medium. Such a recording of the sensitive impressions of exceedingly complex temperaments constitutes in itself a triumph over matter, in the expression of ideas hitherto unapproachable by pen or brush, and only as yet partially apprehensible by music.

But *all is not "tonal" that is French, nor all French that is "tonal."* As the student's acquaintance with the modern French schools grows, he will cease to confuse the style of Debussy, Chabrier, Koechlin, Lenormand, and Moret with that of César Franck, D'Indy, Dukas, Rousseau, Pierné, Tournemire, and Ropartz, nor yet with that of Ravel, Florent Schmitt, and Chausson. Still less will he think that Impressionism arose in France, and was developed there alone.

The proper appreciation of the real values of orchestral tone-colour is understood but imperfectly at present. Yet its influence on harmony has been both powerful and widely spread. With such a full range of widely contrasted tones as the modern orchestra supplies, the possibilities of harmony are inexhaustible. Chords which are impossible on the monochrome keyboard, glow with indescribable beauty on the orchestral canvas. Again, new possibilities are evoked by the full appreciation of the true nature of the various methods of tone-production. The bubble-like emission and beautiful sustaining power of the wind instruments, the suave delivery of the strings, the transparent nature of the harp tones, all contrast strongly with the hammer-like "thud" of pianoforte tone-production. The clash at the seventh chord in the following, when played on the pianoforte, is simply non-existent in the orchestra.

**Influence of
Tone-Colour
on Har-
mony.**

Ex. 399.

Etwas langsam.

WAGNER,
"Die Walküre." Act III.

Fl. I. II.

pp

Ob. I.

pp

Cl. I. II. in A.

ppp

Fag. I.

pp

Bs. Cl. in A.

pp

Short score :—

(Short Score)

A musical score for piano, consisting of two staves (treble and bass clef). The music is written in a key with one sharp (F#) and a 4/4 time signature. The score is enclosed in a large, horizontal oval. The notation is extremely dense, featuring a high number of accidentals (sharps, flats, naturals) and a large slur covering the entire passage. The notes are often beamed together, and there are many ties. A small asterisk (*) is placed at the bottom right of the score.

Such passages as Examples 400 and 401 are unthinkable on a keyboard instrument or with voices.

Ex.400.

SCHÖNBERG,
5 Orchesterstücke, Op.16.

Bewegte Achtel. Fis.

Hn. *p*

Celli

Lower wd wd *b*

B. Tuba (muted)

etc.

A musical score for orchestra, showing a passage for Horns (Hn.), Celli (Celli), and Lower Woodwinds (Lower wd wd). The score is in 3/8 time and the key signature has one sharp (F#). The Horns part is marked *p* and has a dynamic marking of *p*. The Celli part has a dynamic marking of *b*. The Lower Woodwinds part has a dynamic marking of *b*. The B. Tuba part is marked (muted). The score includes various musical notations such as slurs, ties, and dynamic markings.

Ex.401.

F. SCHREKER,
"Der ferne Klang."

Muted Str.

Stoppd. Hns.

etc.

A musical score for orchestra, showing a passage for Muted Strings (Muted Str.) and Stopped Horns (Stoppd. Hns.). The score is in 3/4 time and the key signature has one flat (Bb). The Muted Strings part has a dynamic marking of *p*. The Stopped Horns part has a dynamic marking of *p*. The score includes various musical notations such as slurs, ties, and dynamic markings.

The following Bantock example is only possible on the separate groups of the orchestra, the limit of voices in this respect being shown in Example 343 for double chorus :—

Ex.402. *Vivace.* BANTOCK, "Fifine."

col 8

Full Wood & Brass & Violas.

Gr. Cassa

Full Strings (except Violas) *poco rall.*

Such thinking as that evidenced in the following example could only have originated on a sound basis of tone-colour appreciation :—

Ex.403. SCHÖNBERG, "Erwartung."

Clar.
Solo Vn.
Ob.
Solo Va.
C. A.
Fag.

Solo Cello.
Hn.
Clar.

Solo Va.
Bass Clar.

Tuba
Contra Fag.

Only the widest experience will enable the composer to choose always the right *medium* for his thoughts. How frequently one hears obvious pianoforte language painfully struggling to coherent articulation on the strings; a "string" passage torn to shreds by the "brass"; the evanescent tremulous harmonies of undamped pianoforte chords being blasted out from the strident, unyielding tones of high-pressure organ pipes. One need not continue, for these mistakes are glaringly thrust upon our ears so frequently.

How many more blunders are made in the sense of scale. At our musical festivals we still hear works with no pretence to the "grand manner" given by a body of choralists and instrumentalists some five hundred strong, and one frequently hears a couple of hundred adult voices staccatoing out some dainty joyous measures, evidently thought-out consciously or unconsciously on the scale of a small school choir.

Economy of means is a safe motto for the young student. He does not need a Nasmyth hammer to crack a nut. Yards of drum surface, and many cubic feet of brass, are necessary for the musical presentment of such titanic figures as "Prometheus," but are absurd when employed for the self-conscious outpouring of ruffled feelings in a rather juvenile love affair. Beethoven's Pastoral Symphony is a delicious idyll of the most delicate kaleidoscopic colouring, needing but a small orchestra even to suggest the storm, whilst the C minor epic never seems to satisfy one's craving for more and more violins to declaim that defiant phrase at the opening; and still more horns to hurl out that cataclysmal utterance at the commencement of the second subject.

Ex. 404.



Herr Max Reinhard should have taught us in the "Miracle" and "Œdipus Rex" the values and the dangers of "mass,"

but the most disastrous mistakes of the modern concert-room are still made in this direction. Small wonder, **Mass.** then, if the refined musician should retire so frequently into the seclusion of his study and music-room for the cultivation and enjoyment of the smaller but far more artistic forms of solo and chamber music.

The cultivation of these smaller-scaled works, which appear in an endless variety of forms, is one of the most noticeable features of the present day. This is **Small Scale Works.** easily understood, for when the composer feels more confident of his interpreters, he naturally unbosoms himself more freely, and gives expression to his deepest and most intimate thoughts.

* * * * *

As to the future of musical harmony, it is unwise to prophesy; but with regard to the present, few will agree with those who cry out that the arts are now both retrogressive and decadent. To such alarmists we would say that if the study of the musical classics inspires them with a distaste for modern music, there is something seriously wrong with the method of their own musical training.

No school is more attacked by such critics than that of the French Impressionists, against whom they level the **The Appeal to the Senses.** charge of sensuousness. Are we to say that there is no real musical thought behind all their elaborately beautiful harmonic webs? Rather let us admit that the Impressionists at any rate are at one with the so-called "classicists" in having for their chief aim the expression of the eternal verities. If at times many of them run to complexity and extravagance, they may easily be forgiven, for *truth is greater than any of the terms in which we can express it.* And as time goes on, truth is perceived to be wider and wider, and consequently presents an ever-greater challenge, and an ever-increasing incentive to the artist to grasp more and more of it.

Even if there were no musical thought behind this new music—an inconceivable hypothesis—there is still much to be said for a school which pursues Ideal Beauty itself as its sole aim. In the development of mankind the emotions have always preceded the mind. Truths, which the mind is power-

less to express, are "sensed" indubitably by the æsthetic faculties. What wonder, then, if the musical Pragmatists—the Empiricists—again and again assail the citadel with an altogether new and more complex organization. This very cult of the sensuous in art, this attempt to capture Ideal Beauty itself, has already contributed, and doubtless in the future will contribute still more, to the further opening out of the powers of musical expression. Both with realistic cacophony as with extravagant complexity, the development of opposing schools will help finally to a wider appreciation of the truth, and a greater power of expressing it.

Naturally this book has only concerned itself with the technique and the canons of the art, the applications of which broaden daily. It could not attempt to probe further into the sources of inspiration, or grasp the origins of the real musical thought, of which the sounds and their technique are but the mere *vehicle of expression*. Any further analysis lies beyond the veil which even metaphysics and psychology have not yet been able to approach, much less draw aside.

It seems not inappropriate to leave this, the more important part of music, with a quotation from Maeterlinck's inexhaustibly beautiful "Essay on Silence": "It is idle to think," he observes, "that by means of words any real communication can ever pass from one man to another. Were I to speak to you at this moment of the gravest things of all—of love, death, or destiny—it is not love, death, or destiny that I should touch; and, my efforts notwithstanding, there would remain between us always a truth which has not been spoken." Music can contribute more to the filling up of this great silence than any other art; and of the five senses of Music—Melody, Harmony, Form, Rhythm, and Tone-colour—it is HARMONY, more than any other, which takes us NEAREST TO THE EDGE OF THE INFINITE.

APPENDIX I

EXERCISES

Anything of the nature of a graduated course of Exercises covering the whole ground of the text would be outside the scope of the present work. The following exercises are designed to suggest some of the lines which the student may follow in essaying a more practical acquaintance with the present-day harmonic technique. Many of the exercises are modelled on well-known works.

I

BASSES

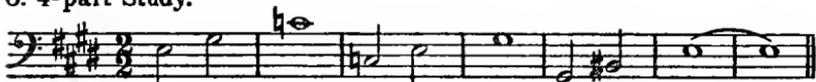
1. Harmonise for Pf. Org. or Orch, and add 11 more bars.

Alla marcia

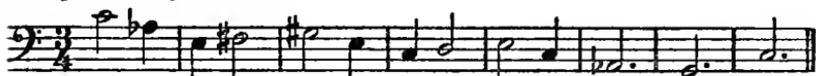
5. Write a short Fugato of 30 bars for Pf. or String Quartet on the following Subject. Take E as the centre.



6. 4-part Study.



7. 3-part Study.



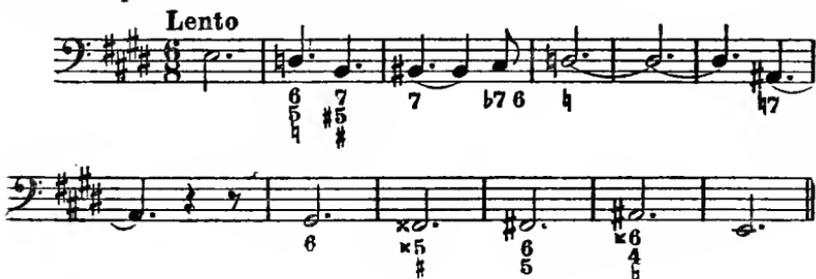
8. 5-part Study.



9. Harmonic Study.



10. Treat the following as a Bass for a Soprano Song (without words) to Pf. accpt.



11. Harmonise the following for Pf. in the "whole-tone" system, C to C, (except for the last 2 bars).

12. Harmonise for String Quartet.

13. Treat the following as a ground-bass for Pf. for 16 bars. Add 16 bars diatonic work for Trio and then repeat the "whole-tone" portion.

Scherzando

14. Harmonise for String Quartet.

Poco agitato

15. Write a Vocal melody with Pf. acct. over the following:—

16. Harmonise for Pf. (Chords):-

mf *cresc.*

9 7 3 b7 b b7 b7 b7 b #9 7 3 b7 b7 #7 #5 b7 b #7 b7

f

b7 #5 7 b5 7 # #9 8 #8 #7 b9 6 9 #8 9 6 9 #7 5 3

17. Harmonise for Full Orch. for Pf. or for Organ.

Molto allegro

19. Harmonise for Organ.

Poco allegro

Pedal.



20. Harmonise the following for Full Orchestra.

Allegro con brio, ma non troppo

Orch. Str. & Brass Bases



21. Harmonise the following for String Quartet.

Larghetto


II MELODIES

22. Harmonise for String Quartet.

Andante

23. Harmonise for Full Orchestra, for Pf. duet or for Organ.

Allegro con brio

24. Harmonise and extend the following, with "Impressionistic outlining"

Andantino con moto

25. Harmonise the following melody for strings, without disturbing the feeling of a C tonic.

Andantino soave

26. Add 6 bars to the following melody and then harmonise in the "whole-tone" system.

Andantino

(Pf.)

27. Harmonise for String Quartet.

Vivace

Vn. I. *f* *ff*

28 Harmonise for String Sextet. (2 Violins 2 Violas and 2 Cellos).

III. FIGURES AND CHORDS

29. Develop the following "Bridge-passage" for about 20 bars leading to a return of E flat minor.

Molto agitato

The notation for exercise 29 consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is 2/2. The music begins with a half rest followed by a quarter rest, then a series of chords and eighth notes. The first measure has a half rest in the treble and a half note chord in the bass. The second measure has a quarter rest in the treble and a half note chord in the bass. The third measure has a quarter note chord in the treble and a half note chord in the bass. The fourth measure has a quarter note chord in the treble and a half note chord in the bass. The fifth measure has a quarter note chord in the treble and a half note chord in the bass. The sixth measure has a quarter note chord in the treble and a half note chord in the bass. The seventh measure has a quarter note chord in the treble and a half note chord in the bass. The eighth measure has a quarter note chord in the treble and a half note chord in the bass. The piece ends with a double bar line and the word "etc." written to the right.

30. Add Bass and continue in the following style for Pf.

Poco lento alla Valse

The notation for exercise 30 is a single staff in treble clef. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is 3/4. The melody consists of a series of chords and eighth notes. The first measure has a quarter note chord, a quarter note chord, and a quarter note chord. The second measure has a quarter note chord, a quarter note chord, and a quarter note chord. The third measure has a quarter note chord, a quarter note chord, and a quarter note chord. The fourth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The fifth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The sixth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The seventh measure has a quarter note chord, a quarter note chord, and a quarter note chord. The eighth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The piece ends with a double bar line and the word "etc." written to the right.

31. Write a short Prelude in 10-8 time, commencing thus:-

Con due Pedale pp

The notation for exercise 31 consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is 10/8. The music begins with a half rest followed by a quarter rest, then a series of chords and eighth notes. The first measure has a half rest in the treble and a half note chord in the bass. The second measure has a quarter rest in the treble and a half note chord in the bass. The third measure has a quarter rest in the treble and a half note chord in the bass. The fourth measure has a quarter rest in the treble and a half note chord in the bass. The fifth measure has a quarter rest in the treble and a half note chord in the bass. The sixth measure has a quarter rest in the treble and a half note chord in the bass. The seventh measure has a quarter rest in the treble and a half note chord in the bass. The eighth measure has a quarter rest in the treble and a half note chord in the bass. The piece ends with a double bar line and the word "etc." written to the right.

32. Write a "Lied ohne Worte" for Pf. in 7-8 time with the following accompaniment figure:-

The notation for exercise 32 is a single staff in bass clef. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is 7/8. The accompaniment figure consists of a series of chords and eighth notes. The first measure has a quarter note chord, a quarter note chord, and a quarter note chord. The second measure has a quarter note chord, a quarter note chord, and a quarter note chord. The third measure has a quarter note chord, a quarter note chord, and a quarter note chord. The fourth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The fifth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The sixth measure has a quarter note chord, a quarter note chord, and a quarter note chord. The seventh measure has a quarter note chord, a quarter note chord, and a quarter note chord. The piece ends with a double bar line.

33. Write a short Melody for Piano with the following accompaniment figure:-

Andante con duolo

34. Add an extended harmonic theme below the following pedal-figure. Write for Orchestra or Pf. duet.

35. Write several passages of "Impressionist" chordal successions on the following rhythm for "Primo" part, Piano duet, afterwards adding a free part for "Secondo" player.

36. Write pieces for Violin and Pf. on the following rhythms:-



And on this:-



37. Write a short Piece for Pf. solo, including the following Chords:-



38. Compose short Studies of 8 or 16 bars in Bi-planal Harmony on the following combinations. Transpose as required.



39. Compose Bi-planal or Tri-planal Polytony on each of the following series.



40. Compose several Miniature pieces for Pf. as Harmonic Studies of the Chords of the "2nd and 4th," and of the "3rd and 4th" as used in Debussy's "Chansons de Bilitis" and "The Childrens Corner."

41. Compose several themes securing "modal feeling" by the use of successions of minor chords.

IV

MUSICAL FORM

42. Compose several Miniatures of 16 bars, modelled on the short Prelude of Scriabine, Ex. 398.

43. Analyse the following pieces:-

- (a) Scriabine's Seventh Pf. Sonata. (*Belaieff*).
- (b) Debussy's "L'Après-midi d'un faune." (*Fromont*).
- (c) Schönberg's Five Pieces for Orchestra, Op. 16. (*Peters*).
- (d) Ravel's "Gaspard de la nuit." (*Durand*).
- (e) Strauss "Ein Heldenleben." (*Leuckart*).
- (f) Delius' "Appalachia" Variations. (*Harmonie*).
- (g) Cyril Scott's Impressions from the Jungle Book. (*Schott*).
- (h) Florent Schmitt "Crépuscules." (*Augener*).

44. Compose 6 representative themes for tone-poems on each of the following subjects:-

- (a) Shakespeare's "Cymbeline."
- (b) Shelley's "Atalanta."
- (c) Euripides' "Hippolytus."
- (d) Euripides' "Iphigenia in Tauris."
- (e) Tennyson's "In Memoriam."
- (f) The Song of Solomon.
- (g) Omar Khayyam.
- (h) Longfellow's "Hiawatha." etc.

V ORCHESTRATION

45. Invent some eleven-part chords in orchestral tone-colour, similar to that in Schönberg's "Erwartung," given in Example N^o 403.

46. Analyse the following passage from Delius' "Appalachia," then orchestrate it. *Mysterioso lento*

The musical score is written for piano and consists of four systems of staves. The first system includes the instruction *pp ed espress.* and the tempo marking *Mysterioso lento*. The score features complex, chromatic chordal textures with various accidentals and dynamic markings. The notation includes treble and bass clefs, a 3/4 time signature, and a key signature of two flats. The music is characterized by dense, overlapping chords and melodic lines, typical of Delius's style.

APPENDIX II

GLOSSARY OF TECHNICAL TERMS

A

- Absolute music**, music without programme; non-descriptive.
- Absolute pitch**, the definition of pitch by a fixed number of vibrations—for instance, Middle C 256 per second.
- Absolute pitch, gift of**, the ability to name notes merely by hearing them.
- Absolute rate**, a fixed number of beats to the minute; thus $\text{♩} = 120$.
- Absolutists**, the followers of absolute music as opposed to programme music (*q.v.*).
- Acoustic**, relating to the influence of a building on the conduct of sound.
- Adagio**, very slowly.
- Added sixth**, a major common chord *plus* the sixth.
- Ad libitum** (Italian), at the performer's pleasure.
- Æolian mode**, a modal scale, from C to C on the pianoforte.
- Allegretto**, rather quick.
- Allegretto ben moderato**, not too quick; well in hand.
- Allegretto cantabile**, rather quickly and in a singing manner.
- Allegretto con dolezza**, lively, but with some sadness.
- Allegretto semplice**, rather quick, and simple in feeling.
- Allegro assai**, very fast.
- Allegro con brio**, quickly, with life.
- Allegro con moto**, with some motion.
- Allegro espressivo**, quick, but with expression.
- Allegro giocoso**, quickly and gaily.
- Allegro ma non troppo**, not too quickly.
- Allegro moderato**, moderately quick.
- Allegro molto energico**, very quick and energetic.
- Allegro non troppo**, not too quick.
- Allegro vivace**, swiftly.
- "Also sprach Zarathustra," a tone-poem by Strauss, based on ideas from Nietzsche's philosophy with this title.
- Analysis of music**, the explanation of form with regard to movements and of the origin of chords.
- Andante**, gently moving.
- Andante amabile**, rather slow and sweet.
- Andante cantabile**, slow and with a singing style.
- Andante espressivo**, slow and soothingly.
- Andante maestoso**, slow and majestic.
- Andante sostenuto**, slow and sustained.
- Andantino**, rather slow; a shade faster than *andante*.
- Annotated programmes**, programmes with items explained in short paragraphs.
- Appoggiatura**, an accented passing-note.
- Approach chord**, the chord preceding a more important one.

Arpeggio, the notes of a chord played separately.

Assez doux, mais d'une sonorité, very sweetly, but with a broad tone.

Atmospheric, with a very decided feeling of the particular mood.

A tre battute, in three-bar rhythm.

Auditorium, the space provided for the seating of the audience.

Augmented fourths, the intervals a semitone larger than the perfect fourth; for example, from C to F sharp.

Augmented triad, a triad with an augmented fifth.

Au movement, with motion (*con moto*).

Aural-mental, a sort of sixth sense; perhaps a subtle combination of psychological and physiological powers.

B

Barring, the measuring of music into regular groups of beats or pulses.

Beat, a pulse in music.

Brass, the brass section of the orchestra—viz., trumpets, trombones, and horns.

Bridge passages, parts of a composition connecting the themes, to which they are subsidiary.

C

C, the note in the second space of the bass staff.

CC, the note on the second line below the bass staff.

CCC, the note an octave below CC.

Cacophonous, objectionably discordant.

Cacophony, unæsthetic discord.

Cadences, certain chord combinations which divide the phrases in music and give the effect as of commas, full stops, etc.

Cadential effect, the effect produced by varying the ordinary forms of cadences.

Cadenza, a brilliant passage introduced during the performance of a piece as a display of technical skill.

Cataclysmal power, hugely sonorous.

Chamber music, music for a small concert or private salon—always one instrument to a part.

Characteristic intervals, notes specially characteristic of any one scale.

Characteristic notation, special ways of writing chords.

Chord structure, the building of chords upwards from a note of a scale.

Chordal vocabulary, knowledge of various chords.

Chromatic, an altered diatonic note.

Chromatic chords, chords foreign to a key, which may, however, be used without modulation.

Chromatic resolution, the resolution of a discord in some way foreign to that from which it is really derived.

Classical, a term often used either very loosely or narrowly, but applied by people of broad-minded views to the masterpieces of any age.

Cohesion of scale material, a clear definition of the scale used in a composition.

Colour sensation, the special appeal of the *timbre*.

Combination, combining of chords, notes, instruments, etc.

Common chord, an addition of major or minor third and perfect fifth to any given note.

Complicated technique, the application of many elements—harmony, counterpoint, instrumentation, etc.

Conjunct, by step from one note to the next above or below.

Con moto perpetuo, with continuous movement.

Consecutive seconds, the interval of the second sounded in two successive chords by the same two parts.

Consecutive "six-fours," two common chords in the second inversions used in succession.

Consonant, agreeable to the ear, as distinguished from dissonant.

Contrapuntal, the combination of two or more melodies.

Contrary movement, moving in opposite directions.

D

Dance suite, a series of dance tunes, all with the same keynote.

Derivation, origin.

Diaphony, a crude method of early harmony by fourths and fifths.

Diatonic, a scale system of two "tetrachords" (*q.v.*).

Diatonically, keeping to the notes of the diatonic scale, major or minor.

Diatonic concord, a concord formed by notes belonging to the scale on which the piece is written.

Diatonic genus, founded on a scale system of two "tetrachords" (*q.v.*).

Diatonic imitation, imitation of any particular part without employing notes outside the limits of the scale.

Diminished fifth, the interval a semitone less than a minor fifth.

Diminution, the same melody sounded in notes of shorter value.

Disjunct, movement by skip, as contrasted with conjunct motion.

Disjunct tritone, the fourth, fifth, sixth and seventh degrees of the major or minor scale.

Dissonances, discords.

Divisi, divide, each instrument, or group of instruments, taking a separate part.

Dolce, sweetly.

Doloro, with grief.

Dominant, the fifth degree of a major or minor scale.

Dominant generator, the dominant as the origin of a natural chordal series.

Dorian sixth, the major sixth from the Tonic of a minor key.

Doubled seventh, the seventh of a chord sounded by two parts at the same time.

Driving notes, notes brought forward in time, just as Suspensions are notes held back.

Duodecuple, twelve equal divisions to the octave.

Duple, in twos.

E

Effects of immensity, very large or grand chords of broad effect.

Ein Musikalischer Spass, a musical joke.

Elasticity of technique, perfect mastery of sounds.

Elision, the omission of any part.

Emotional effects, musical effect of sadness, gaiety, anger, grief.

Empirical methods, methods discovered by tentative experiment; in logic, the Pragmatic method.

Energico, with energy.

Enharmony, harmony in which the notation is changed while the pitch remains the same.

Equal chords, chords whose notes are exactly equidistant.

Equal steps, steps of equal distance.

Equal temperament, all keys tuned equally well. See Unequal temperament

Equale, equal; exactly alike.

Etwas langsam, rather slowly.

Evaporating discords, discords left unresolved, which vanish in silence.

Expressional school, the composers who put expression before everything else.

Extended discord, a discord carried high into the upper partials.

F

- False notation**, the use of accidentals employing the same pitch as C sharp for D flat.
- False relations**, two chromatic notes appearing in successive chords sung by different parts.
- Feminine ending**, ending on a weak beat.
- Final cadence**, the chords used at the end of a piece.
- Fixed key**, often Dominant and Tonic.
- Flat supertonic**, the second note of a major scale lowered a semitone.
- Folk music**, traditional music, often unwritten down and handed on orally.
- Form**, the musical shape in which things appear.
- Forte**, loud.
- Fortissimo**, very loud.
- Foundation note**, the root of a chord; the note on which a chord is founded.
- French school**, having reference to the music of French composers.
- Fundamental chords**, chords formed after the natural law on the tones of harmonics, or upper partial tones.
- Furioso**, with fury.

H

- Harmonically**, with reference to notes sounded together in combination.
- Harmonic colour**, the rich effects produced by varied harmonies.
- Harmonic perception**, the trained following of harmony.
- Harmonic rays**, the harmonic colour brought about by particular combinations.
- Harmonic series**, the natural notes produced by a horn or trumpet.
- Harmonic "study"**, a piece formed upon a particular chord.
- Harmonic tissue**, a harmonic com-

ination strong in "forward movement" tendencies.

- "Heldenleben"**, a tone-poem by Strauss depicting incidents in his own career. Literally "A Hero's Life."
- Hidden fifths**, the interval of a sixth followed by that of a fifth, both parts moving up or down one degree.
- High-pressure pipes**, pipes of an organ requiring a heavy pressure or wind.
- Horizontal thinking**, the regarding of music as a combination of melodies from left to right.
- "Horn-fifths"**, the interval of a perfect fifth sounded by the harmonic laws on natural horns.

I

- Idiom**, a certain stereotyped harmonic or melodic progression.
- Impressionistic**. (See Chapter X.)
- Inferior resonance**, reckoning down the series of harmonics instead of upwards.
- Instrumental**, appertaining to instruments.
- Introduction**, a prelude to any musical performance.
- Inversions**, the varying position of chords when the bottom note is removed and placed at the top.
- Irato**, with angry, stormy tones.

K

- Kaleidoscopic colouring**, continued change of tone-colour from beat to beat.
- Kammer-Symphonie**, a piece for a large number of orchestral instruments with only one player to a part. (See Chamber music.)
- Key-balance**, the use of certain special keys in order to avoid vagueness of tonality in a piece.
- Key-signature**, the sharps or flats placed directly after the clef sign.
- Klar.**, short for klarinet (clarinet).

L

- Laissez vibrer**, leave sustaining pedal on.
- Largamento**, very slowly and with broad tone.
- Larghetto**, not so slow as *largo*.
- Largo e mesto**, slow and sad.
- Largo sostenuto cantabile**, slow, sustained, and in a singing manner.
- Legato**, smoothly.
- Leggiero**, lightly.
- Leit-motiv**, theme.
- Lento**, slow.
- Lento con calma**, slow and calm.
- Lento molto tranquillo**, slow and very tranquilly.
- Lento sostenuto cantabile**, slow, sustained, and in a singing style.
- "**Le Rouet d'Omphale**," the Spinning-wheel of Omphale, a Queen of Lydia, whom Hercules served.
- "**Le Sacre du Printemps**," the Rite of Springtime.
- Lowest parts**, parts sounded by the instruments or voices placed lowest in pitch.
- Lusingando**, dying away; losing itself.

M

- Major sixth**, the interval of the same distance as that from the first note of a major scale to the sixth.
- Major triad**, a combination of a similar formation to the combination of the first, third, and fifth notes of the major scale.
- Marcatissimo**, well marked.
- Marcato**, marked.
- Masculine ending**, ending on a strong beat.
- Mässig**, moderate.
- Mässig bewegt**, with moderate movement.
- Mässig langsam**, moderately slow.
- Mediæval harmony**, the harmony of mediæval times—*i.e.*, modal.
- Melismæ**, a decorative group of notes of no fixed time, generally played lightly and quickly.

- Melodic lengths**, a sentence of melodic notes.
- Melodic lines**, the arrangement of rise and fall in melody.
- Melodically**, the forward movement in time, of a single part.
- Metamorphosis**, the reappearance of a melody in a different shape or form.
- Middle cadences**, cadences, in the middle of a piece, which avoid a full close or finish.
- Minor chords**, chords with a minor or lesser third.
- Minor seconds**, the intervals a semitone less than major second, as C to D flat.
- Minor sixth**, an interval a semitone less than a major sixth.
- "**Mirror**" idea, harmony worked from the middle, outwards in both directions.
- Mistico**, mysteriously.
- Modal melody**, a melody formed by the notes of a modal scale.
- Modal system**, according to the old modes or scales.
- Mode**, the quality or kind of scale.
- Moderato**, in moderate time.
- Moderé** (French), in moderate time.
- Modern technique**, the scientific and acquired parts of the composer's training.
- Modernity**, appertaining to modern methods.
- Molto adagio**, very slowly.
- Molto moderato**, very moderate in speed.
- Molto tranquillo, e sostenuto**, very tranquil and sustained.
- Molto vivace**, very quickly.
- Mood**, a state of feeling.
- Muted horns**, horns played with a device arranged to soften the tone. The mutes at the same time produce a strange weird tone-colour.
- Muted strings**, stringed instruments with the mute attached, to veil the tone.

N

- Native scales**, scales other than European.
- Nocturne**, a piece with a quiet, contemplative, reposeful feeling.
- Notational system**, system of writing notes of different pitch.
- Note-communism**, all notes equal in importance.
- Noted**, written down in musical notation.

O

- Obscuring of tonality**, the temporary obliteration of the feeling of the key in which a piece is written.
- Octave**, the eighth note in a diatonic scale above a given one; it has the same alphabetical name.
- Omar Khayyám**, a Persian poet.
- Opus number**, the order in which a composer's works are published.
- Orchestra**, a certain balanced collection of string, wood-wind, brass, and percussion instruments.
- Orch. Bassi**, orchestral double basses (string family).
- Outlining**, to strengthen a certain part by adding in octaves, fourths, fifths, or common chords, etc.

P

- Parallel fifths**, the interval of a fifth sound by the same two parts in two successive chords.
- Part**, a single line of sound, with forward movement in the time-dimension.
- Passing-notes**, notes which do not form any part of the chords.
- Pas trop lent**. Not too slow.
- Pathetic cadence**, a perfect cadence preceded by a chord containing a flattened supertonic.
- Pedal**, in harmony, a holding note; on the organ, a keyboard played by the feet.
- Pedal-chord**, a long holding chord, over which other parts are moving.

- Pedal drum-roll**, a "roll" on a long holding note.
- Pentatonic scale**, a scale formed of five notes.
- Pesante**, heavily.
- Phrases**, the various divisions of two or more bars, into which music is divided.
- Phrygian mode**, an ancient scale represented on the piano by the white notes E to E.
- Pitch**, the height or depth of sound.
- Pitch position**, the high or low placing of a note.
- Plagal**, modes.
- Poco lento**, rather slowly.
- Polytony**, a new system of harmony.
- Post-Impressionism**, an altogether free and very personal style of composition. The opposite of Realism.
- Prelude**, a piece preceding any longer movement.
- Preparation**, the sounding of a note belonging to a chord before sustaining it as a discord in the following chord.
- Prestissimo**, as quickly as possible.
- Programme music**, music depicting certain definite thoughts, actions, or scenes.
- Pure temperament**, tuning notes by the perfectly natural law.

Q

- Quality of intervals**, the varying width of intervals according to the number of semitones.

R

- Rall. molto**, a broad, graduated slackening in time.
- Realist**, a composer who aims first and foremost at verity and exact reproduction.
- Recherché chords**, rare and delicately arranged combinations.
- Reflection**, the working of harmony from the middle, outwards in both directions. (See *Mirroring*.)

Regulated pulsation, forward movement in time-duration.
Rendering, performance; mode of interpretation of music.
Resolution, the procedure of a discord to the concord which satisfactorily follows it.
Resolution chord, the chord on which a discord resolves.
Rhythm, the regular recurrence of accents and the arrangement of sentences.
Rhythmical influence, the influence of accents and phrases and the arrangement of sentences.
Romantic movement, the fertilization of the musical impulse by literature, which began with Schumann.
Romanticist, a composer of the Romantic school.

S

Sans hâte et noblement, without haste, and with great dignity.
Scalar, scalewise; by melodic step.
Scale effeteness, a scale worn threadbare.
Scale material, the individual notes of a scale.
Scale motion, melodic motion by step.
Scalewise, by melodic step.
Scherzando, playfully.
Schnell, fast.
Segue simili, to be played or sung in a similar manner.
Sehr lebhaft, very fast.
Sehr rasch, very impetuously.
Semichorus, half, or a part only of the singers.
Semitone, a twelfth part of the octave.
Semplice, simply.
Sempre ritard, always slow.
Sempre rubato, always with artistic time-placing.
Sentences, melodic lengths or divisions in a piece of music.

Sequences, the same progressions or intervals used again on other degrees of the scale.
Sequencing, or sequential progression, progression by sequence, more or less exact.
Sextuple, a beat divided into six equal parts.
Similar motion, parts moving in the same direction.
Sonata-form, the form in which the first movement of a sonata is generally written.
Song cycles, a set of songs with a more or less definite connection.
Spiritoso, spiritedly.
Staccato, short and crisp.
Staccatoing, playing or singing in a short, distinct manner.
Strings, violins, violas, 'celli, etc.
Subdominant, fourth degree of a diatonic scale.
Subito, quickly; suddenly.
Subjects, the themes around which a movement is built.
Superposition of thirds, thirds placed one above another.
Suspensions, the holding of a note into another chord to which it does not belong.
Sympathetic vibration, the vibration of a second note in unison or in some harmonic relation, set in motion automatically by the vibration of the first.
Symphony, a series of three or four movements for orchestra according to some definite scheme.

T

Technique, technical equipment; in harmony—mastery of musical sound.
Temperament, a system of tuning.
Tempo de mazurka, in the time of a mazurka.
Tetrachord, a group of four scale notes, two tones and a semitone.

Theorist, one who works on theoretical lines.

Tierce de Picardie, the major third with which a composition in the minor key often ends.

Timbre, the quality of a sound.

Timbre - creating, affecting the quality of a composite sound.

Tinting, adding extra notes, not of first importance in the chord.

Toccata, a piece displaying "touch" on a keyed instrument.

Tonal centre, the Tonic or keynote of any passage.

Tonal chords, chords formed on the "tonal scale." (See Chapter V.)

Tonal colour, the varying effects produced by different combinations of tone.

Tonal combinations, chords formed from the tonal scale.

Tonal harmony. See Tonal chords.

Tonal principle, the abolition of semitones.

Tonal progression, movement on a scale of whole tones.

Tonal scale, all tones, no semitones.

Tone. a sixth part of the octave.

Tone-poem, a piece written with regard to effects of tone-colour.

Transposition, the placing of a melody high or lower in the scale.

Très lent, very slow.

Triad formation, formation of common chords by adding third and fifth to any given note.

Triads, common chords.

Triple, in threes.

Tritone, three whole tones in melodic succession.

Tutti, full; all the instruments or the voices.

Twelve-note scale, a scale of twelve semitones, but not formed by alteration of the diatonic scale. See Duodecuple.

U

Una corda, on one string instead of three; soft pedal of piano.

Undamped chords, chords allowed to vibrate freely.

Undamped strings, strings allowed to vibrate freely.

Unequal fourths, fourths of different width or quality.

Unequal temperament, a system of tuning by which certain common keys were nearly perfect, whilst the rarer keys were very false.

V

Vague tonality, doubtful as to key.

Viols, stringed instruments.

Virginals, the old type of keyboard-instrument used in Elizabethan times.

Vivace, lively.

Vivacissimo, quicker than vivace.

Vivo, vivaciously.

Vocal, appertaining to the voice.

Volume, quantity in relation to sound.

W

Wagnerian, in the style of Wagner. Rich, masterly harmony, with the adoption of the *leit-motif* principle as the chief element of form.

Weak beat, an unaccented beat or pulse.

Whole-tone scale, a scale consisting entirely of tones, frequently called the "tonal" scale.

Wood-wind, wind instruments made of wood, as flute, clarinet, oboe, fagotto.

Wotan motiv, the theme given to Wotan, the chief of the gods, in Wagner's opera "The Ring."

Z

Ziemlich langsam, somewhat slow.

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