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PRINCIPLES OF ORCHESTRATION

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Table of Contents

Extract from the Author’s Preface (1891).

Table of Contents

Our epoch, the post-Wagnerian age, is the age of brilliance and imaginative quality in orchestral tone colouring. Berlioz, Glinka, Liszt, Wagner, modern French composers—Delibes, Bizet and others; those of the new Russian school—Borodin, Balakirev, Glazounov and Tschaikovsky—have brought this side of musical art to its zenith; they have eclipsed, as colourists, their predecessors, Weber, Meyerbeer and Mendelssohn, to whose genius, nevertheless, they are indebted for their own progress. In writing this book my chief aim has been to provide the well-informed reader with the fundamental principles of modern orchestration from the standpoint of brilliance and imagination, and I have devoted considerable space to the study of tonal resonance and orchestral combination.

I have tried to show the student how to obtain a certain quality of tone, how to acquire uniformity of structure and requisite power. I have specified the character of certain melodic figures and designs peculiar to each instrument or orchestral group, and reduced these questions briefly and clearly to general principles; in short I have endeavoured to furnish the pupil with matter and material as carefully and minutely studied as possible. Nevertheless I do not claim to instruct him as to how such information should be put to artistic use, nor to establish my examples in their rightful place in the poetic language of music. For, just as a handbook of harmony, counterpoint, or form presents the student with harmonic or polyphonic matter, principles of construction, formal arrangement, and sound technical

methods, but will never endow him with the talent for composition, so a treatise on orchestration can demonstrate how to produce a well-sounding chord of certain tone-quality, uniformly distributed, how to detach a melody from its harmonic setting, correct progression of parts, and solve all such problems, but will never be able to teach the art of poetic orchestration. To orchestrate is to create, and this is something which cannot be taught.

It is a great mistake to say: this composer scores well, or, that composition is well orchestrated, for orchestration is *part of the very soul of the work*. A work is thought out in terms of the orchestra, certain tone-colours being inseparable from it in the mind of its creator and native to it from the hour of its birth. Could the essence of Wagner's music be divorced from its orchestration? One might as well say that a picture is well *drawn* in colours.

More than one classical and modern composer has lacked the capacity to orchestrate with imagination and power; the secret of colour has remained outside the range of his creative faculty. Does it follow that these composers do not *know how* to orchestrate? Many among them have had greater knowledge of the subject than the mere colourist. Was Brahms ignorant of orchestration? And yet, nowhere in his works do we find evidence of brilliant tone or picturesque fancy. The truth is that his thoughts did not turn towards colour; his mind did not exact it.

The power of subtle orchestration is a secret impossible to transmit, and the composer who possesses this secret should value it highly, and never debase it to the level of a mere collection of formulæ learned by heart.

Here I may mention the case of works scored by others from the composer's rough directions. He who undertakes such work should enter as deeply as he may into the spirit of the composer, try to realise his intentions, and develop them in all their essential features.

Though one's own personality be subordinate to that of another, such orchestration is nevertheless creative work. But on the other hand, to score a composition never intended for the orchestra, is an undesirable practice. Many musicians have made this mistake and persist in it.[4] In any case this is the lowest form of instrumentation, akin to colour photography, though of course the process may be well or badly done.

As regards orchestration it has been my good fortune to belong to a first-rate school, and I have acquired the most varied experience. In the first place I have had the opportunity of hearing all my works performed by the excellent orchestra of the St. Petersburgh Opera. Secondly, having experienced leanings towards different directions, I have scored for orchestras of different sizes, beginning with simple combinations (my opera *The May Night* is written for natural horns and trumpets), and ending with the most advanced. In the third place, I conducted the choir of the Military Marine for several years and was therefore able to study wind-instruments. Finally I formed an orchestra of very young pupils, and succeeded in teaching them to play, quite competently, the works of Beethoven, Mendelssohn, Glinka, etc. All this has enabled me to present this work to the public as the result of long experience.

As a starting-point I lay down the following fundamental axioms:

I. *In the orchestra there is no such thing as ugly quality of tone.*

II. *Orchestral writing should be easy to play*; a composer's work stands the best chance when the parts are well written.[5]

III. *A work should be written for the size of orchestra that is to perform it*, not for some imaginary body, as many composers persist in doing, introducing brass instruments in unusual keys upon which the music is impracticable because it is not played in the key the composer intends.

It is difficult to devise any method of learning orchestration without a master. As a general rule it is best to advance by degrees from the simplest scoring to the most complicated.

The student will probably pass through the following phases: 1. the phase during which he puts his entire faith in percussion instruments, believing that beauty of sound emanates entirely from this branch of the orchestra—this is the earliest stage; 2. the period when he acquires a passion for the harp, using it in every possible chord; 3. the stage during which he adores the wood-wind and horns, using stopped notes in conjunction with strings, muted or *pizzicato*; 4. the more advanced period, when he has come to recognise that the string group is the richest and most expressive of all. When the student works alone he must try to avoid the pitfalls of the first three phases. The best plan is to study full-scores, and listen to an orchestra, score in hand. But it is difficult to decide what music should be studied and heard. Music of all ages, certainly, but, principally, that which is fairly modern. Fairly modern music

will teach the student how to score—classical music will prove of negative value to him. Weber, Mendelssohn, Meyerbeer (*The Prophet*), Berlioz, Glinka, Wagner, Liszt, and modern French and Russian composers—these will prove his best guides. It is useless for a Berlioz or a Gevaert to quote examples from the works of Gluck. The musical idiom is too old-fashioned and strange to modern ears; such examples are of no further use today. The same may be said of Mozart and of Haydn (the father of modern orchestration).

The gigantic figure of Beethoven stands apart. His music abounds in countless leonine leaps of orchestral imagination, but his technique, viewed in detail, remains much inferior to his titanic conception. His use of the trumpets, standing out above the rest of the orchestra, the difficult and unhappy intervals he gives to the horns, the distinctive features of the string parts and his often highly-coloured employment of the wood-wind,—these features will combine causing the student of Beethoven to stumble upon a thousand and one points in contradiction.

It is a mistake to think that the beginner will light upon no simple and instructive examples in modern music, in that of Wagner and others. On the contrary, clearer, and better examples are to be found amongst modern composers than in what is called the range of classical music.

Extract from the Preface to the last edition.

Table of Contents

My aim in undertaking this work is to reveal the principles of modern orchestration in a somewhat different light than that usually brought to bear upon the subject. I have followed these principles in orchestrating my own works, and, wishing to impart some of my ideas to young composers, I have quoted examples from my own compositions, or given references to them, endeavouring to show, in all sincerity, what is successful and what is not. No one can know except the author himself the purpose and motives which governed him during the composition of a certain work, and the practice of explaining the intentions of a composer, so prevalent amongst annotators, however reverent and discreet, appears to me far from satisfactory. They will attribute a too closely philosophic, or excessively poetic meaning to a plain and simple fact. Sometimes the respect which great composers' names command will cause inferior examples to be quoted as good; cases of carelessness or ignorance, easily explained by the imperfections of current technique, give rise to whole pages of laborious exposition, in defence, or even in admiration of a faulty passage.

This book is written for those who have already studied instrumentation from Gevaert's excellent treatise, or any other well-known manual, and who have some knowledge of a number of orchestral scores.

I shall therefore only just touch on such technical questions as fingering, range, emission of sound etc.[6]

The present work deals with the combination of instruments in separate groups and in the entire orchestral scheme; the different means of producing strength of tone and unity of structure; the sub-division of parts; variety of colour and expression in scoring,—the whole, principally from the standpoint of dramatic music.

VOLUME I

Table of Contents

Chapter I. GENERAL REVIEW OF ORCHESTRAL GROUPS.

Table of Contents

A. Stringed Instruments.

The following is the formation of the string quartet and the number of players required in present day orchestras, either in the theatre or concert-room.

	Full orchestra	Medium orchestra	Small orchestra
Violins I	16	12	8
" II	14	10	6
Violas	12	8	4
Violoncellos	10	6	3
Double basses	8-10	4-6	2-3

In larger orchestras, the number of first violins may amount to 20 and even 24, the other strings being increased proportionately. But such a great quantity of strings overpowers the customary wood-wind section, and entails re-inforcing the latter. Sometimes orchestras contain less than 8 first violins; this is a mistake, as the balance between strings and wind is completely destroyed. In writing for the orchestra it is advisable to rely on a medium-sized body of strings. Played by a larger orchestra a work will be heard to greater advantage; played by a smaller one, the harm done will be minimised.

Whenever a group of strings is written for more than five parts—without taking double notes or chords into consideration—these parts may be increased by dividing

each one into two, three and four sections, or even more (*divisi*). Generally, one or more of the principal parts is split up, the first or second violins, violas or violoncellos. The players are then divided by desks, numbers 1, 3, 5 etc. playing the upper part, and 2, 4, 6 etc., the lower; or else the musician on the right-hand of each desk plays the top line, the one on the left the bottom line. Dividing by threes is less easy, as the number of players in one group is not always divisible by three, and hence the difficulty of obtaining proper balance. Nevertheless there are cases where the composer should not hesitate to employ this method of dividing the strings, leaving it to the conductor to ensure equality of tone. It is always as well to mark how the passage is to be divided in the score; Vn<u>s</u> I, 1, 2, 3 desks, 6 'Cellos div. à 3, and so on. Division into four and more parts is rare, but may be used in *piano* passages, as it greatly reduces volume of tone in the group of strings.

> *Note.* In small orchestras passages sub-divided into many parts are very hard to realise, and the effect obtained is never the one required.

String parts may be divided thus:

a { Vn<u>s</u> I div. / Vn<u>s</u> II div. *b* { Vn<u>s</u> II div. / Violas div. *c* { Violas div. / 'Cellos div. *d* { 'Cellos div. / D. basses div.

Possible combinations less frequently used are:

e { Vn<u>s</u> I div. / Violas div. *f* { Vn<u>s</u> II div. / 'Cellos div. *g* { Violas div. / D. basses div. etc.

Note. It is evident that the tone quality in *b* and *e* will be similar. Still *b* is preferable since the number of Vn$_{s}$ II (14-10-6) and Violas (12-8-4) is practically the same, the respective rôles of the two groups are more closely allied, and from the fact that second violins generally sit nearer to the violas than the first, thereby guaranteeing greater unity in power and execution.

The reader will find all manner of divisions in the musical examples given in Vol. II. Where necessary, some explanation as to the method of dividing strings will follow in due course. I dwell on the subject here in order to show how the usual composition of the string quartet may be altered.

Stringed instruments possess more ways of producing sound than any other orchestral group. They can pass, better than other instruments from one shade of expression to another, the varieties being of an infinite number. Species of bowing such as *legato*, detached, *staccato*, *spiccato*, *portamento*, *martellato*, light *staccato*, *saltando*, attack at the nut and at the point,  and  (down bow and up bow), in every degree of tone, *fortissimo*, *pianissimo*, *crescendo*, *diminuendo*, *sforzando*, *morendo*—all this belongs to the natural realm of the string quartet.

The fact that these instruments are capable of playing double notes and full chords across three and four strings—to say nothing of sub-division of parts—renders them not only melodic but also harmonic in character.[7]

From the point of view of activity and flexibility the violin takes pride of place among stringed instruments, then, in

order, come the viola, 'cello and double bass. In practice the notes of extreme limit in the string quartet should be fixed as follows:

for violins:  , for viola:  ,

for 'cellos:  , for double basses:  .

Higher notes given in Table A, should only be used with caution, that is to say when they are of long value, in *tremolando*, slow, flowing melodies, in not too rapid sequence of scales, and in passages of repeated notes. Skips should always be avoided.

> *Note.* In quick passages for stringed instruments long chromatic figures are never suitable; they are difficult to play and sound indistinct and muddled. Such passages are better allotted to the wood-wind.

A limit should be set to the use of a high note on any one of the three lower strings on violins, violas and 'cellos. This note should be the one in the fourth position, either the octave note or the ninth of the open string.

Nobility, warmth, and equality of tone from one end of the scale to the other are qualities common to all stringed instruments, and render them essentially superior to instruments of other groups. Further, each string has a distinctive character of its own, difficult to define in words. The top string on the violin (*E*) is brilliant in character, that

of the viola (*A*) is more biting in quality and slightly nasal; the highest string on the 'cello (*A*) is bright and possesses a "chest-voice" timbre. The *A* and *D* strings on the violin and the *D* string on the violas and 'cellos are somewhat sweeter and weaker in tone than the others. Covered strings (*G*), on the violin (*G* and *C*), on the viola and 'cello are rather harsh. Speaking generally, the double bass is equally resonant throughout, slightly duller on the two lower strings (*E* and *A*), and more penetrating on the upper ones (*D* and *G*).

> *Note.* Except in the case of pedal notes, the double bass rarely plays an independent part, usually moving in octaves or in unison with the 'cellos, or else doubling the bassoons. The quality of the double bass tone is therefore seldom heard by itself and the character of its different strings is not so noticeable.

The rare ability to connect sounds, or a series of sounds, the vibration of stopped strings combined with their above-named qualities—warmth and nobility of tone—renders this group of instruments far and away the best orchestral medium of melodic expression. At the same time, that portion of their range situated beyond the limits of the human voice, e.g. notes on the violin higher than the extreme top note of the soprano voice, from

upwards, and notes on the double bass below the range of the bass voice, descending from

 (written sound)

lose in expression and warmth of tone. Open strings are clearer and more powerful but less expressive than stopped strings.

Comparing the range of each stringed instrument with that of the human voice, we may assign: to the violin, the soprano and contralto voice plus a much higher range; to the viola, the contralto and tenor voice plus a much higher register; to the 'cello, the tenor and bass voices plus a higher register; to the double bass, the bass voice plus a lower range.

The use of harmonics, the mute, and some special devices in bowing produce great difference in the resonance and tone quality of all these instruments.

Harmonics, frequently used today, alter the timbre of a stringed instrument to a very appreciable extent. Cold and transparent in soft passages, cold and brilliant in loud ones, and offering but little chance for expression, they form no fundamental part of orchestral writing, and are used simply for ornament. Owing to their lack of resonant power they should be used sparingly, and, when employed, should never be overpowered by other instruments. As a rule harmonics are employed on sustained notes, *tremolando*, or here and there for brilliant effects; they are rarely used in extremely simple melodies. Owing to a certain tonal affinity with the flute they may be said to form a kind of link between string and wood-wind instruments.

Another radical change is effected by the use of mutes. When muted, the clear, singing tone of the strings becomes

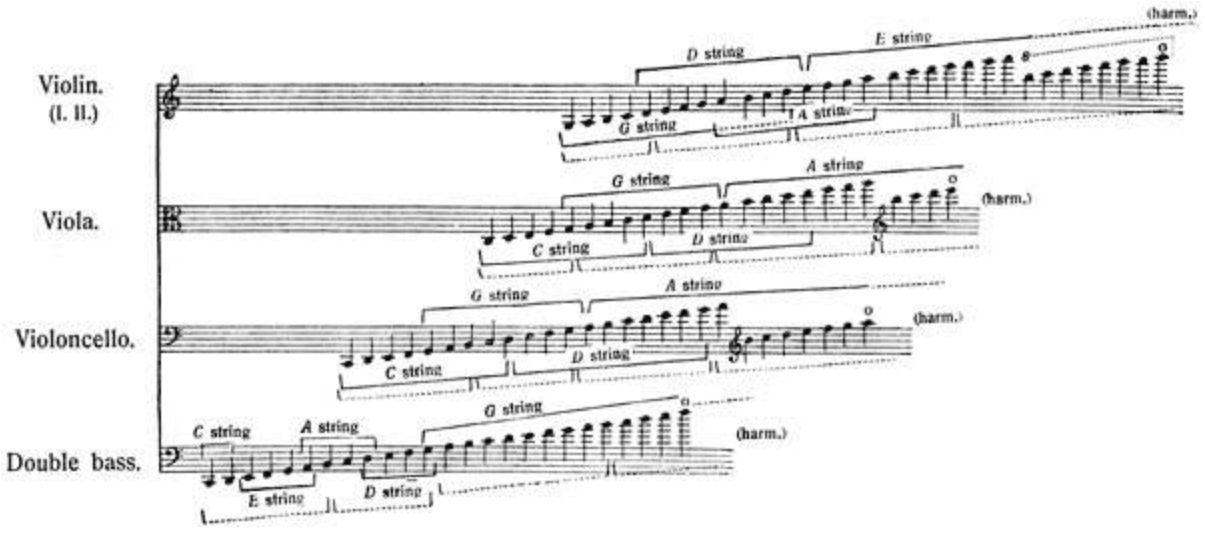
dull in soft passages, turns to a slight hiss or whistle in loud ones, and the volume of tone is always greatly reduced.

The position of the bow on the string will affect the resonance of an instrument. Playing with the bow close to the bridge (*sul ponticello*), chiefly used *tremolando*, produces a metallic sound; playing on the finger-board (*sul tasto*, *flautando*) creates a dull, veiled effect.

> *Note.* Another absolutely different sound results from playing with the back or wood of the bow (*col legno*). This produces a sound like a xylophone or a hollow *pizzicato*. It is discussed under the heading of instruments of little sustaining power.

Table A. String group.

(These instruments give all chromatic intervals.)



Black lines on each string denote the general range in orchestral writing, the dotted lines give the registers, low, medium, high, very high.

The five sets of strings with number of players given above produce a fairly even balance of tone. If there is any surplus of strength it must be on the side of the first violins, as they must be heard distinctly on account of the important part they play in the harmonic scheme. Besides this, an extra desk of first violins is usual in all orchestras, and as a general rule they possess a more powerful tone than second violins. The latter, with the violas, play a secondary part, and do not stand out so prominently. The 'cellos and double basses are heard more distinctly, and in the majority of cases form the bass in octaves.

In conclusion it may be said that the group of strings, as a melodic element, is able to perform all manner of passages, rapid and interrupted phrases of every description, diatonic or chromatic in character. Capable of sustaining notes without difficulty, of playing chords of three and four notes; adapted to the infinite variety of shades of expression, and easily divisible into numerous sundry parts, the string group in an orchestra may be considered as an harmonic element particularly rich in resource.

B. Wind instruments.

Wood-wind.

Apart from the varying number of players, the formation of the string group, with its five constituent parts remains constant, satisfying the demands of any orchestral full score. On the other hand the group of wood-wind instruments varies both as regards number of parts and the volume of tone at its command, and here the composer may choose at will. The group may be divided into three general classes: wood-wind instruments in pair's, in three's and in four's, (see table on page 13).

Arabic numerals denote the number of players on each instrument; roman figures, the parts (1st, 2nd etc.). Instruments which do not require additional players, but are taken over by one or the other executant in place of his usual instrument, are enclosed in brackets. As a rule the first flute, first oboe, first clarinet and first bassoon never change instruments; considering the importance of their parts it is not advisable for them to turn from one mouth-piece to another. The parts written for piccolo, bass flute, English horn, small clarinet, bass clarinet and double bassoon are taken by the second and third players in each group, who are more accustomed to using these instruments of a special nature.

Wood-wind in pair's	Wood-wind in three's	Wood-wind in four's

(II—Piccolo).	(III—Piccolo).	1 Piccolo (IV).
2 Flutes I. II.	3 Flutes I. II. III.	3 Flutes I. II. III.
	(II—Bass flute).	(III—Bass flute).
2 Oboes I. II.	2 Oboes I. II.	3 Oboes I. II. III.
(II—Eng. horn).	1 Eng. horn (III).	1 Eng. horn (IV).
	(II—Small clarinet).	(II—Small clarinet).
2 Clarinets I. II.	3 Clarinets I. II. III.	3 Clarinets I. II. III.
(II—Bass clarinet).	(III—Bass clarinet).	1 Bass clarinet (IV).
2 Bassoons I. II.	2 Bassoons I. II.	3 Bassoons I. II. III.
	1 Double bassoon (III).	1 Double bassoon (IV).

The formation of the first class may be altered by the permanent addition of a piccolo part. Sometimes a composer writes for two piccolos or two Eng. horns etc. without increasing the original number of players required (in three's or four's).

Note I. Composers using the first class in the course of a big work (oratorio, opera, symphony, etc.) may introduce special instruments, called *extras*, for a long or short period of time; each of these instruments involves an extra player not required throughout the entire work. Meyerbeer was fond of doing this, but other composers, Glinka for example, refrain from increasing the number of performers by employing *extras* (Eng. horn part in *Rousslân*). Wagner uses all three classes in the above table (in pair's: *Tannhäuser*—in three's: *Tristan*—in four's: *The Ring*).

Note II. Mlada is the only work of mine involving formation by four's. *Ivan the Terrible*, *Sadko*, *The Legend of Tsar Saltan*, *The Legend of the Invisible City of Kitesh* and *The Golden Cockerel* all belong to the second class, and in my other works, wood-wind in pair's is used with a varying number of extras. *The Christmas Night*, with its two oboes, and two bassoons, three flutes and three clarinets, forms an intermediate class.

Considering the instruments it comprises, the string group offers a fair variety of colour, and contrast in compass, but this diversity of range and timbre is subtle and not easily discerned. In the wood-wind department, however, the difference in register and quality of flutes, oboes, clarinets and bassoons is striking to a degree. As a rule, wood-wind instruments are less flexible than strings;

they lack the vitality and power, and are less capable of different shade of expression.

In each wind instrument I have defined the *scope of greatest expression*, that is to say the range in which the instrument is best qualified to achieve the various grades of tone, (*forte*, *piano*, *cresc.*, *dim.*, *sforzando*, *morendo*, etc.)—the register which admits of the most *expressive* playing, in the truest sense of the word. Outside this range, a wind instrument is more notable for richness of colour than for expression. I am probably the originator of the term "scope of greatest expression". It does not apply to the piccolo and double bassoon which represent the two extremes of the orchestral compass. They do not possess such a register and belong to the body of highly-coloured but non-expressive instruments.

The four kinds of wind instruments: flutes, oboes, clarinets and bassoons may be generally considered to be of equal power. The same cannot be said of instruments which fulfil a special purpose: piccolo, bass flute, Eng. horn, small clarinet, bass clarinet and double bassoon. Each of these instruments has four registers: low, middle, high and extremely high, each of which is characterised by certain differences of quality and power. It is difficult to define the exact limits of each register; adjacent registers almost blend together and the passage from one to another is scarcely noticeable. But when the instrument jumps from one register to another the difference in power and quality of tone is very striking.

The four families of wind instruments may be divided into two classes: a) instruments of nasal quality and dark resonance—oboes and bassoons (Eng. horn and double

bassoon); and b) instruments of "chest-voice" quality and bright tone—flutes and clarinets (piccolo, bass flute, small clarinet, bass clarinet).

These characteristics of colour and resonance—expressed in too simple and rudimentary a form—are specially noticeable in the middle and upper registers. The lower register of the oboes and bassoons is thick and rough, yet still nasal in quality; the very high compass is shrill, hard and dry. The clear resonance of the flutes and clarinets acquires something nasal and dark in the lower compass; in the very high register it becomes somewhat piercing.

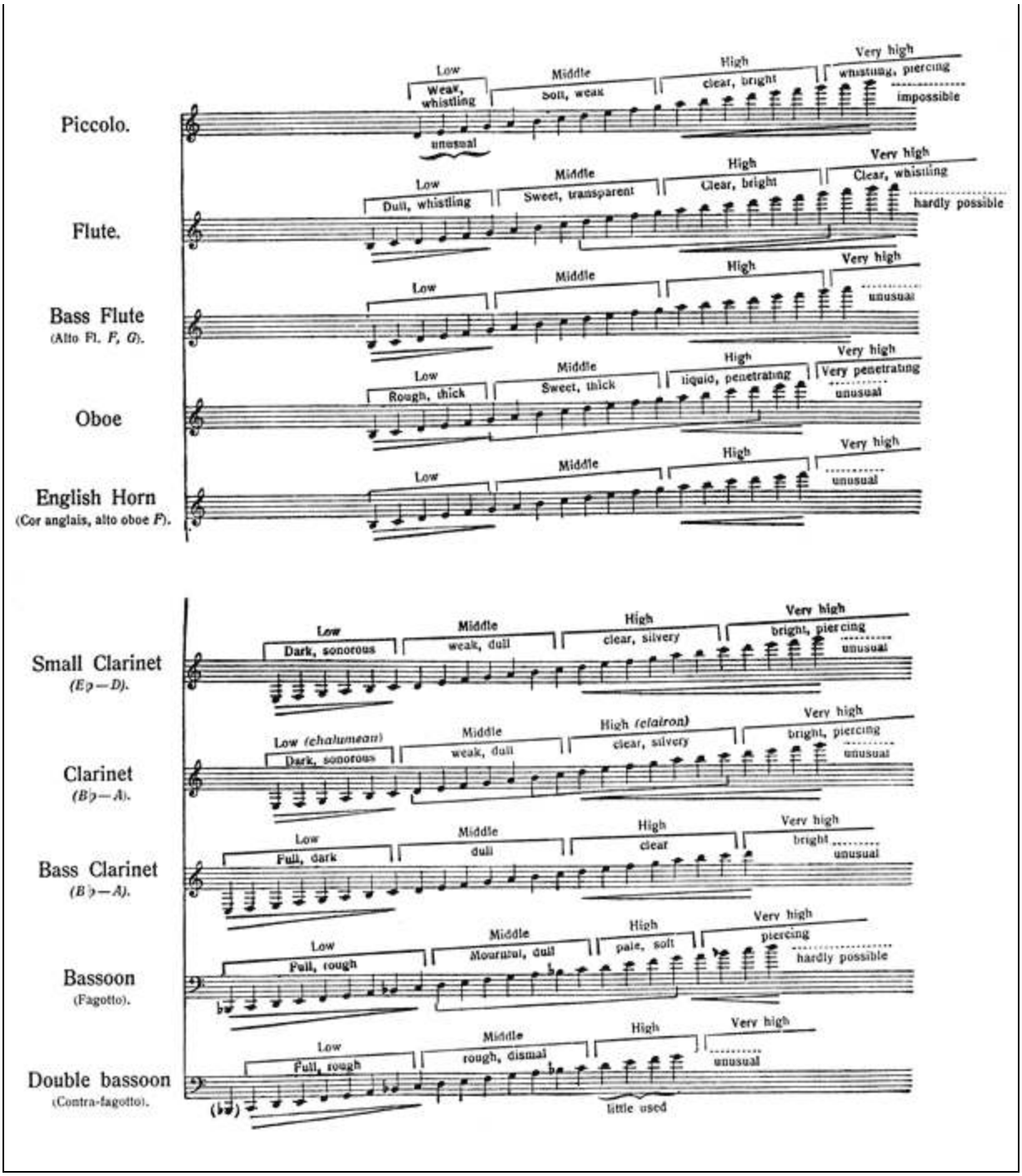
Note to Table B.

In the following Table B the top note in each register serves as the bottom note in the next, as the limits to each register are not defined absolutely. The note *G* fixes the register of flutes and oboes, *C* for the clarinets and bassoons. In the very high compass those notes are only given which can really be used; anything higher and not printed as actual notes are either too difficult to produce or of no artistic value. The number of sounds obtainable in the highest compass is indefinite, and depends, partly on the quality of the instrument itself, partly on the position and application of the lips. The signs  are not to be mistaken for *crescendo* and *diminuendo*; they indicate how the resonance of an instrument

increases or diminishes in relation to the characteristic quality of its timbre. The scope of greatest expression for each typical instrument is marked thus, under the notes; the range is the same in each instrument of the same type.

Table B. Wind group.

These instruments give all chromatic intervals.



Note. It is a difficult matter to define tone quality in words; we must encroach upon the domain of sight, feeling, and even taste. Though borrowed from these senses, I have no doubt as

to the appropriateness of my comparisons, but, as a general rule definitions drawn from other sources are too elementary to be applied to music. No condemnatory meaning however should be attached to my descriptions, for in using the terms thick, piercing, shrill, dry, etc. my object is to express *artistic* fitness in words, rather than material exactitude. Instrumental sounds which have no musical meaning are classed by me in the category of *useless sounds*, and I refer to them as such, giving my reasons. With the exception of these, the reader is advised to consider all other orchestral timbres beautiful from an artistic point of view, although it is necessary, at times, to put them to other uses.

Further on, a table of wind instruments is appended, outlining the approximate limit of range, defining different qualities of tone and indicating the scope of greatest expression (the piccolo and double bassoon excepted).

Flutes and clarinets are the most flexible wood-wind instruments (the flutes in particular), but for expressive power and subtlety in *nuances* the clarinet supersedes them; this instrument can reduce volume of tone to a mere breath. The nasal instruments, oboe and bassoon, are less mobile and supple; this is accounted for by their double reed, but, having to effect all sorts of scales and rapid passages in common with the flutes and clarinets, oboes and bassoons may be considered melodic instruments in the real sense of the word, only of a more *cantabile* and

peaceful character. In very quick passages they often double the flutes, clarinets or strings.

The four families are equally capable of *legato* and *staccato* playing and changing from one to the other in different ways, but distinct and penetrating *staccato* passages are better suited to the oboes and bassoons, while the flutes and clarinets excel in well-sustained *legato* phrases. Composite *legato* passages should be allotted to the first two instruments, composite *staccato* passages to the latter pair, but these general directions should not deter the orchestrator from adopting the opposite plan.

In comparing the technical individualities of the wood-wind the following fundamental differences should be noted:

a) The rapid repetition of a single note by single tonguing is common to all wind instruments; repetition of a single note by means of double tonguing is only possible on the flute, a reedless instrument.

b) On account of its construction the clarinet is not well adapted to sudden leaps from one octave to another; these skips are easier on flutes, oboes and bassoons.

c) *Arpeggios* and rapid alternation of two intervals *legato* sound well on flutes and clarinets, but not on oboes and bassoons.

Wood-wind players cannot manage extremely long sustained passages, as they are compelled to take breath; care must be taken therefore to give them a little rest from time to time. This is unnecessary in the case of string players.

In the endeavour to characterise the timbre of each instrument typical of the four families, from a psychological point of view, I do not hesitate to make the following general remarks which apply generally to the middle and upper registers of each instrument:

a) Flute.—Cold in quality, specially suitable, in the major key, to melodies of light and graceful character; in the minor key, to slight touches of transient sorrow.

b) Oboe.—Artless and gay in the major, pathetic and sad in the minor.

c) Clarinet.—Pliable and expressive, suitable, in the major, to melodies of a joyful or contemplative character, or to outbursts of mirth; in the minor, to sad and reflective melodies or impassioned and dramatic passages.

d) Bassoon.—In the major, an atmosphere of senile mockery; a sad, ailing quality in the minor.

In the extreme registers these instruments convey the following impressions to my mind:

	Low register	*Very high register*
a) Flute—	Dull, cold	Brilliant
b) Oboe—	Wild	Hard, dry
c) Clarinet—	Ringing, threatening	Piercing
d) Bassoon—	Sinister	Tense.

Note. It is true that no mood or frame of mind, whether it be joyful or sad, meditative or

lively, careless or reflective, mocking or distressed can be aroused by one single isolated timbre; it depends more upon the general melodic line, the harmony, rhythm, and dynamic shades of expression, upon the whole formation of a given piece of music. The choice of instruments and timbre to be adopted depends on the position which melody and harmony occupy in the seven-octave scale of the orchestra; for example, a melody of light character in the tenor register could not be given to the flutes, or a sad, plaintive phrase in the high soprano register confided to the bassoons. But the ease with which tone colour can be adapted to expression must not be forgotten, and in the first of these two cases it may be conceded that the mocking character of the bassoon could easily and quite naturally assume a light-hearted aspect, and in the second case, that the slightly melancholy timbre of the flute is somewhat related to the feeling of sorrow and distress with which the passage is to be permeated. The case of a melody coinciding in character with the instrument on which it is played is of special importance, as the effect produced cannot fail to be successful. There are also moments when a composer's artistic feeling prompts him to employ instruments, the character of which is at variance with the written melody (for eccentric, grotesque effects, etc.).