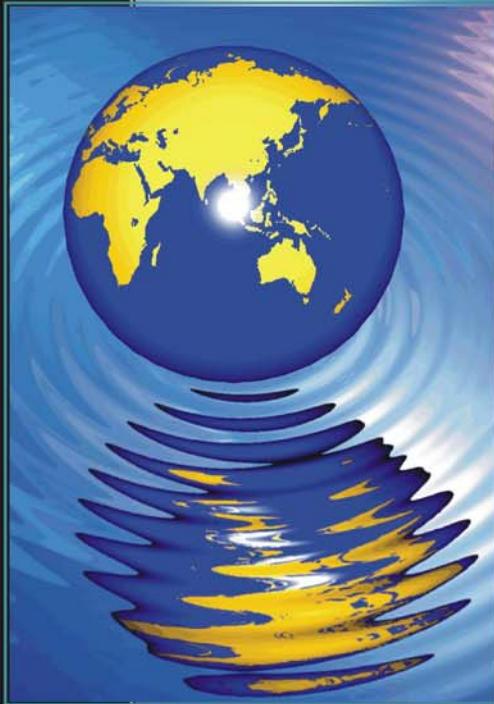


APEL

*The Art of Purification
& Enhancement of the Larynx*



A Voice Training Guidebook
for the *UNTALENTED*
By Michael MICHAEL

Essential Music Theory for Singers

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PREFACE

The ability to sing belongs to ALL of us and I guess at one time or another, you also have had a desire to sing and especially all those times you listened to a singer whose voice you *really* admired. If your dream (or wish) to sing came true, your life would become different. People tend to believe that you can only become an excellent singer if you were born with the talent. On the other hand, almost everybody that believes this myth also contradicts himself or herself by encouraging would-be singers to sign up for singing instruction. Well if it is true that you cannot become an excellent singer other than through hereditary means, what good could the suggested training do?

Most ridiculously, the suggested training teaches little or nothing about how to *become* a singer — instead, it teaches how to improve the supposedly already existent talent, i.e., not accommodating those who CANNOT sing. APEL changes all that by offering you and me, *the untalented singers*, a simple TECHNIQUE to acquire a *beautiful and professional singing voice*.

APEL is THE ART OF PURIFICATION¹ and ENUNCIATION² OF THE LARYNX³. It is a unique technique developed over a period of two years⁴ by one Michael MICHAEL (the author). Thereafter, it took a several years to compile an accompanying training manual, which you now have in your hands. The training manual is accompanied by audio material containing *reference* recordings⁵; it contains the foundation upon which you are going to build your exercises.

Your life is about to change for the better. This time around, if it does not, it probably never will. **It is up to you WHETHER you fly or not, but up to the wind HOW you fly – APEL Truth.**⁰⁰¹ *Your wind has just started blowing.*

Michael MICHAEL
Johannesburg, South Africa (January 1995)

¹ cleaning by getting rid of impurities

² an improvement that makes something more agreeable

³ a cartilaginous structure at the top of the trachea; contains elastic vocal cords that are the source of the vocal tone in speech

⁴ and perfected over more than ten years

⁵ the original concept was to provide an audio CD with all the exercises and demonstrations, but over the years, a this option resulted in an increased practice of mimicry of the author by students, to a frightening precision.

INTRODUCTION TO MUSIC

As with many other chapters, I battled with the inclusion of this chapter in the book. However, the fact that I will not be with you in class compels me to add as much supporting material as I can.

When discussing music it is often difficult to refer to the concepts of music without using musical language – so I had to find a workaround.

I did not intend to teach you musical notation, but because it facilitates learning how to sing, and it enhances your perception of music, we should look into it. *It is not required; but it is desirable.*

The use of musical language is the preferred approach in APEL. It makes communication and training easier and effective. Some of the concepts and examples require aural demonstration of some sort. By following the references at the end of this book, you will find the corresponding tracks on the audio supplements⁶ distributed with the book.

WHAT IS MUSIC?

What is music? If you are going to study music, you will NEED to know its definition. *Music is the art of arranging SOUNDS into expressive SEQUENCES and COMBINATIONS.* You will notice that there are various aspects of music mentioned in this definition – the *art* aspect, the *sound* aspect, the *sequence* aspect, and the *combination* aspect.

MUSIC IS AN ART

As an *art*, music is a *creative* product of the minds and hearts of the composers or performers. When a person sits down to write a song, all that they are doing is *taking sounds and arranging them in a particular manner*, which as they may judge, will best express what is in their heart.

When a person sits down at a piano to play, all he does is use his fingers to press the keys to produce sounds in a sequence or combination that best expresses what he has or hears inside him.

So then, music is simply the art of taking sounds and arranging them. The most important thing to understand is that when you *arrange* sounds, they form SEQUENCES⁷ and COMBINATIONS⁸, whether you like it or not.

The second most important thing to understand is that when you *sing*, you *also* form SEQUENCES and COMBINATIONS (not necessarily simultaneous, but rather sequential), whether you like it or not. **Singing is simply moving from one quality note to the next – APEL Truth.**⁰⁹⁰ So, we have sounds and they form sequences, come let us look closely at the concept of sequences.

⁶ you will find an index of audio tracks at the end of the book

⁷ a following of one thing after another in time

⁸ a collection of things that have been combined; an assemblage of separate parts or qualities

Unpacking a Sequence

A sequence is an *orderly succession of events*. If I said, "Water, soil, sun, moon and metal," I could be giving you a sequence of natural *elements*. If I counted, '1, 2, 3, 4, 5 and 7,' I could be giving you a sequence of *numbers* — or alternatively, another example could be, '3, 2, 4, 1, 8.'

The same applies to music, if I sing three notes one after the other, I am giving you a *sequence*. But we all know that I cannot just take any notes and sing them together, because when I do that, people will say I am not *talented* as a singer. The reason for this is that I will probably sing anything that comes into my mouth, without order or relationship.

When you play a sequence, you involve two things, the *EVENT* intervals, and the *TIME* intervals.

Event Intervals

Event intervals refer to the movement from one event to the other; in our case, *the movement from note to note*. When you sing your first note, you could move up to the next note, or even move down to the next note. But the fact remains that there will be *some kind of gap* between one note and the next, which is what gives your music character. The character of your music will be expressed in how you move from one note to the next. Imagine a series of steps going upward, in the following order, BLUE, PINK, GREEN, YELLOW, BROWN, PURPLE, and RED.

I could move from BLUE to PINK, then PINK to BROWN and then BROWN to GREEN. Moving from one step to the next might be easier than skipping or jumping to two steps further away from the current position.

Nevertheless, the pattern in which I move along the colored steps would be my *creative* movement, which forms patterns such as 'BLUE, PINK, BROWN, and GREEN.' If you were to move on the steps, *you* could also create your own *unique* pattern. This means you are *ARRANGING* the colors into a sequence of your own in your own manner, a pattern that you like.

With music notes, you could do the same thing — the principle would be the same. Therefore, your varied movement from the depth to the height, and vice versa, creates sequences that appeal to the ear.

Time Intervals between Notes

Time intervals do not change the structure or shape of your sequence. They only *accentuate* the motion. When soldiers march, they maintain a predetermined interval between their 'left' and 'right' steps, thus, accentuating the march. They would not be marching if the 'left' and 'right' followed each other at random speeds and distances.

Try to walk as you count, *stepping* at each number — first, '1-2-3' repeatedly, and then try '1-2' and finally try '1-2-3-4,' you will notice that it affects the event of your steps. A sequence is not complete without time intervals, determining how and when the events in the sequence — be they notes or colors, footsteps or light flashes, should proceed and precede each other. To sum up, we said music is about arranging notes sequentially, which results in two aspects of note characteristics, the note activity and the time activity. Now, let us look at what happens when notes are not following each other in a sequence, but playing simultaneously.

Understanding A Combination

In music, you will notice that when a person sings solo, they sing one note at a time, in other words they use sequences in their purest form. Each sequence has an element of *COMBINATION* in it, because the person must decide which notes to sing together, i.e., association (although they must follow one after another).

When a person plays the piano, they do not always play one note at a time; if that was all they did, it would sound odd, and rather amateurish. The pianist plays several notes simultaneously, meaning that the pianist's fingers touch several keys simultaneously. But when he does this, he does not just randomly play any note, he selects the notes which he knows, will give the harmonious combined effect he desires. The *combination* of notes will give a different harmonic effect when played simultaneously from when the notes are played sequentially.

A combination can therefore be simultaneous or sequential. A *SIMULTANEOUS*⁹ *COMBINATION* will strike the notes at the same time, but a *SEQUENTIAL*¹⁰ *COMBINATION* will strike the notes one after the other — the notes however, are still associated or related for a harmonic effect.

⁹ at the same time
¹⁰ one after the other

Simultaneous Combination

It really sounds more complicated than it is. A *simultaneous* combination simply requires knowledge of the sounds that do not conflict when sounded together. You could wear a green skirt or pants, and a yellow blouse. Does that combination sound pleasant or harmonious?

However, in the same context you could find that a skirt which has both *green* and *yellow* spots, has a slightly different effect. If the former combination (the green skirt with a yellow blouse) appealed to you, you might find that this one (the green skirt with yellow spots) does not appeal as much to you.

The same applies to notes, you could find that certain notes sound better when played simultaneously, than they do when played at the same time. Some combinations sound better when heard one at a time than, all at once.

In this kind of combination, you learn to use simultaneously, those notes that have an absolute harmonious (musically pleasing) effect together.

Sequential Combination

As I said, a sequential combination is different in that, the notes are combined by following after each other, like in a sequence, instead of being played together at the same time. Do not worry yourself about fully comprehending these concepts as yet. The objective of this section is merely to give you a background on what music is all about.

Now that we know that music is simply taking a number of notes and playing them, either together or one after the other as we please, we must now familiarize ourselves with the notes. In fact, let us ask ourselves a few questions:

- How *many* notes are there?
- Do they have *names*?
- How many do we use *per song*?
- What makes them *sound* good or bad?
- How *long* are the notes, or, how can we measure their durations?
- How can we measure level of *pitch*?

NOTES IN A TUNE OR SONG

A normal song usually contains only around seven notes. In addition to the notes in any one key, there are *five* additional notes that are occasionally used to expand the scope of the melody. Therefore, any one key (how high or low the note range of a song is) has only 12 notes¹¹, of which on average only about seven are used on per song. **These same twelve notes are the entire foundation of all the songs in the world¹² – APEL Truth.⁰⁹¹**

You must understand that although there are only 12 sounds, these sounds have many variations. **Each of the twelve notes can become the center of a key – APEL Truth.⁰⁹²** For example, there are only three base colors; these three colors have many variations that are then responsible for the rest of the colors.

The twelve notes we are referring to, are named after the *first seven alphabet* letters, as follows: C, D, E, F, G, A, and B (or A, B, C, D, E, F and G). In addition, the same alphabet names are reused (with an suffix) to expand the number of available names as follows: C<, D<, E<, F<, G<, A<, and B<, and *additionally*: C=, D=, E=, F=, G=, A=, and B= (yes, there is such a thing as F=, C=, B< and E<).

NAMING FOUNDATION

Some of the notes (with affixes) are also used as second (or additional) names for some of the already named notes, e.g., C< and D= are the *same* note. Even though we might now end up with 21 names, there are still only 12 notes, so some names will be 'synonyms.'

Let us recap:

- Alphabetical Names** – all notes are named after the first SEVEN LETTERS IN THE ALPHABET, i.e., A, B, C, D, E, F and G.

¹¹ not disregarding the fact that each note repeats itself at a higher or lower level

¹² including Eastern music

- **Expansion of Name List** – any other notes remaining will derive their names from the same list but with an identifier in the form of an affix known as a SHARP (<) and a FLAT (=).
- **Allocation of Affix** – the affix is allocated according to the note's position in relation to a plain alphabet note, i.e., a note like C uses a plain alphabet name, but notes between C and the next note, either below or above, will use the same name *with an affix*.
- **Positions** – a sharp (<) is the note immediately above, and a flat (=) is the note immediately below. In the context of this book, think of *sharp* as though implying *above* and *flat* as though implying *below* (like a *flat* tyre *lowering* the car, or a *sharp* object pointing *upwards* to pierce the tyre).

Various Levels of the Same Notes

In the next sections, I will show you in detail, how these signs affect the notes. Remember that when we say SOUNDS, we are referring to *notes*. There are many kinds of C's or D's or any of the other notes. Although there are only 12 notes, each note can have various levels of existence, one level in a woman's voice, another in a man's voice, and so forth.

You will find that there are very low C's, low C's, middle C's¹³, high C's, very high C's and so on – but they are all C's. The same rule applies to all the other notes like D, E, F, G, A, B and C (including inflected notes such as D=, etc.).

Chromatic¹⁴ Series

The *chromatic series* is simply an organized list of all the 12 notes in sequence. In general, it can be stated that there are only 12 notes in the world, but in technical and classical contexts the notes extend further than twelve, because of the use of *quartertones*¹⁵, instead of merely using *half tones* (*semitones*¹⁶). This means that a technical musician will attempt to create other *finer* notes by inserting a new pitch in-between the listed twelve, by making the new notes slightly lower or higher in pitch, to increase the total number of notes. You do not have to worry about quartertones – we never have to use them.

The *chromatic series* therefore, is an illustration of how the 12 notes relate to each other in terms of pitch.

First, it is important to remember that the notes are named according to the first seven letters in the alphabet, meaning A, B, C, D, E, F and G (or C, D, E, F, and G). *We use 7 alphabet letters, but we have 12 notes to name.*

This effectively means that we are short five names. These five names will be derived from the seven letters we already have, by using the *neighbor system*¹⁷. The neighbor system is not a conventional term; it is APEL commonsense analogy. The analogy compares notes with houses in a neighborhood. In this analogy, if you do not know a house owner's name, you can refer to him by the name of his neighbor.














House No. 342		House No. 344		House No. 346		House No. 348	House No. 349		House No. 351		House No. 353	House No. 354
												

Figure 1: Neighbor System

For example, Mr. Smith lives in House No. 342, but next to his house, there is another house belonging to a *stranger* who never talks to anybody and lives a quiet and reserved life.

Nobody knows this man's name, but let us imagine someone has to visit him to take a collection for the community fair. How do you direct the person to his house to collect the money? You can say, "*The strange one who never talks to anybody,*" and hope to the Lord the boy will know what you mean, or you could say, "*Mr. Smith's right-hand neighbor.*" His house is *not* numbered and we do not know his name

¹³ the note designated by the first ledger line below the treble staff; 261.63 Hertz

¹⁴ (music) based on a scale consisting of 12 semitones

¹⁵ a note which exists in the middle of a semitone

¹⁶ a note which exists in the middle of a tone

¹⁷ the analogy of notes to houses which are built next to each other

– which is why we use his neighbor's name as a reference. This is what we are going to do here: refer to these unnamed notes by their neighbor's names.

The Construction of the Series

First, we must arrange the notes whose names we know. We insert those into our sequence and then we can use their names for the unknown neighbors.

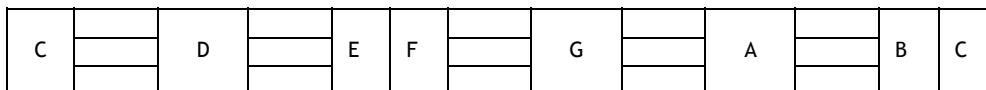


Figure 2: The Seven Natural Notes

Notice that there are gaps between each note and its neighbor, except between B and C and E and F. The B-C and E-F relationships are the only ones within which there are no gaps. In other words, there cannot be another note inserted between the two closed positions of E-F and B-C. To remember this, consider the B-C or E-F relationship a closed relationship¹⁸. It is like one of those parking bays that are so close to each other you can hardly get out of your car. Let alone attempt to park a motorcycle in between them.

Neighbour System

Each named note will have two neighbors, one on the left and one on the right. Musically speaking, we shall call the neighbor on the left a FLAT (using the sign =), and the one on the right a SHARP (using the sign <). For a note like D, the left neighbor will be known as D-flat (D=) and the right neighbor as D-sharp (D<).

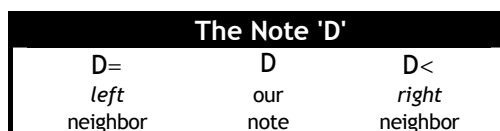


Figure 3: Flat, Natural and Sharp

Some notes will end up having two neighbors, meaning that they will have two names. One derived from its left neighbor, and one derived from its right neighbor. You can therefore refer to a note either by the name of its neighbor on the left, or the name of its neighbor on the right. It all depends on the context. This is a concept you will understand better in the next chapters.

Now that we know how to arrange the seven natural notes and how to name the unnamed notes, we can arrange the complete 12-note table or series with all the names.

Double Neighbours

It is also important to understand that a note can be sharpened more than once, meaning that C can be C< and even C<<. Then it is important to remember that when a note is sharpened, it is moved up by a semitone (a semitone being one block or house stand in the chromatic series). So then, C< is D=, while at an additional sharp, that is C<<; it is the same as D.

To read the chart correctly, each vertical row between the lines represents a single note (or house stand), the two names are alternatives – depending on the relationship you are focusing on when you address the note. D=, is D's neighbor, but C< is C's neighbor. Yet, the two notes are the same.

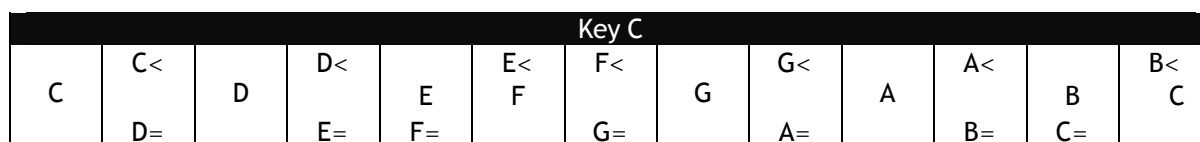


Figure 4: Chromatic Series

¹⁸ not allowing for a gap inbetween the notes

Expanded Inflections

It is important to understand that if we could sharpen a note once, nothing stops us from sharpening it twice. Equally true, we can flatten a note twice, which will result in double sharps and double flats respectively.

C Inflections				
Triple Sharp				C<<<
Double Sharp			C<<	
Sharp		C<		D<
Natural	C or C ^{>} ¹⁹		D or D ^{>}	
Flat		D=		E=
Double Flat	D==			

Figure 5: Double and Triple Inflection²⁰

Do not let the addition of double and triple sharps confuse you, it is merely a continuation of the neighbor system. Where, in a case where you called a person "Mr. Smith's Neighbor," you could also call another person who is a second neighbor, "Mr. Smith's neighbor's neighbor." To the mind, it is an uncommon way of communication, but it still carries the same logical sense as the first reference.

SCALES

Now, do we use all twelve notes together every time? We cannot — if we did, there would be chaos. We have to find a way of grouping those notes that seem to flow into each other with ease, and use them in a set (like a circle of friends or family).

CREATING A SCALE

On any given street, some neighbors 'clique' together more than others, it is those who become friends and do things together. Once we find those groups of notes that have a *clique* by way of relationships, we will comfortably use them together in whatever way we creatively choose. A grouping of related notes together is called a SCALE. Just as we gave the notes names, we will end up giving scales names too. These names will depend on the manner in which we *associate* the notes.

Scales are part of the definition of music that we gave at the beginning of these studies. MUSIC IS THE ART OF ARRANGING SOUNDS INTO EXPRESSIVE SEQUENCES AND COMBINATIONS.

As soon as you mention the SEQUENCE, you are referring to any sounds that we extracted from the chromatic series of 12 notes that have a *clique* together. To use the notes together for a simple reason of flavor or essence, we usually restrict ourselves to a few notes (normally seven notes which 'clique' together). *This we call a scale.*

One may for example, choose to use only C, D, E, F, G, A and B. These notes would make up a scale, and that scale would have a name. In this case, it is the *C Major Scale*. The most important thing about a scale is the *formula* upon which it is based, because that determines the relationships between the various notes.

A person becomes *your* biological mother *only* because she *gave birth* to you, and that alone, is what really determines the type of biological relationship between the two of you. The relationship of *mother and son, or daughter* can be derived from such a formula.

The note on which the scale starts is called a *root* or the *tonic*. Effectively, there are 12 roots or tonics, because each of the notes on the chromatic series can act as a tonic or root for some scale as you will see later on.

TYPES OF SCALES

There are three main types of scales, viz., *major*, *minor* and *chromatic*. Minor scales have two forms, *harmonic minor* and *melodic minor*. Each of the scale types has a different flavor. The purpose of each scale type will also vary from type to type. Melodic scales are used mainly for creating *melodies*, while

¹⁹ a natural (>) is used only when restoring a note to its original name, i.e., in melodic movement

²⁰ a change in the form of a word or note (usually by adding a suffix) to indicate a change in its grammatical function or pitch value

harmonic scales are used in the construction of *harmonies*²¹. Major scales are so called because they are principally the base scale and also the most popular type.

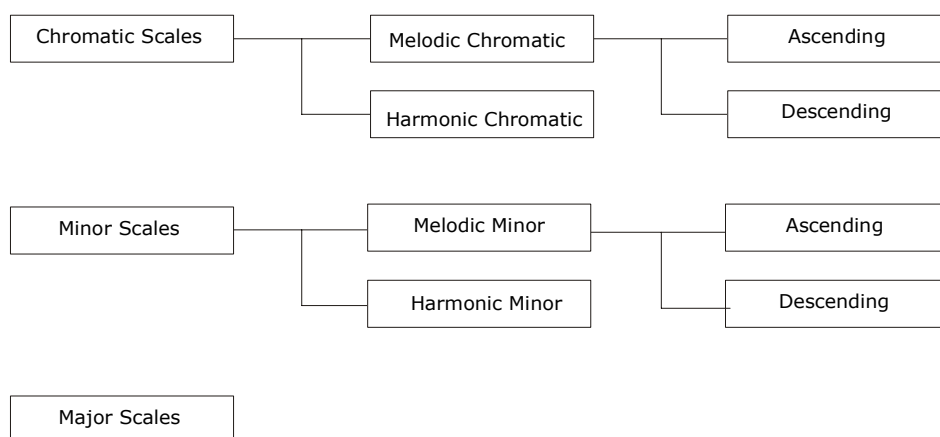


Figure 6: Scale Types

SCALE VARIATIONS

You will notice that major scales have no variation types²² generated from them, unlike minor scales, which have two main types, the HARMONIC MINOR and the MELODIC MINOR. As we said, the harmonic minor is called *harmonic* because it is mainly used for harmony, that is, the creation and construction of chords. The melodic minor is so called because it is mainly used in the creation and construction of melodies.

SCALE DIRECTIONS

The MELODIC MINOR characteristics extend further, from being a mere branch of minor scales, it also has two further branches (characteristics) of its own, that is, the MELODIC MINOR *DESCENDING* and the MELODIC MINOR *ASCENDING*. The two forms of scales are used as indicated by their names, when a melody goes upwards, the notes used in it are taken from the melodic minor *ascending* and vice versa.

TONE AND SEMITONE CONCEPTS

Before one can create scales, one needs to understand the measuring system used in the chromatic series of 12 notes. You cannot measure notes in meters (e.g. C is 1 meter away from D), or even kilometers (e.g., C is 1 kilometer away from D). The same way you cannot measure them by stand numbers (e.g., C is on stand number 1245A and D on stand number 56647B) or personal relationship names (e.g., C is the brother of D).

You must use the TONE and SEMITONE relationship. That is, C is a tone from D. What is a tone²³? What is a semitone²⁴?

DEFINING A TONE

A *tone* is any pitch relationship encompassing the length of THREE BOXES on our chromatic table and names, i.e., E-F< is a tone, so is E-G=. A semitone is any pitch relationship encompassing the length of TWO BOXES on our chromatic table. C is a full tone away from D.

Notice that any note in the series can be regarded as *box 1*, i.e., as the starting box (which must therefore be counted as the *first*); *box 2* would be the *next* and *box 3*, the *ending* box (which must also be counted).

²¹ this is a general classical or academic convention and may be ignored by the composer

²² they have the same form whether ascending or descending

²³ a musical interval of two semitones

²⁴ the musical interval between adjacent keys on a keyboard instrument

DEFINING A SEMITONE

Measuring the distance from a note to another simply means counting the box in which the note is located, and continuing to count until you reach *box number two* (for a *semitone*) or *box number three* (for a *tone*). It is important to count the **FIRST BOX** (the one containing your note) and the **LAST BOX** (the one in which you stop counting).

A scale formula will be based on a sequence of **TONES** and **SEMITONES** – determining an aroma or essence upon which it is built.

When you pick notes from the 12-note table (chromatic series) according to the formulae we will discuss, they will then form the required scale, in the key of the starting note.

THE MAJOR SCALE

A major scale is a *natural*²⁵ scale. It is called *natural* because it seems to come naturally to an untrained ear. Other scales seem to be built on the foundation of this scale. We can think of the other scales as scales that were modified by man to get alternative feels and flavors. Notice that all these scales are different, and are used for different purposes. The major scale though, is basic and can serve various purposes without restrictions. It is based on the following *sequence* of tones and semitones:

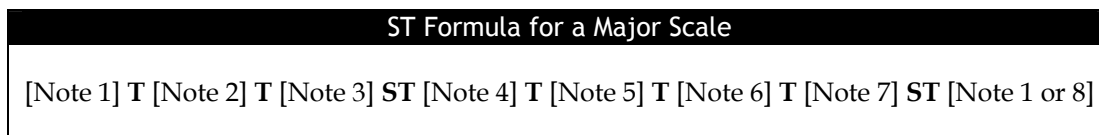


Figure 7: Design of the Major Scale²⁶

The places marked 'Note,' are positions where our notes must be placed as we count and pick them from the 12-note table. Let us therefore create an example of the major scale. First, we need the 12-note table.

This will be the same table that we used before, namely, the **CHROMATIC TABLE**. Although for purposes of the following example, sharps (<) and flats (=) are not required, we will leave them on the table to make our counting logical and clear.

Chromatic Series on Key C												
B<	C<	D	D<	E	E<	F<	G	G<	A	A<	B<	
C				E	F						B	C
	D=		E=	F=		G=		A=		B=	C=	

Figure 8: Chromatic Series

Since the scale we need to construct is that of C (C is the **TONIC** or **ROOT**), we have to start on C. C therefore, is our *first* note, also known as the *key*²⁷.

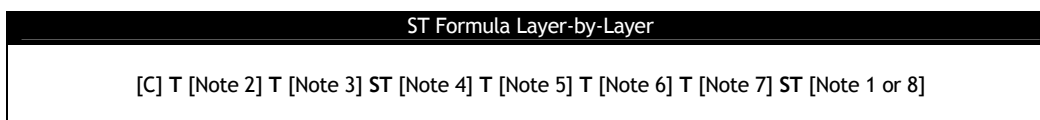


Figure 9: First Note — Building the Major Scale²⁸

To get our first tone relationship into Note 2 (according to Figure 12), we need to count **THREE BOXES** from C.

Box 1 or column one contains C, *box 2* or column 2 contains both C< and D=. *Box 3* or column 3 (our final and determining box) contains D. D is the note we must insert in the space marked 'Note 2.'

²⁵ major scale

²⁶ S & T formula used to determine how notes relate to each other

²⁷ any of 24 major or minor diatonic scales that provide the tonal framework for a piece of music

²⁸ from the first note up

ST Formula Layer-by-Layer
[C] T [D] T [Note 3] ST [Note 4] T [Note 5] T [Note 6] T [Note 7] ST [Note 1 or 8]

Figure 10: *Second Note — Building the Scale Up*²⁹

If we continue counting as directed, we finally end up with a scale that looks like this:

ST Formula Layer-by-Layer
[C] T [D] T [E] ST [F] T [G] T [A] T [B] ST [C]

Figure 11: Major — Complete Scale of C

To construct the scale of D, You would follow a similar process, first using D as your starting note and key, then all the other notes according to the formula given above.

Complete Scale
[D] T [E] T [F<] ST [G] T [A] T [B] T [C<] ST [D]

Figure 12: Scale of D Major³⁰

Notice that in *Note 3* of key *D*, the counting process would have looked like this:

Box 1	Box 2	Box 3
	E<	F<
E	F	
		G=

Figure 13: Inflections

Notice that the box labeled 'Box 3' is the one containing the note you require, but imposes a choice between *two* names. Which of the two note names must you pick, since they both fall in the 'determining' box?

NAMING RULES

The principles to be used here are simple:

- **Observe ALPHABETICAL SEQUENCE** — if the letter *E* is the previous note, the next letter in the alphabet after *E* is *F*. Our choice of the next note (the *Box 3* note) must be alphabetically sequential with our previous note (in this case, of *E*). Meaning therefore that between *F<* and *G=* in *box 3*, the alphabetical choice is *F<*. There will be many other scales which present similar choices to you, simply follow the given rule.
- **Do NOT Repeat an Alphabet**³¹ — even when the alphabet appears as a variation, you should never repeat it. It would be wrong to have a sequence like *E-E<*:

[C] [D] [E] [E<] [G]

It would also be wrong to have a sequence like *F=-F*:

[C] [D] [F=] [F] [G].

- **Do NOT SKIP A Letter** — your scale must always be alphabetical, and *do not* omit any notes in the alphabetical sequence

²⁹ progressive assembling of the major scale

³⁰ the same scale in a different key

³¹ one alphabet name per scale (always)

MUSICAL NOTATION

We are now assuming that you understand notes, tones, semitones and scales. It is also important to understand how music is *read* or *written*. Music is written on a set of five lines known as a *staff*³².

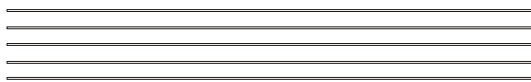


Figure 14: Music Staff

These lines are used to represent the names of the notes (which were demonstrated in the 12-tone table, i.e., the chromatic series). Each line is named after a specific alphabet note and remains loyal to that note throughout a specific music piece. These lines are named according to the alphabet names previously discussed. In the following example, the first line from the bottom is named E and the first space name is named F.

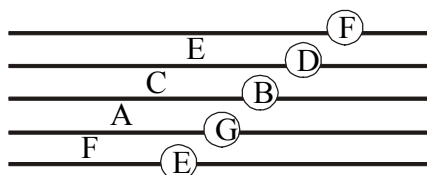


Figure 15: Upper Range - Line and Space Names³³

However, this is not always the case; there are times when the staff will be named differently. Depending on the range of the notes you are writing, the line and space names might be labeled differently. Fortunately there is less than a handful of staff naming variations.

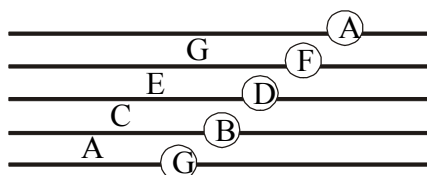


Figure 16: Lower Range - Line and Space Names³⁴

What determines the conventions of the naming of these sets of lines (that is, why do we use two or more different labeling conventions)? Here we introduce a concept called a clef, indicated by a called the *clef*³⁵ that determines the naming of the lines and spaces. There are more than three types of clefs, such as the *F CLEF*, the *C CLEF* and the *G CLEF*. These clefs change the name character (or range) of the staff into a range or compass for a specific breadth of notes (or instrument). It defines the scope within which a voice or instrument will predominantly perform, e.g., upper, middle or lower range.

THE CLEF

The clef is merely a sign that marks of a portion of the full range of audible, and useable notes into smaller and specific, and rather confined ranges for selected voices or instruments. In other words, notes written for a *bass guitar* will not be on the same range as notes written for a *flute*. Therefore, their demarcation and notation will differ somewhat, meaning that they will use different clefs. Remember that if you use a different clef, THE NAMES OF YOUR SPACES AND LINES CHANGE.

The composer therefore, chooses a clef which represents the center of the range of notes he intends to use, and places it on the staff where his notes are written, that becomes the determining factor for what each line and space will be called. The *G clef* is the most commonly used, and it represents the *middle to upper* half of the piano keyboard, which is incidentally also the range were most human voices sing.

³² the plural name, *stave*, refers to two or more sets of five lines each

³³ for higher notes, usually voices and instrument comparable to the female voice

³⁴ for lower notes, usually voices and instruments comparable to the deep male voice

³⁵ a musical notation written on a staff indicating the pitch of the notes following it



Figure 17: G Clef (Treble Clef)³⁶

The second most commonly used clef is the F clef, which covers the *middle to lower* section of the piano keyboard.



Figure 18: F Clef (Bass Clef)³⁷

The notes on the staff relate to the notes on an instrument. We referred to the piano in our examples of the clefs above. Since the two clefs each represent one half of the piano keyboard, putting them together would to a large extent represent the full piano keyboard. When used together, the clefs represent a piano music score – this also encompasses most, if not all human vocal ranges.



Figure 19: Piano Stave - Bass and Treble Clef

Another clef that is not in common use today is the *C clef*. The C clef is very interesting because it can assume different positions on the staff, depending on the instrument or voice it is denoting.

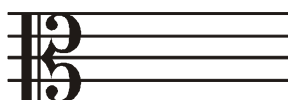


Figure 20: C Clef (middle C)

The C clef is *always positioned on the middle C line*. In the following Figure 24, the C clef is illustrated in its denotation of different voice or instrument parts.

³⁶ the pitch range of the highest female voice

³⁷ having or denoting a low vocal or instrumental range

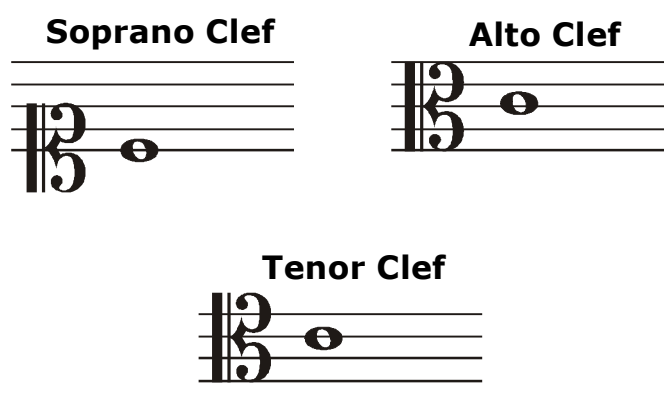


Figure 21: C clef in various voices

We have now laid down a foundation on the basics of pitch and given an introduction to how pitch is interpreted in musical notation. This is not nearly enough knowledge to start writing songs³⁸, but it is a start in the right direction. What we will do in the following section, is start relating your *new* knowledge with additional focus on *time*³⁹.

I have no intention of making this a handbook *on the theory of music*; I only wish to give you enough knowledge to be able to discuss APEL in its full dynamics without the *lack of music knowledge*⁴⁰ slowing you down or even preventing you from grasping some of the concepts.

TIME IN MUSIC

This section is aimed at teaching you how to follow, or read music notation in *step time*. *Step* reading refers to a interpretation technique that involves *individual* translation of music notes. A trained musician should develop to the *real time* reading level (where he reads without pausing to interpret the notes, but flows along as if reading text), where his mind unconsciously works out the meaning of the signs, and his reflexes follow suite by either singing or playing a musical instrument, accordingly. There are several elements that have to be understood and mastered to achieve this.

Note Durations

Every time a note is sung or played, it has two basic characteristics, the *duration*⁴¹ of the note and the *pitch*⁴² of the note.

In simple terms, the note could be *one beat long* and at the same time be a *C* – or be *three beats long* and be a *D*=. It depends on the decision of the composer or creator of the music. This is what makes music – *artfully* combining notes of different *duration* and *pitch*.

We have already found that notes are *denoted* on the staff, BY THE POSITION THEY OCCUPY ON THE STAFF (according to the note name of the intended pitch). To play a *C* note, we would have to write our note on the *C* line⁴³. To play an *F*< note, we would have to place our note on the space for *F*. It is that easy to play or choose a note on the staff. But how does one determine the duration of the note? In seconds? No!

Note Values

In staff notation we use certain note shapes to denote the relative duration of notes. These *note values* have different naming conventions, *viz.*, the *English* and the *American* naming conventions. Each note's duration is represented by a shape which allows the musician to play the duration correctly.

Let us have a look at the naming of these notes – take note of the difference between the naming conventions, *i.e.*, the use of either an *American*⁴⁴ or an *English*⁴⁵ convention.

³⁸

composing

³⁹ part of our definition of music is arranging notes to 'time'

⁴⁰ fundamentals of music

⁴¹ how long the note will play

⁴² how high or low in range the note will play

⁴³ there are more than one C lines, or spaces, the one we use must correspond with the octave intended

⁴⁴ U.S. musical notationconvention

⁴⁵ popular or British musical notationconvention

Label in Figure	American	English Name
1	Double Whole	<i>Breve</i>
2	Whole	<i>Semibreve</i>
3	Half	<i>Minim</i>
4	Quarter	<i>Crotchet</i>
5	Eighth	<i>Quaver</i>
6	Sixteenth	<i>Semi-Quaver</i>
7	Thirty-Second	<i>Demisemiquaver</i>
8	Sixty-Fourth	<i>Hemidemisemiquaver</i>

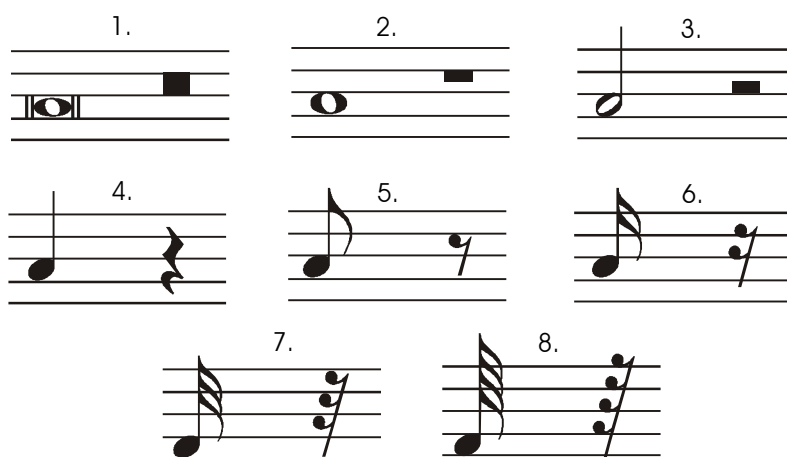
Figure 22: American versus English Naming Conventions

Figure 26 illustrates each *note* and its *rest* value. A *rest value* is merely the duration of a *silent* note, equivalent to the corresponding note (i.e., a *breve rest* is the same duration as a *breve note*). It represent those places in a song where an instrument is silent. **Silence gives life to music – APEL Truth.**⁰⁹³

The question is, if a note is called a *whole* note, what is it a *whole* of? Why do I ask this question? To indicate that in order to calculate a the duration of a note, it is necessary to first establish the size of the whole note, and work the rest out proportionally. *To understand how big half of my salary is, it is important to first understand how big my salary is.*

The English names tend to make it easier, because it does *not* imply a *relational* size. *You do not have to always calculate how the size of the note you are playing relates to the beat unit of your song.*

This can be a disadvantage because, music is based on the harmony and relationship of notes. For this reason, we recommend the American convention, which will *force* the reader to always think in the context of how each note relates to the next. The *American* convention always implies that note sizes are *relational*, that a note is only as long or short as its time signature⁴⁶ (pulse meter) dictates.

Figure 23: Rest and Note Values⁴⁷ (Refer to Figure 25 for names)

In Figure 26, there are two shapes per staff, the shape on the left represents a *NOTE VALUE*, and the one on the right represents a *REST VALUE*.

If you see a shape that represents two beats⁴⁸ (such as the shape labeled '3') on the F< space, you must then play two beats on the F< note on your instrument. Each note duration also has a rest duration. Rests are used to notate or mark a portion of the music where the instrument must remain silent. It is necessary when playing music to occasionally pause as the music composer instructs.

⁴⁶ notation that identifies the time characteristics of a song, e.g., waltz or march

⁴⁷ note on the left and rests on the left

⁴⁸ the beat concept will be explained later



Figure 24: Piano Stave Example

The illustration above shows *note values* being used on a piano stave. It is merely an example of how one can begin to apply note values on the staff with various clefs, using any available note and rest values in any chosen key. Let us look at a few more examples: If you were to write for a flute, you would use the G Clef and the music would look something like the following:



Figure 25: Flute Melody in F

Notice the *clef*, *time signature*⁴⁹, *note values* and *rest value* and how some notes are joined together (i.e. where, several note *stems*⁵⁰ share the same *flag*⁵¹ or *beam*). The melody in the Figure 28 is in the key of F.

Following this is another melody in a different key. You can already see that the notation now looks slightly different. Notice that the music is written in a different key and different clef.



Figure 26: Melody in F

Notice what happens when the music in Figure 29, is written on a different clef and key. Remember that a clef is simply a point of reference to indicate instrument's intended range.

A C in the bass, *middle* range or even the *highest* range — is still a C. How would one know which C to play? Without a clef, your choir could sound like the chipmunks if they did not figure out that the bass was supposed to be singing in the *bass* range. Therefore, a clef indicates your note *location* relative to *middle C* (the sound of the C in the middle of the piano).

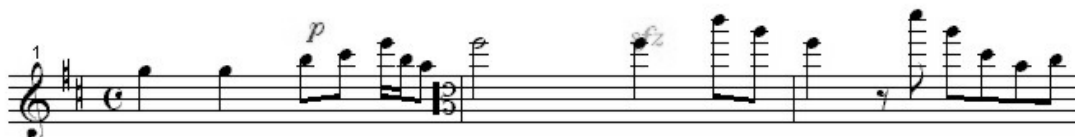


Figure 27: Melody in B minor

You do not have to understand these examples fully, but only to the extent where they illustrate how one uses the knowledge just discussed in a real life situation. These examples use a *G clef* (that has not been discussed yet). Ledger lines (i.e. the horizontal lines that extend the height or depth of the stave) have been introduced in the example together with additional notation to direct dynamics (a term used in music to refer to *tone* and *volume*) when playing or singing the melody.

⁴⁹ to be discussed in detail later in the book

⁵⁰ the long narrow vertical part of the note

⁵¹ connector line joining neighboring notes on a staff for readability

THE MEANING OF THE TIME SIGNATURE

Music depends on several aspects of time such as *tempo* (the speed of a song), *pulse* (the counting feel), *beats* (single counts) and *bars* (counting cycles) are all essential elements in any intelligible piece of music.

The composer must therefore indicate to the reader or player, these essential elements for an authentic interpretation of his music. Time is indicated by using a sign or symbol called the *time signature*. This tells the reader how to interpret the time aspects of the song. The signature controls the time characteristics of the rest of the song. The pulse of the song is also indicated in time signature. Consider the following example of time characteristics of a music piece.

1 – 2 – 3 – 4

Figure 28: Four Pulse Meter

Notice that the pulse is stronger on 1 and 3, and yet, it is stronger on 1 than on 3. This is how a pulse feels. When you are singing or playing, you can feel the places in the count where stronger emphasis should be placed.

One has to decide on the duration of your pulse (better known as a bar), a pulse is more easily felt when it is shorter, i.e., 1-2-3-4⁵² or 1-2-3⁵³ or 1-2⁵⁴. All these elements contribute to the time of the song. It would be very hard to feel the pulse of the fictitious signature below. **The simpler the song, the further it reaches – APEL Truth.**⁰⁹⁴

1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16
--

Figure 29: Fabricated 16 Pulse Time⁵⁵

When learning to play or to sing, the ability to perceive the time signature must almost be second nature. Singing depends on two major aspects, namely TIME and PITCH. The rest are mere enhancements and not central. **Show me a man who has the ability to control time and pitch in music, and I will show you a virtuoso – APEL Truth.**⁰⁹⁵

TIME SIGNATURE

The time signature must point out two main things: first, the DURATION OF THE BAR (the *number* of beats or pulses in a bar) and then the DURATION OF EACH BEAT (the *duration* of each pulse, beat or count). A typical *time signature* might look like this:

3	Number of Beats or Duration of the Bar 3 Beats Per Bar
4	Duration of Beat or Pulse Each Beat is a Crotchet or a ¼ Note

Figure 30: Three Four Time

One might choose to have *minim* beats (for the beat value) and keep the duration of the bar to *two* beats. Note that *three-four*, *three-eight* and *three-sixteen* are not the same. This would look like this:

2	2 Beats Per Bar or <i>Measure</i> ⁵⁶
2	Each Beat is a Minim

Figure 31: Two-Two Time Signature

If one were to increase the size of the bar to six beats and choose a smaller value for the beat, such as a *quaver* or eighth note, one would end up with compound⁵⁷ six-eighth time.

⁵² four pulse

⁵³ three pulse

⁵⁴ two pulse

⁵⁵ not practical for use

⁵⁶ bar and measure are synonymous

⁵⁷ a whole formed by a union of two or more elements or parts

6 8	6 Beats Per Bar or Measure
	Each Beat is a Quaver

Figure 32: Six-Eight Time

It is important to understand that the number at the BOTTOM (the denominator) represents the *beat value* or duration, which means that the note you choose to use as a beat will be one of the *note values* from the table previously discussed. Commonly, the *crotchet* is the popular beat value; other common values are the *quaver* and the *minim* respectively in order of popularity.





Number of Denominator	English Name	Beat Value
2	Minim	
4	Crotchet	
8	Quaver	
16	Semi quaver	

Figure 33: Pulse Denominators

The upper number (in time signature) could be any quantity that you choose to use as the measure of your pulse. Obviously there are impractical⁵⁸ time signatures whose effect would not make sense to the hearing ear. Any time signature is technically⁵⁹ possible, but does not provide a sensible pulse measure. Study the table below and note the comments.

2 2	Two minim beats per <i>metre</i> ⁶⁰ . Common in older pieces, not so popular in modern music – practical and easy to read.
4 4	Four crotchet beats per bar. This is the most popular time signature.

Figure 34: Even Time Signatures

⁵⁸ in that the time signature would not make sense to the hearing ear

⁵⁹ according to the logic discussed here

⁶⁰ a *metre* is a collective relationship between beats in a bar, commonly equivalent to a bar

3 4	Three crotchet-beats per measure – probably the second most popular time signature.
6 8	Six quaver beats per measure – also very commonly used as a cross between two and three pulse meter.

Figure 35: Triple and Compound Time Signatures

As you might already be aware, the most commonly used meters are 1-2-3-4, 1-2-3 and 1-2-3-4-5-6 – you can however use others.

There are quite a number of songs that are written in a 2-pulse meter. Nevertheless, as I said, the possibilities are endless: you can do whatever sounds right to your ear, or culture.

TIME SIGNATURE MAPS AND GROUPING

Each time signature has a template map, e.g., 3/4 time (pronounced 'three four') will have three *FOURTH NOTES* (i.e., 4th or *QUARTER NOTES*, otherwise known as *crotchets*). The same way 4/4⁶¹ (pronounced 'four-four') time will have 4 *FOURTH NOTES* (or *QUARTER NOTES*, otherwise known as *crotchets*).

2/2 time will have 2 *HALF NOTES* (otherwise known as *minims*). If one were to draw the basic map or typical template of some of these time signatures, e.g., 2/4 and 3/4, they would look something like the table below.





Time	Individual Values	Grouped ⁶² Values
2 4		
3 4		

Figure 36: Time Map and Grouping

The same principle is applicable to other time signatures as well; let us look at 2/2, 4/4 and 6/8 time maps.







Time	Individual Values	Grouped Values
4 4		
2 2		
6 8		

Figure 37: Examples of Time Signature Maps

Grouping is necessary in order to make notation readable. It was necessary in the 17th and 18th centuries already, to standardize music notation *grouping* in order to make score reading easier, irrespective of the *handwriting* or *notation habits* of the then composers.

The subject of *notation grouping* extends far beyond the scope of this book and will therefore, not be addressed extensively.

⁶¹ pronounced four-four time
⁶² to make readability easy

THE NEED FOR GROUPING

Grouping is a standardized way of arranging notes in a bar, to make music *readable*. Think about the following example and decide what would be easier to read?

- A crotchet rest written as *two* quaver rests or as *one* crotchet rest?
- If there are eight quavers in a bar, should they be written joined together with beams (the flag on the note) or should they be separated from each other?

It is actually very important to group notes correctly, because failure to do so, confuses the music *sight-reader* – or causes the reader to work out sums of notes and rests before they can play or sing them. Standardizing notation helps to *smooth* the process of sight-reading.

Imagine driving up the road and you saw a *thick red line across the tar*. What do you think it would mean? One could guess: 'slow down,' or 'stop,' or 'yield' or 'road closed.' You could never be sure unless the authorities actually standardized road signs and told you what they meant by using such a line.

To avoid guesswork and uncertainty, one has to group notes together in conventional fashion that is universally understood.

RESTS IN VARIOUS TIME SIGNATURES

INDIVIDUALLY

All rests must be written *individually* (to the *sum* of the beat).

- Crochet** – when the beat is a crotchet, all crotchet rests must be written as crotchet rests.



Figure 38: The Quaver Rest in 4/4 Time

- Half Bar** – but when the rest values add up to half a bar and comprise a *logical* half of the bar (i.e., a half bar not spanning across the logical middle of a bar), the rest may be combined into one minim rest. In Figure 41, we could have used a minim in the middle, but it would have confused the logical middle of the bar.



Figure 39: The Minim Rest in 4/4 Time

TRIPLE TIME

In 3/4⁶³ time, all rests should be *individual* or *separate*, never combined, even when half of a bar is empty⁶⁴. This is because, of course, *three* cannot be halved to a whole number.

⁶³ also pronounced THREE-FOUR time

⁶⁴ of course 3 has no natural half

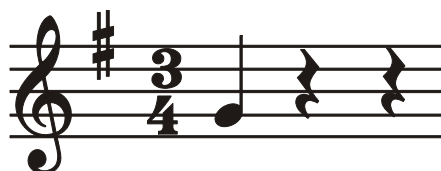


Figure 40: Quaver Rest in 3/4 Time

EMPTY BARS

All empty⁶⁵ bars (where the music or instrument is silent), in all time signatures studied so far, must be indicated by using one semibreve rest – even in 3/4 time where the sum of a semibreve duration would calculate longer than the measure.

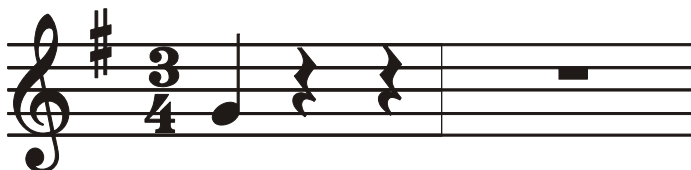


Figure 41: Full Bar Rest in 3/4 Time

Figure 45 below shows the use of a minim and semibreve rests in 4/4 time, especially placement of a half-bar rest.

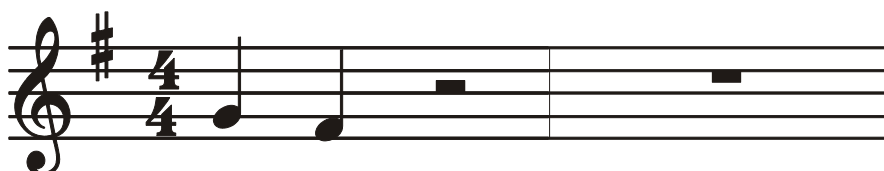


Figure 42: Full Bar Rest in 4/4 Time

It is very important to realize that each *time signature* is different and that the most important aspect about each time signature is the value of its beat and the *duration of each bar* measured in the number of *counts* or *beats*.

SUB-DIVISION OF A BEAT⁶⁶

Even Time⁶⁷

- **Beat Emphasis** – grouping must emphasize the note value of the beat duration of each time signature.
- + **Pronunciation** – in 4/4 time, your grouping should always *pronounce*⁶⁸ the beat of a crotchet.
- + **Arithmetical** – where not possible, an arithmetical subdivision of the beat (i.e., a crotchet in this case) must be used.
- + **Beat Subdivision** – where arithmetical grouping is not possible, do a further subdivision of the crotchet in quarters, as the melody of the music dictates.
- **Bar Emphasis** – grouping must emphasize a *proportional* subdivision of the bar.

⁶⁵ where music activity is silent

⁶⁶ grouping that relates to a single beat instead of a whole bar

⁶⁷ time divisible by two

⁶⁸ to emphasize the prescribed time signature

- + **Half Bar** – if the bar has four beats, the next alternative emphasis is the half bar of two beats, in single or combined values (i.e., a minim or two crotchets) or even a proportional 1 + 3 beats and even 3 + 1 beats.



Figure 43: Emphasis of the Meter

- + **Minim Rest** – in 4/4 time, as you could see, a minim rest should be on the 1st or 3rd beat only, and should never be on the 2nd beat. When it is on the 3rd beat it should be separated into two crotchet-rests (but never separated it if it is on the 1st or 3rd beats).
- + **The Dot** – *The dot is used to extend a note by half of its duration.* The dot should not be used with the crotchet rest, but instead, rather use both the crotchet and the quaver rests together. With notes however, various proportions and combinations not permitted with rests may be used, especially with the use of a slur or a tie (*a curved line joining two notes meaning notes must be played or sung without a break*).
- + **Empty Bar** – each empty bar must be indicated by a semibreve rest.

Odd Time

We have studied several time signatures in this chapter. Take note that 3/8 is *simple* time signature and is grouped in much the same way as 3/4 time – all quavers are joined together in this time signature.

As with all other time signatures, there are rules to observe when filling the bar up with rests.

- **Separate** – rests in 3/8 must be written separately for each full silent beat.
- + **Crotchet Rest** – do not use a crotchet rest for two quavers in this signature.
- + **Empty Bar** – for an empty bar, you should use a semibreve rest, even though it adds up to five more quavers than the duration of your bar.
- **6/8 Time** – in 6/8 time, you almost have two 3/8 times or bars.
- + **Bar Limit** – your quavers are grouped together to the limit of each half-bar, which in this case is made up of three quavers. In a full bar of six quavers, you would have each three quavers joined together on either half, but not across the middle of the 6/8 bar.

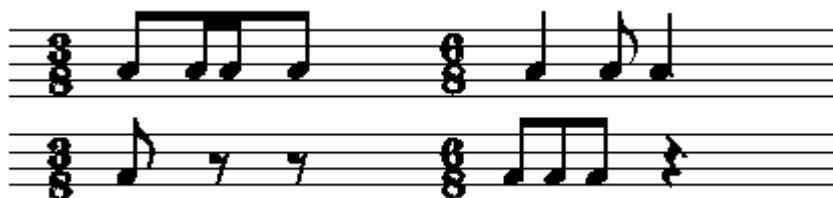


Figure 44: Grouping in 6/8 and 3/4 Time

- + **Full versus Half Bar** – in 6/8 your notation of rests varies:
 - in a full bar, use a semibreve rest,

- for a half-bar, use a dotted crotchet rest,
- should you have a half-bar with one quaver, then fill up the remaining beats (in the half-bar) using separate quaver rests for each silent quaver beat,
- Remember that in 6/8 there are two beats⁶⁹ (even though it appears as if there are six), each with the duration equivalent to a *dotted crotchet*.

Dotted Note Values

All of the note and rest values we have studied so far seem to be fixed. One may use the semibreve for a *four*-beat bar. What if one needed to use a note value with THREE BEATS – or ONE and a HALF beats? It would be difficult to write a meaningful song if all its values were fixed *even* numbers, or combinations thereof. African music boasts *syncopation*⁷⁰ more than many other music styles or cultures – this principle is largely based on the displacement of rhythm. The moment you apply a concept like that, you are faced with a dilemma – *you wish some of the notes were a little shorter, or longer than they actually are*.

This is where the *dot* comes in. By adding a dot to a *note* or *rest* value, you automatically extend it by half its duration. Therefore, it attains a new duration equal to the ORIGINAL VALUE + HALF OF THE ORIGINAL VALUE.

Dotted Examples

The following are examples of what happens to various note and rest values when coupled with a dot.

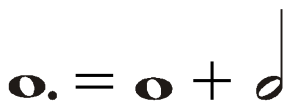


Figure 45: Dotted Semibreve

- **Semibreve** – the example above illustrates a *semibreve* with a dot, i.e., a *dotted semibreve* – the new value as you can see is equals to the *semibreve* plus its *own half* (a minim is the half of a semibreve), in *four-pulse*⁷¹ time signature, this note would receive a total of SIX BEATS.

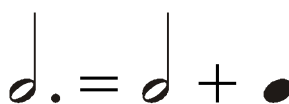


Figure 46: Dotted Minim

- **Minim** – the example above illustrates a *minim* with a dot, i.e., a *dotted minim*. The new value, as you can see is equals to the *minim* plus its *own half* (a crotchet is the half of a minim), in *four-pulse* time signature, this note would receive a total of THREE BEATS.



Figure 47: Dotted Crotchet

- **Crotchet** – the example above illustrates a *crotchet*⁷² with a dot, i.e., a *dotted crotchet* – the new value as you can see is equal to the *crotchet* plus its *own half* (a quaver is the half of a crotchet). In *four-pulse* time signature, this note would receive a total of ONE AND A HALF BEATS.

⁶⁹ refer to dotted time values and compound time
⁷⁰ rhythm displacement to accentuate weaker beats
⁷¹ e.g., four-four time
⁷² also known as a quarter note



Figure 48: Dotted Quaver

- **Quaver** – the example above illustrates a *quaver* with a dot, i.e., a *dotted quaver* – the new value as you can see is equals to the *quaver* plus its *own half* (a semi-quaver is the half of a quaver). In *four-pulse* time signature, this note would receive a total of ONE HALF AND A QUARTER BEAT.

The Double Dot⁷³

Sometimes it becomes necessary to add, a second dot to a note, signifying the ORIGINAL VALUE *plus* HALF (of the original value) *plus* the QUARTER (of the original value). The double dot is therefore used in the same manner as the dot: it adds half of the note, together with a quarter of the same note. This practice is not in popular use, but is still acceptable. Below is an example of this.



Figure 49: Double Dotted Crotchet

The duration of the crotchet in Figure 52 has now been extended by both its half and its quarter. Rest values can also be dotted in a similar manner.

Dotted Rests

The concept of dotted extensions does not apply only to notes; it may be used on rests as well. As a matter of fact, it will probably be used more on rests than on notes.



Figure 50: Dotted Quaver Rest

The dotted quaver rest in Figure 53 has the value of one and half of its original value. As stated before, dotted values are more commonly used than double-dotted values. You can avoid the use of dots by choosing a pulse value that is appropriately divisible. This can also be easily avoided by using a meter that has shorter beats.

SIMPLE AND COMPOUND TIME SIGNATURES

Time signatures are not always *simple*: at times, several beats are *compounded* into one and treated as *one* pulse by using a dotted value.

TIME DIFFERENCES

The differences between the two forms of time signature are as follows:

- **Simple Time** – the denominator becomes the determining factor of the difference between simple and compound time.
 - + **Single Denominator** – in simple time, each beat is represented by an INDIVIDUAL DENOMINATOR (e.g., 2/4, 3/4, 4/4, 2/2 and 3/8).

⁷³ not in popular use, but acceptable

- + **Denominator Sum** – in COMPOUND TIME, each beat is represented by a COMBINATION of beats.
- **Compound Time** – in 6/8 time, there are SIX QUAVERS, but THREE QUAVERS are regarded as a *beat*, therefore, in 6/8 time signature, there are only TWO BEATS (each made up of three quavers). This is always the case.
- + **9/8 Compound Time** – in 9/8 time, there are NINE QUAVERS, but THREE QUAVERS are regarded as *one* beat, therefore, in 9/8 time signatures there are only THREE BEATS.
- + **Time Signature Variation** – although beat values derive their value from the denominator (i.e., 2/4, 2/4, 4/4, etc.), in compound time the denominator value as it appears in time signature (6/8, 9/8), is not regarded as an indication of a beat value, it only represents a third of the beat value. In 2/4 time, the beat value is a 4th note (or otherwise known as a ¼ note), although in 6/8 time the beat value is *not* an eighth note.

Sub-Division Of Time Values

Of all the note values discussed in this book, the breve is the longest. However the breve is hardly ever used in modern pop music notation. Therefore, in the table of figures below, the longest value shown is the *semibreve*, and the shortest is the *semi quaver*.

Figure 54 compares note values by *size*, with the purpose of illustrating the *relative* value of each note. We all know that one loaf of bread contains two half-loaves; therefore it is easy to understand how eating two halves would fill you up as much as if you had eaten a whole loaf.

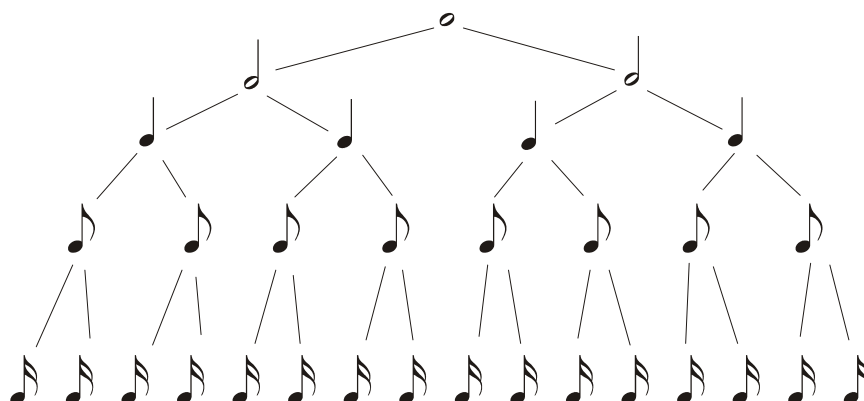


Figure 51: Comparison of Note Values

Play around with the values in your mind. For example, check how one *minim* is made up of *eight* smaller notes, called *semi quavers*; or how one *crotchet* is composed of two *quavers*. Do the same with the rest values in Figure 55.

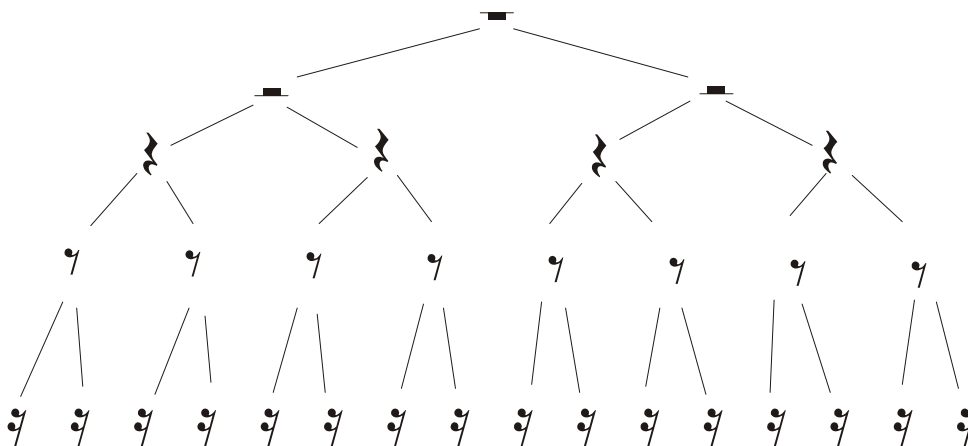


Figure 52: Comparison of Rest Values

One may wonder why I am taking time illustrating a concept that is so mathematically obvious? The reason is that the whole idea of reading music is based on the concept of *note duration relationship*. **A note is only as meaningful as its time signature – APEL Truth.**⁰⁹⁶

KEY SIGNATURE

We have discussed the *time* signature and how it denotes the concept of *time* in music. In the same way, the key signature will indicate what key the music is written in. The important thing to remember is that each *key* has its own signature, because each has a different number of inflections, i.e., FLATS (=) and SHARPS (<) in each key.

Major Scales								
Key C:	C	D	E	F	G	A	B	C
Key D:	D	E	F<	G	A	B	C<	D
Key E:	E	F<	G<	A	B	C<	D<	E
Key F:	F	G	A	B=	C	D	E	F
Key G:	G	A	B	C	D	E	F<	G
Key A:	A	B	C<	D	E	F<	G<	A
Key B:	B	C<	D<	E	F<	G<	A<	B
Key D=:	D=	E=	F	G=	A=	B=	C	D=
Key E=:	E=	F	G	A=	B=	C	D	E=
Key G=:	G=	A=	B=	C=	D=	E=	F	G=
Key A=:	A=	B=	C	D=	E=	F	G	A=
Key B=:	B=	C	D	E=	F	G	A	B=
Key C=:	C=	D=	E=	F=	G=	A=	B=	C=
Key C<:	C<	D<	E<	F<	G<	A<	B<	C<
Key F<:	F<	G<	A<	B	C<	D<	E<	F<

Figure 53: Major Scales with their Inflections

No two keys will have the same number of *sharps*; and no two keys will have the same number of *flats*. The NUMBER OF INFLECTIONS⁷⁴ will tell you which key it is. The following table indicates the number of inflections in each major scale.

Listing of Keys by Inflections	
C=0 sharps	C=0 flats
G=1 sharp	F=1 flat
D=2 sharps	B=2 flats
A=3 sharps	E=3 flats
E=4 sharps	A=4 flats
B=5 sharps	D=5 flats
F<=6 sharps	G=6 flats
C<=7 sharps	C=7 flats.

Figure 54: Major Scale Key Signature⁷⁵

As an exercise, try to construct these scales on your own without referring to the table. When you have finished, compare your findings with the table.

⁷⁴ a term in reference to both SHARPS and FLATS

⁷⁵ by the number of inflections

WHY FLATS OR SHARPS AND NEVER BOTH?

Have you never wondered why some keys are indicated by flats and some by sharps? Or why none of the keys are indicated by combinations of sharps and flats?

This is because in order to modify the base alphabet (A, B, C, D, E, F and G) set used for constructing a scale into another key then C major, one can adjust the tone and semitones distances between notes either by raising or lowering the notes in order to create the required T-T-S-T-T-S note relationships.

The rules governing this modification process require that the new scale both **RETAINS ITS ALPHABETICAL SEQUENCE** and **USES EACH ALPHABET LETTER ONLY ONCE**. Coincidentally, whichever method of modification (either raising or lowering) the first change *takes*, will by *default* apply to the rest of the modifications (or T-S adjustments).

NOTATION OF KEY SIGNATURE

Now that we know what the signatures look like, let us look at how the key signature is written on the staff. As with all other things in musical notation, denoting the key signature is also governed by universal convention and tradition.

In order to fulfill its purpose, a key signature would have to be universally⁷⁶ understood by various *language* groups across the world.

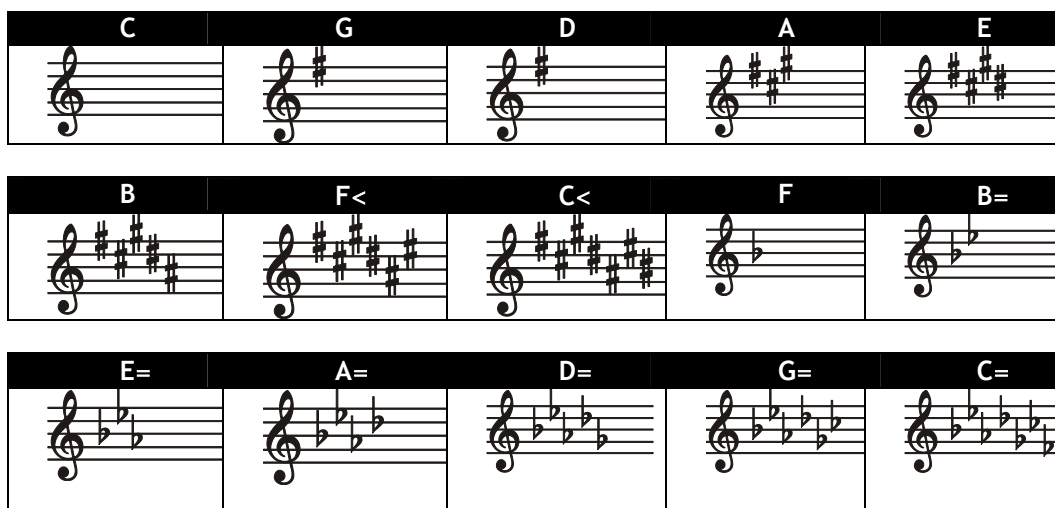


Figure 55: Notation of Key Signature in the G Clef

For the purpose of this book, we have limited the scope of key signature to the G clef⁷⁷; should you wish to study this further, please refer to any study text of your choice.

⁷⁶ across the world

⁷⁷ also known as the treble clef

THEORY TO MUSIC

In this chapter we will deal with fundamentals that support the knowledge of music theory you have acquired by beginning to apply it.

TECHNICAL DEGREES

It is important for music to be understood globally. For example, suppose a lawyer were to tell you that, by default, when a man named *Olabode*⁷⁸ dies, it is law that his possessions be given to Mrs. Oni (a fictitious person for the purposes of our illustration) if at the time of his death he is not married. Unfortunately, the rule cannot apply to everybody, because when Calvin dies we cannot give his possessions to Mrs. Oni. If we wanted to apply the same rule we used with Olabode, we would have to understand the logic upon which the '*Olabode principle*' was based, and then apply that to Calvin. However, if we made a general statement, namely, "THE LAW REQUIRES THAT A DECEASED SON'S POSSESSIONS BE GIVEN TO HIS MOTHER, UNLESS HE WAS MARRIED AT THE TIME OF HIS DEATH," then it would make better sense, and be universally applicable. We would suddenly understand who, in the case of Calvin, the 'mother *person*' is, instead of referring to a "*Mrs. Oni equivalence*." It is necessary to have *international* terminology in music, terminology that applies to EVERY KEY (i.e., a global language).

DEGREES⁷⁹

Degrees in this context are not academic qualifications, but a reference to notes of a scale. Each note in a scale is a *degree* of or a *member* in the scale, and can be referred to by numbers, i.e., 1, 2, 3, etc., or letters, e.g., C, D, E, etc., or even *standard technical terms*.

In the following table, we introduce a system of naming the notes of a musical scale by syllables (instead of alphabet letters) called SOL-FA — this will be discussed in detail later in the book.

⁷⁸ a Yoruba name meaning 'wealth and prosperity has returned'
⁷⁹ not academic qualifications

Degree In The Scale	Technical ⁸⁰	Arabic ⁸¹	Roman ⁸²	Sol-fa ⁸³
1st note	TONIC	1	I	d [doh]
2nd note	SUPER TONIC	2	II	r [ray]
3rd note	MEDIANT	3	III	m [me]
4th note	SUB DOMINANT	4	IV	f [fa]
5th note	DOMINANT	5	V	s [soh]
6th note	SUB MEDIANT	6	VI	l [lah]
7th note	LEADING NOTE	7	VII	t [te]
8th note	TONIC	1 or 8	I or VIII	d [doh]

Figure 56: Degree Names

GENERIC NAMES ARE EFFICIENT

If one does not use these *degree* names, it becomes necessary to specify notes in each key by exact names. One could address a congregation of 500 members and say, "Everybody, bring your spouse to the couples' barbeque on Saturday."

Alternatively, you would have to be specific and address each of the 250 husbands individually: "Mr. Jones, bring Mrs. Jones to the couples barbeque on Saturday, Mr. Brown, bring Mrs. Brown ... ". An hour later, you would probably still be at it. Generic *vocabulary* saves time, helps people understand quickly and makes things easier.

INTERVALS REVISITED

Intervals are simply comparisons of distance (denoted by interval type and number of notes) between one note and another. In the same way that knowing the difference in distance between a trip from *Cape Town* to *Johannesburg* and a trip from *Pretoria* to *Johannesburg* is helpful in relating the three cities, intervals can help us relate notes to each other.

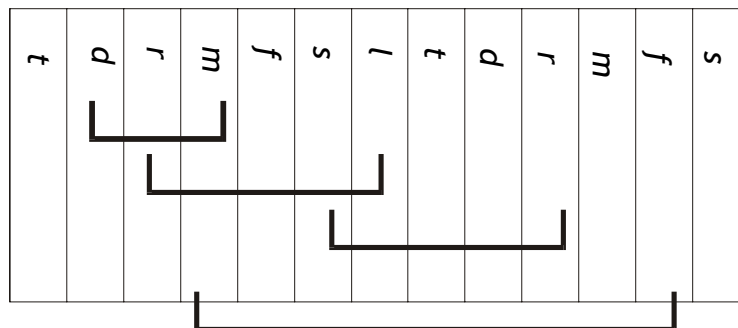


Figure 57: Interval Concept

There are two main kinds of intervals, SIMPLE and COMPOUND. In each category, there are NATURAL and CHROMATIC intervals. You could therefore have a *simple natural interval* or a *simple chromatic interval*.

SIMPLE INTERVALS⁸⁴

Simple intervals are intervals which all fall within one octave⁸⁵. All intervals are based on the MAJOR SCALE of the root (starting note). If you are measuring an interval from *doh* to *ray*, you must use the scale represented by *doh* to calculate your intervals, i.e., in the key of C, *doh* would be represented by C, therefore you use the scale of C. However, in the key of D, *doh* is represented by D and so forth.

⁸⁰ of or relating to technique

⁸¹ numbers as we know them

⁸² based on Roman numerals

⁸³ a system of naming the notes of a musical scale by syllables instead of letters

⁸⁴ within the same octave

⁸⁵ a range on notes from one tonic to another (or scale degree to the next same scale degree)

For example, suppose you were to identify the interval *C to D*, you would have to follow certain steps. Before you start, you must always *assume that C (or whatever the starting note of the intervals is) is doh* and therefore, implying that you must use the major scale of C. The name of an intervals is made up of its *type* and *size* together, e.g., Major 2nd – where *major* is the *type* and 2nd is the *size*.

- **Step One** – you must identify the first note in the interval to be measured as the major scale to be used and WRITE THAT MAJOR SCALE OUT.
- **Step Two** – label that major scale with degree numbers, i.e. C (1); D (2); E (3); F (4); G (5); A (6); B (7); C (8). Alternatively, you could do in table form as illustrated below.

C	D	E	F	G	A	B	C
1	2	3	4	5	6	7	8

Figure 58: Degree Numbering Table

- **Step Three** – once that is done, mark the required notes, i.e., C (number 1) to D (number 2) and do the following in order to identify the interval:
 - + **Determining the Type** – consult the TYPE REFERENCE TABLE (Figure 62) that shows you the TYPES of number-chains.⁸⁶ There will be two initial types of intervals, one which supposedly sounds perfectly in harmony (viz. PERFECT), and another which is dissonant (discordant) but represents the form of the MAJOR scale (viz. MAJOR). If an interval is represented by *degree pair '1-2,'* what *type* if interval is it? In this example, a MAJOR INTERVAL. When identifying the type of your interval, you will notice that no *number-chain* can be *both* types of intervals, i.e. both MAJOR and PERFECT. A pair like 1-2 will always be a MAJOR type and *never* a PERFECT type as well (or sometimes).

Type	Sizes
MAJOR	1-2, 1-3, 1-6, 1-7
PERFECT	1-1, 1-4, 1-5, 1-8

Figure 59: Type Reference Table (Natural Intervals)

- + **Determining the Size** – having noted that C-D falls under the MAJOR type, because it represents or is represented by the 1-2 number pair, we then derive its size from the *second* number in the pair 1-2 (see 2nd column in Figure 62). C-D becomes a 2nd because of the '2' in 1-2. Therefore, C-D is a MAJOR 2nd. Notice that natural intervals can only fall into one of two categories, namely MAJOR and PERFECT. Depending on their size, 1 becomes 1st, 2 becomes 2nd, 3 becomes 3rd, 4 becomes 4th, 5 becomes 5th, 6 becomes 6th, 7 becomes 7th and 8 becomes 8th or Octave.

COMPOUND INTERVALS⁸⁷

In contrast with *simple* intervals, compound intervals are simply, those intervals that span more than one octave range. They are *typed* in the same way as simple intervals, but have 'bigger sizes' because of the *wide* octave span. C-D is a simple interval because it falls within one octave, while C-d is a compound interval since it falls within two octaves. *C-D, C-d, C-d' and C-d'' are not the same.* Study the following table to understand how we indicate octaves ranges by using a combination of CASE, [,] and ['].

C _i	C	Middle-c	c'	c''
CAPITAL and _i	CAPITALS	LOWERCASE	LOWERCASE and '	LOWERCASE and ''

Figure 60: Octave Indication Formula

The harmonic effect of compound intervals will be similar to that of simple intervals, although compound intervals may *tolerate* more dissonance because of the number of overtones⁸⁸.

⁸⁶ or number pairs

⁸⁷ spanning beyond one octave

⁸⁸ a harmonic with a frequency that is a multiple of the fundamental frequency

C	D	E	F	G	A	B	C	D	E	F	G
1	2	3	4	5	6	7	8	9	10	11	12

Figure 61: Compound Table Numbering

Interpretations of the compound interval *sizes* and *types*, will also be based on a similar *reference* table, which is based on an *extended* number table, i.e., it goes beyond the octave's degree names.

Type	Sizes
MAJOR	1-9, 1-10, 1-13, 1-14
PERFECT	1-8, 1-11, 1-12, 1-15

Figure 62: Compound Intervals — Type Reference Table

For example:

- c - d' is a MAJOR 10th
- C - D is a MAJOR 2nd
- C - c' is a PERFECT 15th
- C - c is a PERFECT 8th (or octave).

Remember that the sign (') is used to indicate the fact that a note is in the next octave – and each increment of (') means a further higher octave, e.g., (") would be two octaves higher than our middle C octave.

NATURAL VERSUS CHROMATIC INTERVALS

When an interval occurs on the notes of a natural scale (i.e., major scale) it is *natural*, and when it occurs on *one note of the major scale* and another note *foreign* to the major scale, then it is CHROMATIC⁸⁹.

C to D is NATURAL, but C to D \flat is CHROMATIC. When a chromatic interval occurs, you will have to derive its name from a natural interval's naming convention. This is because there are no *chromatic* notes in a major scale. The reason being that we use the major scale as a point of *reference*; e.g., C to F \flat cannot fall into a major scale, but the *foundation* or *origin* of C to F \flat is in a *major scale*. What is the *origin* of C to F \flat ? It is simply C to F.

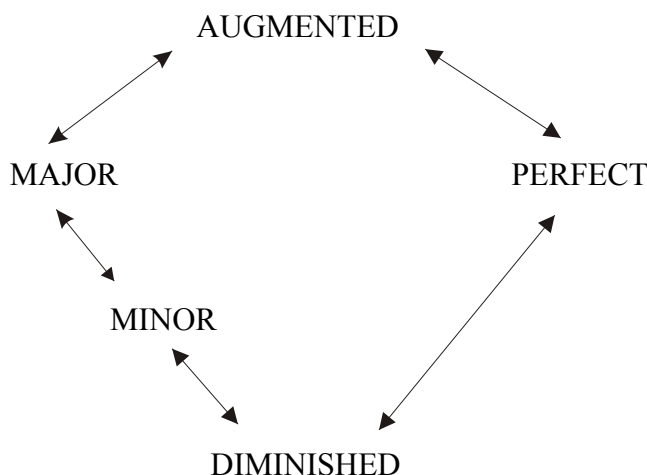


Figure 63: Interval Conversion Diagram

Next, we figure out that CF (or C-F) must have been converted to CF \flat . How? The size of CF \flat had to be *increased* by a SEMITONE, i.e., F was raised to F \flat . This sounds to me like it would have been a *perfect fourth interval* (in its original form as C - F), but now it is a *modified*⁹⁰ *perfect fourth interval*. How do we name modified intervals? Looking at Figure 66, arrows from one interval type of another indicate the name changes that are possible.

⁸⁹ (music) based on a scale consisting of 12 semitones
⁹⁰ by an inflection of some sort

MODIFIED INTERVALS

We might as well set up another reference table to simplify the naming of *modified intervals*.

The following intervals can be RAISED BY A SEMITONE:
MAJOR becomes AUGMENTED
PERFECT becomes AUGMENTED
MINOR becomes MAJOR
DIMINISHED becomes PERFECT or MINOR

Figure 64: Semitone Raising Reference

If you analyze the preceding *Interval Conversion Diagram*, you may notice that each distance between any *two* interval types is semitones⁹¹, even the distance between *perfect* to *diminished* is a semitone.

It might appear to the eye as if it is a *tone*, considering that from a MAJOR INTERVAL TYPE to a DIMINISHED INTERVAL TYPE is a tone distance, one might assume that it should also be the same with the perfect and the diminished. It is easily explained by understanding that the conversion is based on the *conversion*, not the distance. In other words, C < and E = is a theoretical pair of notes, we cannot read the interval size and type unless we relate the pair to a major scale and then work our conversion from that scale's technical degrees.

The following intervals can be RAISED BY A TONE:
MINOR becomes AUGMENTED
DIMINISHED becomes AUGMENTED

Figure 65: Tone Raising Reference

The following intervals can be LOWERED BY A SEMITONE:
AUGMENTED becomes MAJOR or PERFECT
MAJOR becomes MINOR
PERFECT becomes DIMINISHED
MINOR becomes DIMINISHED

Figure 66: Semitone Lowering Reference

The following intervals can be LOWERED BY A TONE:
AUGMENTED becomes MINOR or DIMINISHED
MAJOR becomes DIMINISHED

Figure 67: Tone Lowering Reference

EXAMPLES OF SIMPLE AND CHROMATIC INTERVALS

Interval *notation* is the same when written on a staff, as it is when written in *alpha*⁹². The names are merely translated to the staff. Staff notation is obviously more illustrative on a staff because the notation visibly conforms to the INTERVAL NAME *derivation*⁹³.



Figure 68: Simple Natural Intervals

⁹¹ the modification always happen by semitones according to our diagram

⁹² alphabet based

⁹³ working out how the interval was modified



Figure 69: Simple Chromatic Intervals

INVERSIONS⁹⁴ OF INTERVALS

Why would one want to invert an interval? Because it happens in everyday life when people sing or play music? How do we do it on paper?

Again, the answer must conform with *generic* or *global* interpretation. Remember that *global* does not refer to the geographic aspect of music, but the *key* aspect; it has to be global across all twelve keys in order to simplify the process of explaining music and its characteristics in a manner that is applicable to all keys, without having to list each key separately.

Nothing stops intervals from being written above or below a given note. Logically, there must be a relationship or similarity of some sort between C – F and F – C. Inversion is the explanation of this similarity we are referring to.

You must realize, however, that intervals *change* names when they are repositioned to either above or below a given note. They *do not* keep the same name. Such intervals are said to be *inverted*.

Rules of Inversion

An *inversion* of an interval is easy to understand – it is all based on a simple rule.

- **Size Sum** – the size of the inverted intervals must add with the size of the original 'uninverted' interval to a sum of NINE, e.g., a 2nd would add up to NINE with a 7th ($2 + 7 = 9$) and a 5th would add up to NINE with a 4th ($5 + 4 = 9$). Alternatively, the 'uninverted' interval will become remainder of current size from nine, i.e., a 2nd becomes $9 \text{ minus } 2$, which is a 7th.
- **Name Conversion** – the *name* of the interval changes as indicated in Figure 73.

Interval Conversion Reference
MAJOR becomes MINOR and vice versa
AUGMENTED becomes DIMINISHED and vice versa
PERFECT becomes PERFECT and vice versa
OCTAVE becomes PRIME and vice versa

Figure 70: Changing Intervals Types

Look at the illustration and see how the same intervals are inverted to take new names.



Figure 71: Interval Inversion

Easy Inversions

Remember that, in order to write an interval below a given note, you can save yourself time if you work it out from its *inversion*:

⁹⁴ moving the upper component of an interval to the bottom position or vice versa

- **Find the Proposed Inversion Above** – you must identify the note before it has to be written as an inversion.
- **Write the Note an Octave Lower** – once identified, write the note below the root of the interval.
- + **Major 2nd Example** – to write a Major 2nd below a given note, you could work it out as a MINOR 7th (7 being the remainder from 9 *minus* 2) above the given note and then move it to the first octave position below the root note – *it will automatically be correct!*

THE USE OF FOREIGN LANGUAGES

In musical notation, certain things cannot be conveyed to the singer or player by using music symbols, *words* are then used to say what kind of expression, feeling, mood, emotion, manner of performance, at cetera, the composer had in mind. These words are a *collection* of vocabulary from the languages of the many great composers from the past. Unfortunately for you and me, most of them spoke *foreign* languages.

You will see words and phrases in *French* and *German*, although not as many as in *Italian* (words and phrases). These words have to be known by heart since they appear in most sheet music and when they do, there is not going to be a spare second in the middle of a score⁹⁵ to look them up in a dictionary. Learn as many of these as you can, so that you will be ready to carry out any *foreign* instruction the composers might have used on their music scores.

VARIOUS EXPRESSIONS

Tone Indications

For example, there are several words used to indicate the required tone or tone intensity or related expressions like *forte*, *mezzo forte*, *piano*, *mezzo piano*, *crescendo*, *decrescendo*, *diminuendo*, *fortissimo*, *pianissimo*.

Tempo Indications

Most of the following words are expressions related to performance speed, like *allegro*, *allegretto*, *andante*, *moderato*, *ritardando*, *adagio*, *andantino*, *presto*, *accelerando*, *a tempo*.

Articulation And Character Indication

Character may also be expressed using words like *legato*, *staccato*, *forzando*, *cantabile* and *semplice*.

Score And General Indications

There are additional words which are used for general score indications like *da capo*, *fine*, *da capo al fine*, *dal segno*, *al segno* and *fermata*.

CHORD NOTATION AND CONSTRUCTION

Intervals help us with the basic construction of melodies, but melodies without accompaniment will most likely sound dull. That is why, after studying intervals, we have to use them as part of our music *tools* together with other aspects of music.

Intervals are also greatly used in the construction of chords. When one starts using intervals in chord construction, one must find an easier abbreviated manner of writing interval definition. This will make the identification of intervals quick to write.

⁹⁵ a written form of a musical composition; parts for different instruments appear on separate staves on large pages

Basic Interval Notation
MAJOR = M
MINOR = m
PERFECT = P
AUGMENTED = + or Aug
DIMINISHED = ° or Dim, even - (minus sign)
R = Root ⁹⁶

Figure 72: Interval Notation Abbreviations

INTRODUCTION TO CHORDS

Chords are *COMBINATIONS* of notes. If you recall, our definition of music described music as 'the art of arranging sounds into sequences and combinations,' which is what we are talking about in this section. Notes combines into chords are usually played *simultaneously*, but sometimes they are played in a *BROKEN FASHION*, i.e., *note by note*, even though their combined effect is harmonious — this is known as *arpeggio*⁹⁷.

Chords are simply made up of intervals (which we discussed in the previous section). First, a *ROOT* note is chosen on the basis of the *intended* chord and key, after which the rest of the chord's *notes* are added based on the specific chord type's *formula of intervals*, that is specific intervals are added on top of the root note to create that chord. A chord will *always* have a *ROOT*.

FORMULAE FOR CHORDS

There are many kinds of chords that have individual effects and various formulae. Each chord is named according to one or more of its own intervals.

Chord Type	Abbreviation	Member Intervals
MAJOR	M	R, M3, P5
MINOR	m	R, m3, P5
7th	7	R, M3, P5, m7
MAJOR 7th	M7	R, M3, P5, M7
MINOR 7th	m7	R, m3, P5, m7
MAJOR 6th	6	R, M3, P5, M6
MINOR 6th	m6	R, m3, P5, M6
AUGMENTED 5th	+5	R, M3, +5
DIMINISHED 5th	°5	R, M3, °5
SUSPENDED 4th	sus4	R, P4, P5
SUSPENDED 7th	sus7	R, P4, P5, m7
6th ADDED 9th	6/9	R, M3, P5, M6, M9th
7th FLATTENED 5th	7=5	R, M3, °5, m7

Figure 73: Chord Illustration

These are just a *few* of the chord types. There are *many* more. I suggest that you look-up the rest of the chords, keeping in mind that you will probably never learn all the chord types there are to know. Learn what you need, keep what you want to use. **Music is cosmic, learn what you need, use what you feel — APEL Truth.**⁹⁷

A chord with four notes is called a *TETRAD*, while a chord with three notes is called a *TRIAD*. *Triads* are easy to write, once you have figured out your intervals, you just position them accordingly on the staff. For example, the formula for the *MAJOR* chord is *the PRIME (1) or ROOT (R), the MAJOR 3rd (M3) and the PERFECT 5th (P5)*. This was presented earlier in the book.

CHORDS OF THE MAJOR SCALE

In this chapter, we introduce the construction of a few new *basic* chords based on a *ROOT*, with the 3rd and 5th selected purely from the major scale. But before we do that, let us analyze the chords of the major scale.

⁹⁶ not an international standard

⁹⁷ a chord whose notes are played in rapid succession rather than simultaneously

Chords of the Major Scale						
I	ii	iii	IV	V	vi	vii ^o
CEG	DFA	EGB	FAC	GBD	ACE	BDF

Figure 74: Basic Chords of Major Scale

- **Major Chords** – I, IV and V are MAJOR CHORDS.
- **Minor Chords** – ii, iii and vi are MINOR CHORDS.
- **Diminished** – vii^o is a DIMINISHED CHORD.

Let us review some of the findings from the preceding bullets:

- + **R, m3, P5** – these *interval notation abbreviations* represent the *root, minor third* and *perfect 5th* respectively. In each key, the alphabet names represented by *R, m3* and *P5* will be totally different. For example, in the key of D, 'D' will be the root, 'F' will be the minor 3rd (D-F is a minor 3rd), and 'A' will be the perfect 5th. The *m3* chord of D therefore, will be 'D, F, A.' The chord would have been a major chord except for the deviation of the *m3* (changed from *M3*), this *m3* together with the prime (root) and perfect 5th are called a MINOR CHORD (because of the presence of the MINOR 3rd INTERVAL). The minor 3rd interval will also be seen in other triads of the scale such as in iii and iv.
- + **R, m3, ^o5** – in the *vii^o chord* however, the *minor 3rd* interval is accompanied by a further deviation more significant to the chord than the *m3* itself, i.e. *B-F*, a DIMINISHED 5th INTERVAL. Hence the chord is called a DIMINISHED 5th chord. Notice how the prevailing interval always becomes the *naming factor* to the chord, although there are other intervals in the chord.

Three kinds of chords in the major scale
MAJOR CHORD - Prime, Major 3rd, Perfect 5th.
MINOR CHORD - Prime, Minor 3rd, Perfect 5th.
DIMINISHED CHORD - Prime, Minor 3rd, Diminished 5th.

Figure 75: Basic Chords of the Major Scale

CHORD POSITIONS

In Figure 78, the chords are written on the staff in the key of C major. When a chord is written starting from the prime, it is said to be in the *root position*, i.e., in key C major for the TONIC MAJOR, CEG⁹⁸ is in the *root position*, EGC is in the *first inversion* and GCE is in the *second inversion*.

Look at the illustration, and notice how the chords are notated on the staff each type with its own unique intervals.

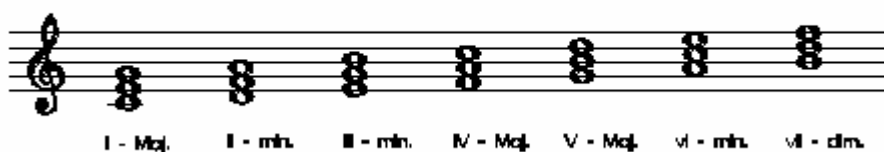


Figure 76: Notation of the Basic Chords

CHORDS OF THE MINOR SCALE

In the *harmonic minor scale*, there are chords similar to the major scale types, except we now also see the introduction of the AUGMENTED⁹⁹ TRIAD. Look at the chords of the harmonic minor scale degrees of C, also based on the ROOT, 3rd and 5th of purely, notes from the harmonic scale.

⁹⁸ note names in the tonic major chord

⁹⁹ chord containing an augmented interval

Harmonic Minor of C	
C, D, E=, F, G, A=, B>, C	

Figure 77: Harmonic Minor of C

From this scale we can create seven chords; in the same manner we created chords for the major scale of C. Once these chords are created, we can analyze them against the chords of the major scale.

Chord	Intervals
I	C, E=, G
ii°	D, F, A=
III+	E=, G, B>
IV	F, A=, C
V	G, B=, D
VI	A=, C, E=
Vii°	B>, D, F

Figure 78: Basic Chords of the Minor Scale

- **Minor** – you can see that *i* and *iv* are MINOR CHORDS.
- **Diminished** – *ii°* and *vii°* are DIMINISHED CHORDS.
- **Major** – V and VI are MAJOR CHORDS.
- **Augmented** – III+ is an AUGMENTED CHORD. You already should understand the MAJOR, MINOR and DIMINISHED TRIADS. The new chord is the AUGMENTED CHORD.
- + **Construction of the Augmented Chord** – let us look at III+ as taken from the harmonic minor scale of E=. E= - G is a MAJOR 3rd interval, but E= - B> is an AUGMENTED 5th interval, therefore the triad will be named after this prevailing new and *foreign* (chromatic) interval as the AUGMENTED 5th CHORD.



Figure 79: Notation of Basic Chords of the Minor Scale

INVERSIONS OF CHORDS

Just as we inverted intervals, chords also, can be inverted. Take for example the triad E=GB> which is in the root position, it can be inverted to GB>E= or B>E=G.

- **Inversion of E=+** – let us use this chord's inversions to understand *inversion*, but first, we must break the chord down.
 - + **Root** – the ROOT POSITION is E=, G, B>.
 - + **1st** – the FIRST INVERSION is G, B>, E=.
 - + **2nd** – and the SECOND INVERSION is B>, E=, G.
- **Structure Type** – chords have two forms of structure, namely, CLOSE and OPEN.

- + **Close Structure** – chords are said to be in CLOSE STRUCTURE when their intervals are written as close to each other as the chord permits. In the major chord of C, CEG is in CLOSE¹⁰⁰ structure, but CGE is not, it is open¹⁰¹, irrespective of the chord position.
- + **Open Structure** – whenever a chord is written such that any of the next logically note *above* or *below* a chord member is omitted or skipped, then that chord is said to be *open*. Simply because there is an *opening* which came about by the removal of a note from a logical position in the chord.

PUTTING IT ALL INTO A SONG

Now that we have studied all these wonderful things, how do we put it all together into a song?

A SHORT SUMMARY

Let us look at what we have studied in this chapter:

- **Music Definition** – music was defined as *the art of arranging sounds (pitch) into sequences (scales) and chords or harmony (combinations)*. We studied the basic elements of music, namely, TIME, PITCH and a little HARMONY – which, according to my introduction is a *sufficient* foundation for APEL.
- **Time and Note Values** – on the subject of *time*, we looked at notes (or rests) and their values. We also looked at how these things are written on the staff.
- **Scales and Keys** – we then looked at *pitch* and understood how the notes are named, how they form *scales* and *keys*.
- **Intervals and Chords** – finally, we looked at *intervals* and how they become *chords*. We must now start putting some of these together to make sensible music.

AN ADDITIONAL PERSPECTIVE

Some additional aspects of music that we did not discuss in detail must be dealt with in this section.

The Compound Beat

Concerning *time*, we will look at *compound pulse* and related aspects – this is going to be necessary when writing or composing melodies. In order to write intelligible melodies, it will be necessary to understand not only the dynamics of time, but also the implied *characteristics* of time. The best example to illustrate this is compound time.

Beat Analysis						
Implied Beat:	1a	1b	1c	2a	2b	2c
Metronome Beat:	1			2		
Accent:	Strong			Weak		

Figure 80: Analysis of a Compound Time Beat

Implied Beat¹⁰²

By the term *implied beat* we mean a beat understood *logically* or by *musical perception*. It is known to be there even though one is not necessarily accentuating it by actually counting or beating a metronome tone to it. IT IS FELT IN THE MOVEMENT OF THE MUSIC.

¹⁰⁰ without skipping the 'next in line' chord member

¹⁰¹ it has an opening where the note E was supposed to be, between C and G

¹⁰² felt, but not logically discernible

Metronome¹⁰³ Beat

The metronome beat will be the audible beat which your foot, or a tempo device like a *metronome* will play out to you *audibly*. In 6/8 time, although theoretically we have said that there are SIX beats of the *QUAVER* size, we only count TWO beats of the *DOTTED CROTCHET SIZE*. That is also what the metronome, or the choir conductor focuses on for the feel of the music.

Accent or Pulse

The *accent* or *pulse*, is what determines the motion of the music. In 6/8 time, the song will hook itself on the first beat of the bar (i.e., 1a or 1), and occasionally on the second beat of the bar (i.e., 2a or 2). If the song movement seems to hook itself differently or in contrast with these beats in, then it is not meant to be 6/8 time. The pulse and accent of a song also determines the choice of *meter* (time signature). The frequency of the *strongest* and that of its *second strongest* beat will inform the *strong* and *weak* beats of time signature for that song.

12/8 and 4/4 TRIPLE TIME

When using 12/8, you will notice that the time feels the same as the *triplet time* of 4/4. In 4/4 triplet time, you have FOUR CROTCHET BEATS, but each beat is played as three quavers, and each of those quavers can actually be doubled and quadrupled as the need arises.

ADVANCED RHYTHM

The purpose of this lesson is to analyze the way time works in notation, after which you should be able to read complicated notation yourself.

- **Downbeat** – when the foot tapping to the music goes down, it is on the *downbeat*.
- **Upbeat** – in order to get ready for the second *downbeat*, the foot needs to come up, this happens exactly halfway through the end of the current beat, just in time for the next beat. This is the *upbeat*.

The DOWN and UPBEAT are an important part of understanding rhythm. Let us look at it again from another angle. When beating time to music, your hand or foot makes *two* main movements, the *downbeat* and the *upbeat* movement.

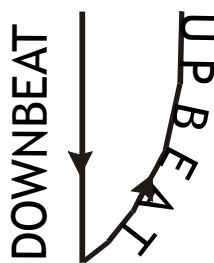


Figure 81: Downbeat and Upbeat

The *downward* movement strikes at the beginning of the beat, the *upward* movement (although it does not literally strike against anything), figuratively strikes on the half beat. You must understand that each beat is made up of 1 FULL BEAT, or 2 HALF BEATS or 4 QUARTER BEATS.

Usage of Syllable Codes

As you can see the beats are divided with the use of syllable codes:

- **Ta** – for the downbeat and TE for the upbeat.
- **Fa** – for the quarter of the downbeat and FE for the quarter of the upbeat.

¹⁰³ a clicking pendulum indicates the exact tempo of a piece of music

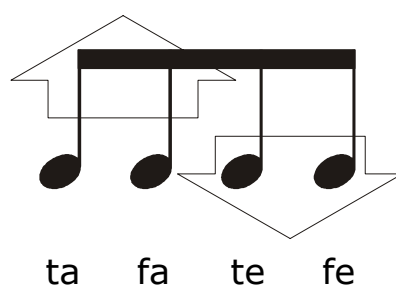


Figure 82: Syllable Codes

When using *syllable codes*, one can identify rhythm without a problem; each rhythm combination is describable using these syllables. A single crotchet, for example denotes TA, while two quavers are TA¹⁰⁴-TE¹⁰⁵, etc.

DEVELOPING RHYTHM INTO A SONG

You will notice that the best way to understand rhythm is by *subdivision*: rhythm for a full song is not as easy to remember as rhythm for a chorus, or a phrase, or a motif¹⁰⁶, or even for a single beat – on the understanding that rhythm in music forms different parts of a song. *Music starts with a motif, which develops into a phrase, the phrase forms a melody.* Melodies combine into *sections* of a song.

The SECTION of a song refers to subdivisions of the main song; each song will have sections such as INTRODUCTION, VERSE (or STANZA), CHORUS (or REFRAIN), BRIDGE (or MIDDLE or BREAK) and ENDING.

Types of songs can vary from *war* songs, to *love* songs, to *praise* songs, to *worship* songs, to *Christmas* songs, etc. Imagine the structure of a typical song, with all the suggested sections:

SECTION	DESCRIPTION
Introduction	Most songs start with an introductory arrangement which gives you a feel of what is about to follow, usually a few instruments will do that 'leading in' of the song. I suggest that you listen to the radio on the lookout for <i>introductions</i> of songs.
VERSE ONE	Once your introduction has finished playing, you get right into verse one, this is usually where the singer starts to sing, but the place where the singing start really varies from composer to composer, as you will see when you start writing your own songs.
Chorus	Between verses, one usually finds a <i>theme</i> or hook, or part of the song by which it is usually remembered by. If you have sung hymns before, you will probably agree that we tend to recognize them more by their <i>chorus</i> melodies, rather than their verse melodies.
VERSE TWO	Here, you resume the verse structure of your song, as your music continues. Verse two will probably sound much like verse one.
Chorus	Like the verse structure, the chorus also returns (except the chorus is sung exactly or almost exactly the same each time), more often than not, the chorus is repeated more than the verse structure is.
Bridge	One can get bored of the same 'verse and chorus' structure, in which case, a composer usually throws in a <i>relief</i> structure (or piece) round about here, called a <i>bridge</i> . The bridge plays different from the rest of the song, and sometimes sounds more like an 'introduction in the middle' – the bridge is also known as the <i>middle</i> or a <i>break</i> , literally taking a break from the song.
Chorus	Same as before, notice this is our third chorus.
Ending	Simply, the closing down of a song. Many songs do not have specially composed endings, especially because with the use of audio technology, the sound engineers tend to fade the songs off; in live performances though, a structured ending is more appropriate.

Figure 83: Form of a Song

¹⁰⁴ downward half beat

¹⁰⁵ upward half beat

¹⁰⁶ smallest distinct music idea

MELODY AND PHRASES

We saw how each part of a song is made up of a *melody* or *melodies*. A *melody* is a complete sentence of a *tune*. However, in music just like in spoken or written language, a sentence is made up of PHRASES. Phrases are the most important part for constructing meaningful melodies, or in the bigger picture, *good* songs.

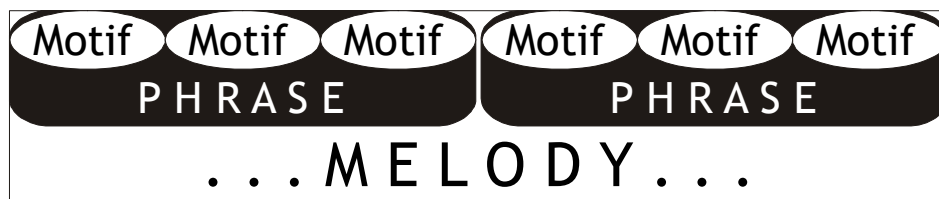


Figure 84: MOTIF to MELODY

Phrases are logical portions of a melody; most melodies are made up of two, three and even four phrases. The concept of *question and answer* features in a melody where the first part of a melody might pose a theme that requires a *response*. This is referred to as *question & answer*¹⁰⁷.

A phrase must have *logic* and *structure*, which in most cases is felt in the CURVE¹⁰⁸ the melody assumes: either upwards or downwards or slightly upward and then fully downward, and sometimes even stationary, depending on the *taste* of the composer.

BAR

A bar is simply the smallest *pulse cycle* in a song. In a song that counts three times per pulse, your bar will be three beats long. Every three beats that are hooked into a pulse, become a bar.

MOTIF

In most cases, a motif is even smaller than a bar, because it is simply an idea based on RHYTHM or NOTES – two and three *notes* (or *rhythm*) strokes can easily make up a motif. The motif as an *idea*, is REPEATED, VARIED, DEVELOPED and CONTRASTED throughout the composition. You will study this principle¹⁰⁹ in later sections.

KEY SIGNATURES AND SCALES

You have studied majors scales in the keys of C, G, D, A, E, B, F and B=. You must try and revise the concept of *major scales* by learning to write them out on the staff.

¹⁰⁷ the use of melodies in such a manner that the one seems to respond to the previous

¹⁰⁸ graphical representation of a melodic movement

¹⁰⁹ RDVC, which will be explained in later chapters

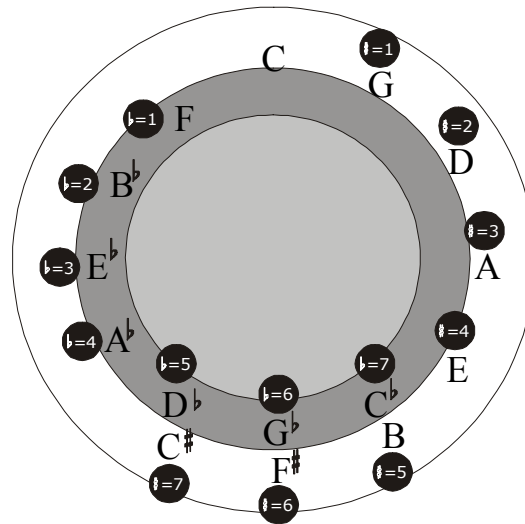


Figure 85: Cycle of Fifths

IMPROVING YOUR SIGHT READING AND NOTATION SKILLS

You may want to do the following in order to develop your songwriting skills. If you are not keen or writing songs using notation, you may skip this section.

- **Scale Notation** – write out your scales in minims on the staff. Use the given key sequences of the alphabet from the note you have chosen to make a scale with, e.g., for the scale of G, start on G and continue through A, B, C, D, E, F and end on G again.
- **Use of a Slur** – add a slur between the 3rd & 4th degrees, and the 7th & 8th degrees to mark your semitones. For example, in the scale of G, it would be between B & C, and F & G.
- **Chromatic Series** – use the 12-note series to convert the alphabet sequence into a major scale by adding, where necessary, sharps or flats to alter tones into semitones or vice versa. Do not change the letter names or alter the lower note (the first) of your current interval, e.g., in E - F, you would change F to F<, to convert the interval to a tone, and not change E to E<.

The remaining scales are demonstrated better in their cycle of fifths. You are therefore advised to construct major scales of E=, A=, D=, G= and C= in FLAT KEYS, F< and C< in SHARP KEYS.

Do not assume that the piano keyboard layout as implies that all 'black keys' represent *flats* or *sharps* – it might work perfectly at this stage in the key of C, but will get very confusing when you get into other keys and start to use where, suddenly, white keys will be flats or sharps (double-flats and double-sharps will complicate the piano layout even further), or even in a case where you have to use F= or B<, etc. The so called *black notes* are representative of *flats* and *sharps* only in the key of C, for all other keys, their roles change, they become *other* degrees, e.g., E= can become the *tonic*.

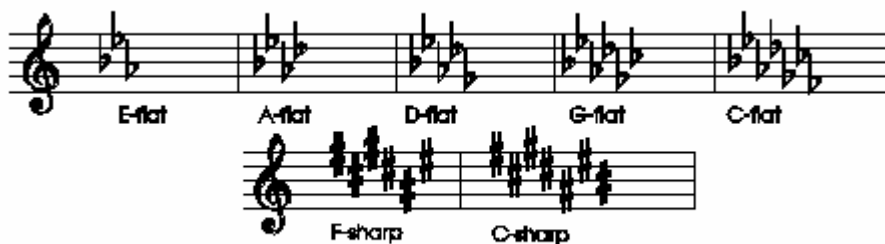


Figure 86: Common Key Signature

In the illustration, the scales of the remaining keys in the *cycle of fifths* are presented – before you look at our examples, see if you can construct them yourself without referring to the chart in Figure 90. Do not be afraid to use F-flat, C-flat, B-sharp or E-sharp; some people are convinced that these notes do not exist, unaware that in certain instances it will be compulsory to specifically use these notes. **E<, B<, C= and F= are legitimate notes in music – APEL Truth.**⁰⁹⁸

SCALES FOR THE REMAINING KEYS

The major scales for the keys of E=, A=, D=, G= and C= (in FLAT KEYS), F< and C< (in SHARP KEYS) had not yet been illustrated on the staff. If you have tried to construct them yourself, you can refer to Figure 90 to compare your results with mine.

The cycle of fifths was used to present the most commonly used keys, almost in the same order in which they appear in the *cycle*. This is the reason why we followed that sequence in illustrating the key signatures and their scales on staff notation for you.



Figure 87: Major Scales on the Staff

THE HARMONIC MINOR SCALE

There are two kinds of MINOR SCALES, namely the *harmonic* minor and the *melodic* minor; the melodic minor has two forms, one for the *ascending* order and the other for its *descending* order.

FOUNDATION OF THE MINOR SCALE

The MINOR SCALE is constructed from the LAH¹¹⁰ NOTE (the 6th degree of a MAJOR KEY (which in this case is called the RELATIVE MAJOR of the LAH SCALE) – exactly one and a half tones above the *starting note* or the LAH note.

- **Notes on the Relative Minor Concept** – in the key of C major, the LAH NOTE is A, or in any other key it is the 6th degree of the major scale, exactly *one half tone and a tone* below C – the DOH (or tonic) NOTE.
- + **6th Degree** – in the key of E= major, the LAH NOTE is C, the 6th degree of this scale, exactly one and a half tones below E= – the DOH NOTE. This is easy and convenient in that you can always work down to the LAH or the starting note of the proposed minor scale.

¹¹⁰ sixth degree of the major scale

- + **Starting Root** – where would you find the starting note, if you were required to write the harmonic minor scale of D, seeing that you have no LAH or DOH NOTE to work down or up to? You have to *work it out*.
- + **The Lah Assumption** – if the minor scale starts on LAH, then each note on which you decide to base a minor scale, can be regarded as a LAH note. What you have to do then is work up to a DOH from this presumed LAH, i.e., to a tone and half above it, (or better yet, a minor third above). Then write the major scale of that note.
- + **The Formula** – the HARMONIC MINOR SCALE is composed of the interval sequence of *Tone-Semitone-Tone-Tone-Semitone-Tone and Half-Semitone*. One can construct harmonic minor scales for minor key signature using a similar method as was used for major scales. I recommend the following method for constructing the harmonic minor scale of any key.
 - **Systematic Instructions** – in case you are getting confused, let us recap. We have looked at all the factors contributing to the construction of the minor scale, now let us build the *instruction set* in point form.
 - + **Find the Relative Major** – find the RELATIVE MAJOR of the given key by moving up to its minor third (or one and half tones above it). The note you will end up at is supposed to be both the KEY SIGNATURE and the FOUNDATION for the new harmonic minor scale.
 - + **Write the Relative Major Scale** – next, write out the MAJOR SCALE of the RELATIVE MAJOR, as established above. Once that is done, rewrite it again starting from its 6th degree or SUB-MEDIANT, not the usual TONIC.
 - + **Modify the 7th Degree** – the outcome is then the harmonic minor scale required *except* for the small detail of the interval between the 6th and 7th degree, which turned out as a tone (actually, a semitone lower than required). Therefore, the last thing you have to do to this new harmonic minor scale is to RAISE its 7th degree by a semitone.

With this newly found knowledge, try and construct the harmonic minor scales of C, G, D, A, E and B. Remember that if you use the *interval sequence* method, you must always make sure that your 'raised notes' are properly notated using '='s, '<'s or '>'s, in relation to the key signature inflections.



Figure 88: Minor Scales on the Staff

When you have constructed these *harmonic minor scales*, they should look like the illustrations given in our figure, if you have picked the same keys.

The illustration below demonstrates the relationship between MAJOR and MINOR keys as discussed earlier. It clarifies the concept of RELATIVE¹¹¹ MAJOR and RELATIVE MINOR in the context of key signatures.

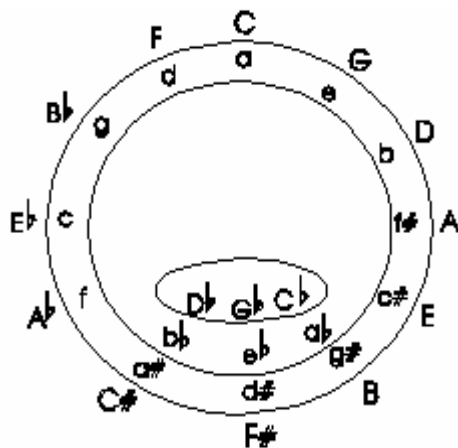


Figure 89: Cycle of 5ths and Relative Minors

SCALE DEGREES IN MINOR KEYS

What happens to the technical names such as TONIC (or DOMINANT, etc.) in a scale when the scale type changes? Why should we ask this question? When scales change from major to minor, the MEDIANT will be lowered by a semitone. But it is not the only note or degree affected by the change of scale modes, the SUB-MEDIANT also changes from its usual intervals with other scale degrees.

There is a tendency among students to assume that scale degrees will 'naturally' take new technical names – on the contrary, they retain the same names, although their interval sizes with their neighboring degrees may have changed.

Scale of C HARMONIC MINOR						
C	D	E=	F	G	A=	B
I	II	III	IV	V	VI	VII

Figure 90: Harmonic Minor in C

The Melodic Minor Scale

We mentioned that the melodic minor scale has two forms, viz., ascending and descending. The *direction of the melody* affects the notes used in the scale. The *ascending* form is used when the direction of the melody you are composing, or reading is moving upward. When it moves downward, the scale changes from *melodic minor ascending* to *melodic minor descending*. Melodies that change direction often make it difficult in that the reader or composer must remind himself to use the right scale order.

Revisiting the Harmonic and Melodic Concept

The *harmonic* scale is used for *harmony*; in other words, all the chord constructions will be based on the harmonic minor scale. The *melodic* minor scale is used for *melody*. All melodies will be written on the foundation and basis of the melodic minor scale. If a melody is based on the major scale, then this rule will not apply. The major scale can be used for both CHORDS (or HARMONY) and MELODY. It is only in minor keys where this differentiation of scale order and types takes effect as far as usage for chords and usage for melody is concerned.

¹¹¹ the scale most closely related to the selected scale, in which the 6th degree of the current scale is the tonic of the target scale

CONSTRUCTING THE MELODIC MINOR

THE FORMULA

Melodic Minor Formula										
ASCENDING:		T	S	T	T	T	T	S		
Example:	C	D	E=	F	G	A [>]	B [>]	C		
DESCENDING:		T	S	T	T	S	T	T		
Example:	C	D	E=	F	G	A=	B=	C		

Figure 91: Melodic Minor in C

The descending scale is written forwards in this figure, for ease of comparison. It is would typically be written backwards or downwards, as follows:

Descending Melodic Minor Scale								
DESCENDING:	C	B=	A=	G	F	E=	D	C
	HIGH							LOW

Figure 92: The Descending Form

COMPARISON WITH THE MAJOR SCALE

The *melodic minor* scale is the same scale as the *major scale* of its relative major. The relative major of C is E=.

The major scale of E=							
E=	F	G	A=	B=	C	D	E=

Figure 93: Major Scale of E

Melodic minor DESCENDING scale of C							
C	D	E=	F	G	A=	B=	C

Figure 94: Melodic Minor Descending of C

There is no difference between the two scales *except that they do not start at the same note*. The notes used are the same.

The major scale of E=							
E=	F	G	A=	B=	C	D	E=

Figure 95: Major Scale

Melodic minor ASCENDING scale of C							
C	D	E=	F	G	A [>]	B [>]	C

Figure 96: Relative Minor Ascending

POINTS TO REMEMBER

- **The 6th and 7th Degree** – the scale of E= in Figure 99, was rewritten so that it could start on the letter C. The new 'C scale' is the same as the original E= scale except that the 6th and 7th degrees were raised by a semitone each. The degrees were raised from FLAT to a NATURAL, indicated in this case by a natural sign (>). A natural cancels previous inflections acquired by a note.

- **Key Signature** – each minor scale uses the key signature of its 3rd degree, i.e., the minor scale of C uses the key signature of E=.

OCTAVE TRANSPOSITION

In your exercise of learning to write and read music, you must learn to rewrite music as often as possible to get used to the usage of intervals in music writing and reading. In this chapter you will learn to transpose a melody to an octave *above* or *below*, with or without key signature. This is the simplest kind of transposition because each note remains exactly the same except for its position on the staff – an octave higher. At an octave higher C becomes c, B1 becomes B and C2 becomes C1; the only change would be the position of the note on a line or space.

- **Positions of Notes** – notes on spaces occupy *lines* when moved to the next octave above or below and vice versa.
- **Inflections** – when using KEY SIGNATURES notes keep their inflections – <'s, ='s and >'s remain as they were. This is important to remember in order to keep the intervals of the MAJOR SCALE unchanged. Proper placement of inflections is necessary, otherwise the melody will be different and the key will change.



Figure 97: Transposition

The example given in the illustration shows a melody, rewritten an octave lower *without key signature*. This illustrates the manner in which transposition should be treated.

Remember that in advanced musical notation, the interval of transposition may be changed to any *simple* or *compound* interval of preference. This level of transposition borders on counterpoint¹¹², where the student's expertise and comprehension of music writing and analysis will be engaged.

YOU ARE READY TO BEGIN

I mentioned at the beginning that one of the things I had to do in order to be able to determine the things that needed attention in my singing, was to study music. As you would expect, *music theory* is an entire subject on its own, hence the length of the chapters.

If you have understood the background knowledge I have given you, *I will now address you as a student who understands the basic elements covered in this book*. If you do not understand any of the things I am referring to, please go back and revise the previous chapters until you understand everything.

¹¹² a musical form involving the simultaneous sound of two or more melodies

PRELIMINARIES¹¹³

After I completed writing this book, I read it over several times, and each time I read it, I realized that there were quite a number of things which I should have mentioned to the reader in advance.

The mentioning of such things will make the reader's life easier. The purpose of this short chapter, therefore, is to list for you, the things you may require in order to proceed with APEL uninterrupted and unhindered.

Some of them issues require you to spend a little money. If you do not have money, alternative suggestions are given. This book is not restricted to the rich and famous.

Of all the requirements, the most important should be the adjustment you make *in* and *on* yourself. You must be ready for APEL before you start. Each time I lectured, I told my students of the importance of *making a psychological adjustment*, they always assumed that I was being too sentimental over APEL, or just a little mellow dramatic.

A LONG HARD WALK

APEL is a long hard walk. For most normal people that is (like you and me), success will not come in a few weeks. But, the results will definitely be noticeable within the first few days. As I said somewhere else in this book, I have seen students who baffled me by making dramatic improvements in fourteen days. On the negative side, I have seen those who took as long as two years.

For both extremes, APEL will always be hard work, because it will change your life and make demands on you. **It is generally easier to destroy than to it is to build – APEL Truth.**⁰⁹⁹ For example, losing weight cannot be reduced to a period, it depends entirely on your metabolism and method used to loose weight.

Let us agree that APEL is hard; actually, so hard that if you have not made the mental adjustment to walk the nights practicing, you will soon find yourself dropping out. **The road ahead is uncomplicated, yet hard to walk – APEL Truth.**¹⁰⁰

YOU NEED SPACE¹¹⁴

I cannot over emphasize the *need for space*. You need a place where you can go crazy without being noticed. APEL is not for conservative people, it is not possible to succeed at APEL without letting go of your inhibitions.

You will soon realize that you have to *scream* at times, make *faces* and funny sounds. You do not want to do this in front of your children, husband, friends, and relatives. Take it from one who has been there.

¹¹³ what you need to know or have before you start with PURIFICATION and ENUNCIATION

¹¹⁴ a place where you can be alone and work on APEL

By *space* I mean simply, a place where you CANNOT BE HEARD, where you *feel* comfortable. There must be no interruptions. Earlier in the book, I told you how I found the bush to be perfect for this. I am not suggesting that you become a hermit and run off to the bush. Before you choose a place, make sure it is safe and that somebody knows about it. The place you choose must be accessible to you as and when you need it.

YOU NEED TIME¹¹⁵

You will also notice that some of the exercises must be done three times a week and some *daily* for a period of up to three months and longer. These exercises sometimes take as long as 30 minutes to an hour at a time.

Imagine doing an hour-long exercise daily for three months. It sounds like you have just enrolled for an MBA¹¹⁶ degree and you have to study day and night. For people who have responsibilities, this may sound impossible. You have to make a choice now: if you are not going to have time, *APEL will not work for you*.

I am an optimist: when I started going to gym, I wanted to do things my way, I soon found out that I needed to do things the way my instructors were telling me to, because there was a good reason for their methods.

If you want to succeed, you have to cease scrutinizing the methods, and do the work. **Sooner or later it is a choice between paying the price and losing the goods – APEL Truth.**¹⁰¹

For planning purposes, assume that you will need at least an hour everyday for three months. **If you want a good start, stop scrutinizing and do the work – APEL Truth.**¹⁰²

YOU NEED SUPPORT

Doing the program with a friend would be ideal. The only person you should involve in your training program should be another who is also doing the program. It has to be somebody who understands the dynamics of APEL.

If you have access to the Internet, you can access support resources online (<http://www.voicetraining.biz>), alternatively, you can email your questions to helpdesk@voicetraining.biz for a prompt personal response.

For those students who do not have the luxury of the Internet, you can send your questions, comments, and requests to the APEL postal address, viz., ICMA, P.O. Box 1749, Gallo Manor, 2052.

It is our mission to look after our students and *alumni*; members of our staff will not let any correspondence go *unnoticed*. We believe in APEL and we want to see it become a household name. We have a vision for a singing universe.

TOOLS

STATIONERY

A person does not have to be able to read and write in order to do the program, but it will be difficult without these skills. It would imply having a helper who can read for the student.

As you make progress, you will be required to log certain activities for later review. This obviously requires a pen or pencil. In order to make life easier, I have provided in this book, various forms and tables for the student's convenience. If you want to redraft some or all of them in a format that better suits you, you are welcome. If you have obtained this book without the forms, you can get them online from our website or write to ICMA¹¹⁷ and request the forms.

CD PLAYER

The program comes with audio material (either on a CD containing reference material for your convenience, or downloadable from the website). It was not possible to put the material on a cassette

¹¹⁵ a regular period in your diary when you can work on APEL

¹¹⁶ a master's degree in business administration

¹¹⁷ International Correspondence Music Academy

tape because one needs to locate the material with ease – which on a tape, would take for ever to seek, whilst on the CD, it is simply going to the required track number.

The other advantage of the CD is that for repeating exercises, most CD players allow one to repeat a track forever, allowing the student to audition and rehearse without having to rewind and locate the material each time.

Another point of interest for us was that it was cheaper to produce CD's than tapes, especially in that the CD's did not require labels to be printed.

Therefore, you will need to have a CD player. I would advice you to get one of those portable players, which you can take with you when you retreat to a secluded private area. Portable CD players are less cumbersome, and will make unplanned rehearsals easy for you. This is because portable units do not have the restriction that fixed CD players come with. It is also important to note that *Recordable CD's* (on which the audio is provided) are more vulnerable than normal audio CD's. Therefore, take appropriate care of the APEL CD's.

Do You Not Have a CD player?

If you do not have a CD player, you can try to follow the written version (of the audio material on the CD) in the index, using sol-fa. I did not have any audio reference material when I was learning to sing.

Honestly speaking, you gain more when you are not using the audio support material – you spend a considerable amount of time instilling the sol-fa into your subconscious, thereby improving your aural capabilities.

In the interest of time and the prevention of the effects of the high levels impatience and intolerance in the typical student, we wanted to make the process as easy as possible by including the audio material and exercise sheets.

TAPE RECORDER

While you cannot follow the APEL audio reference material using a cassette tape, you are still required to have one. It does not need to be a cassette tape, anything else that can record and store your audio will do.

People who have portable computers can use the *Microsoft Sound Recorder* program to capture snippets of their auditions.

The tape recorder does not have to be of high quality; anything that can play back well enough for you to judge your own performance will do. The difference between this and being in a classroom is that I (or a tutor) am not there to assist you; hence, you have to learn to do it yourself, *to be your own judge!*

Years ago one, of my very young relatives went to visit other relatives who spoke a completely different language from us. She had never spoken a word of that language before. In a matter of two weeks, the fluency and quality of the foreign language she displayed left me astonished and feeling somewhat less intelligent because I could never have mastered a language in two weeks.

Many years later I read that children have a *higher* aptitude for learning a new language than adults do. The point is, however, that no matter how little experience and music knowledge you have, by HEARING THE MUSIC OVER AND OVER, you will be amazed at the level of analytical expertise you will begin to display. This is because your mind will learn to subconsciously make sense of something if it hears it enough times.

MEDICAL CONSIDERATIONS

While no one has ever suffered adversely from APEL, we always remind ourselves that no matter how harmless APEL seems, we do not know the condition of your health and how vulnerable it is to vocal and mental strain

For that reason, *we insist that you consult a general practitioner* and inquire whether there are any activities related to singing, exercise and emotional pressure that you should avoid, before embarking on this journey.

LARYNGEAL PRECAUTIONS

You must take good care of your larynx; further guidelines to this effect are included elsewhere in the book.

A common mistake people make is *overdriving* their larynx. Use it sparingly: think of it as body tissue; it requires a lot of rest. Before a major singing event, make sure you have at least 48 hours' rest. During exercise and rehearsal, watch out for discomfort. Should you begin to experience any discomfort, see if water alleviates it. If it does, then proceed with caution. Should the water not solve the problem, your only other remedy will be rest. Do not proceed again until after 48 hours — muscle tissue requires at least 48 hours healing.

If rest does not clear up the discomfort, *immediately consult your doctor*. It might be a medical condition that requires professional attention. You cannot afford to have your larynx damaged: your speech and singing depends on it.

SPEECH THERAPY

Some people may find it necessary to consult a speech therapist. A speech therapist is a professional who is skilled in the diagnosis and treatment of ailments such as speech, language, and voice disorders.

A speech therapist cannot treat medical conditions; for that reason he or she works in conjunction with a neurologist¹¹⁸, an *otolaryngologist*¹¹⁹, a psychiatrist¹²⁰, a psychologist, a psychiatric social worker or a speech pathologist¹²¹.

There are various causes of speech disorders, some of which are disease, physical injury, or deformity. These are all are medical conditions only a physician or surgeon should treat.

OTHER MEDICAL PROBLEMS

Problems Related to Medical Conditions

I had a student who had a breathing problem — whenever she tried to sing, she would get dizzy. I do not know what the problem was because she was never comfortable talking about it, and she dropped out before we got around to the root of the problem. This could easily have been a medical condition of some sort. If it was given the proper attention, she could have completed her APEL studies.

Problems Related to Carelessness

I had another student whose voice was extremely vulnerable. She would experience a lot of pain after singing even a short phrase. In her case, it was the lack of proper handling of the larynx. The manner in which she sang, was excessively strenuous to her larynx. It is important to learn how to handle your larynx, both in song and in speech.

ON A SPIRITUAL NOTE

On a spiritual¹²² aspect, some of the readers may *not* be from a Christian background. APEL was designed for Christian students, but this will probably not be a problem. APEL will work for non-Christians as well as for Christians.

BIBLICAL REFERENCE

The material refers a lot to the Bible. I am a Christian and believe that my God is the beginning and the end: before Him and after Him there is nothing. Without Him there is nothing.

For this reason, I did not see a purpose for singing beyond the *God-context*. You sing either to God or to people — you sing either for God or against Him. Listen to Pop music; it is either Gospel or secular.

¹¹⁸ a medical specialist in the nervous system and the disorders affecting it

¹¹⁹ a specialist in the disorders of the ear or nose or throat

¹²⁰ a specialist in the branch of medicine dealing with the diagnosis and treatment of mental disorders

¹²¹ a doctor who specializes in medical diagnosis

¹²² based on Christianity

I am not saying all music must preach, but I am saying all music must acknowledge God, directly or indirectly; if it does not acknowledge God, *then it should never sing against God or what He stands for?*

An example: even though singing 'Happy Birthday'¹²³ is neither scriptural nor unscriptural, it is *good* and it reflects godly values.

I have used scripture references to that elaborate certain *principles of singing* in a godly context. I strongly suggest that you purchase a Bible and lookup every reference that we have included in this book. God is real.

If God does not exist, an equivalent who also has some expectations of you does – APEL Truth.¹⁰³ It is for you and me to find out what these expectations are, and meet them; otherwise, our purpose in life is misaligned with the Creator's purpose. **One way or another, we have a duty towards God, irrespective of what we choose to call Him – APEL Truth.**¹⁰⁴

SPIRITUAL POWER¹²⁴

Parts of the book advocate *increasing* your spiritual power – the power referred to here is *not* satanic. If this were a secular rock manual and I were non-Christian perhaps it would have been, but that is against everything I believe and stand for. However, whether or not you agree with my religious convictions or not, APEL is still as valid and relevant to you as it could otherwise ever be.

Do not spend your time focusing on the small things that you do not agree with me on, go through the program and retain your beliefs without allowing it to keep you from benefiting from my experience. Remember that in most cases people are so alike that the small differences become so unsettling. **The less different we are; the more conscious we become of our minor dissimilarities – APEL Truth.**¹⁰⁵

MENTOR

When you sit in a classroom, the teacher automatically becomes your mentor. However, through *distance* learning or self-study, your teacher *cannot* be your mentor. Therefore, you will need a guide or inspiration to work from and with until you can stand on your own feet.

CHOOSE A RENOWNED TALENTED SINGER

I started with *Jim Reeves* and *Jimmy Swaggart* as my mentors. When I outgrew their style, I *switched* to Elvis Presley because there was a depth of emotion in his voice that attracted me. Soon after that, I discovered *Lionel Richie's* flexible pop style. I became hungrier for expression in my singing and teamed up with *Luther Vandross's* earlier works.

It was not long before I realized that if I were going to be satisfied with my voice, I had to learn to express myself in my own way. I had to clean out of my voice, all those influences I picked up from Elvis, Lionel, Luther, Jim and others.

It is sometimes easier to adopt another person's style than to get rid of it. **Some clothes are easier to wear than to take off – APEL Truth.**¹⁰⁶ My advice is for students to be cautious when choosing a mentor or role model. Sometimes, many students pick the same mentor repeatedly and you end up with a thousand *Stevie Wonders* running around. Aligning yourself with a singer is the same as drinking of his spirit – a part of his spiritual makeup rubs off on you.

The Law of Association permits the transfer of a spiritual aroma to the follower – APEL Truth.¹⁰⁷ You must be careful of this reality. Watch your spirit; do not expose it to wolves and vultures. If you latch on to a corrupt singer as a model and inspiration, you might end up receiving *more* than just his style.

IDENTITY

On the other hand, if you start out without a definite and clear desire to have your own identity, you may end up doing yourself an injustice. I remember at one time, every one of my female students wanted to sound like Whitney Houston. **We must always allow our vocal signature to develop, lest the world be deprived of something new and unique – APEL Truth.**¹⁰⁸ Imagine if *Stevie Wonder, Aretha*

¹²³ popular song sung on birthday celebrations
¹²⁴ anointing

Franklin, Sting, Madonna, Brenda Fassie, Luther Vandross, James Ingram and Jeffrey Osborne had not allowed their own unique identity to develop – those that follow them in fear of becoming unique would have had nothing to chase after.

I remember how the *mimicry* among my students became so annoying that I would not look forward to my next class. The male students at one time had a thing about the *Winans*. Imagine what Whitney Houston or the *Winans* would sound like if they sang out of tune. That is what I was hearing day in and day out in class. **Never presume that resembling¹²⁵ somebody makes you equally competent – APEL Truth.**¹⁰⁹

I believe that this covers the basic requirements for APEL. Other matters are not preliminary and are therefore discussed in the book

¹²⁵ even if you sound like a carbon copy

MEANINGS OF FOREIGN TERMS¹²⁶

A

a tempo – (Italian) in time, resuming normal speed after a variation.
accelerando (accel.) – (Italian) gradually faster.
adagio – (Italian) slow, but generally not as slow as *largo*.
agitato – (Italian) agitated.
al segno – (Italian) as far as the sign.
alla – (Italian) to the, in the manner of.
alla marcia – (Italian) in the style of a march.
allargando – (Italian) broadening.
allegretto – (Italian) lively, but less so than *allegro*.
allegro – (Italian) quick tempo, lively.
anacrusis – an unstressed beat (usually the last or up-beat).
andante – (Italian) moderate tempo, going, moving.
andantino – (Italian) faster than *andante*, slightly modified *andante*.
animando – (Italian) becoming more lively.
animato – (Italian) animated, lively.
attaca – (Italian) go straight on, immediate move on to the next section.
ausdruck – (German) expressively.

B

belebt – (German) lively, animated.
ben – (Italian) well.
bewegt – (German) with movement, agitated.

C

cantabile – (Italian) 'singable,' in a singing fashion.
cantando – (Italian) singing.
capriccioso – (Italian) in a whimsical, fanciful style.
colla destra – (Italian) with the right.
colla sinistra – (Italian) with the left.
colla – (Italian) with the.
comodo – (Italian) convenient.
con brio – (Italian) with vigour.
con forza – (Italian) with force.
con spirito – (Italian) spirited.
con – (Italian) with.
con espressione – (Italian) with expression.
con moto – (Italian) with movement or motion.
con anima – (Italian) with soul, with feeling.
con grazia – (Italian) with grace.
crescendo (cresc.) – (Italian) growing, increasing in volume.

D

da capo al fine – (Italian) from the beginning to the word fine.
da capo (D.C.) – (Italian) from the beginning.

da capo dal segno – (Italian) from the beginning and then from the sign.
da capo al segno – (Italian) from the beginning to the sign.
dal segno – (Italian) from the sign.
decrescendo (decresc.) – (Italian) decreasing in loudness.
delicato – (Italian) delicate.
diminuendo (dim.) – (Italian) decreasing in loudness.
dolce – (Italian) sweet, soft.

E

empfindung – (German) emotion, feeling.
energico – (Italian) energetic.
espressivo – (Italian) expressive.

F

fermata – (Italian) pause, literally a stop.
fine – (Italian) the end.
forte (f) – (Italian) strong, loud.
forte-piano – (Italian) pianoforte, loud and then immediately soft.
fortissimo (ff) – (Italian) very loud.
forzando (fz) – (Italian) forcing (indicated by > above the note/s).
frisch – (German) vigorous.
fröhlich – (German) cheerful, joyful.

G

grave – (Italian, French) very slow, solemn.
grazioso – (Italian) graceful.

K

kräftig – (German) strong.

L

langsam – (German) slow.
langsamer – (German) from *langsam*, more so than *langsam*.
larghetto – (Italian) a little *largo*, slow but not as slow as *largo*.
largo – (Italian) playing to be slow, broad.
lebhaft – (German) lively, vivace.
legatissimo – (Italian) as smooth as possible.
legato – (Italian) bound, smooth, tied.
leggiero – (Italian) light
lento – (Italian) slowly or lent (French).
lustig – (German) cheerful.

¹²⁶ Although in this book we cannot cover the complete dictionary of foreign words used in music, we have included those that seem necessary for you to study APEL.

M

ma non troppo – (Italian) but not too much.
maestoso – (Italian) majestic.
mano sinistra – (Italian) left hand.
mano destra – (Italian) right hand.
marcato – (Italian) emphatic, accented.
marziale – (Italian) in a military style.
mässig – (German) at a moderate speed.
meno – (Italian) less.
mesto – (Italian) sad.
mezzo – (Italian) half.
mezzo forte (mf) – (Italian) half-loud, midway between loud and soft.
mezzo staccato – (Italian) half short or detached.
mezzo piano (mp) – (Italian) half-loud.
misterioso – (Italian) mysterious.
moderato – (Italian) moderate.
molto – (Italian) much.
morendo – (Italian) dying away.
mosso – (Italian) moved, moving fast.

N

non legato – (Italian) not bound or tied.

O

opus – (Italian) work.

P

pesante – (Italian) heavy.
pianissimo (pp) – (Italian) very soft.
piano (mp) – (Italian) soft.
più – (Italian) more.
poco – (Italian) little, slightly, gradually.
portato – (Italian) carrying on without breaking.
posthumous – (English) published after author's death.
prestissimo – (Italian) very fast.
presto – (Italian) faster (faster than allegro).
prima volta – (Italian) first time.

R

rallentando (rall.) – (Italian) slowing down.
rasch – (German) quick.
rinforzando – (Italian) reinforcing, *rinf.*, *rfz*, *rf*.
rinforzato – (Italian) reinforcing, *rinf.*, *rfz*, *rf*.
ritardando (rit.) – (Italian) slowing down, holding back.
ritenuto (rit.) – (Italian) held back, slowing down (immediate slowing).
ruhig – (German) peaceful.

S

scherzando – (Italian) playful, joking.
schnell – (German) fast.
seconda volta – (Italian) second time.
semplice – (Italian) simple.
sempre – (Italian) always.
senza – (Italian) without.
sforzando – (Italian) accented, forced, *sfz*, *sf*.
sforzato piano – (Italian) forced but quite.
sforzato – (Italian) accented, forced, *sfz*, *sf*.
smorzando – (Italian) dying away in tone and speed, *smorz*.
staccatissimo – (Italian) very short.
staccato – (Italian) detached (dots above the notes to be detached).
stringendo – (Italian) gradually getting faster.
subito – (Italian) suddenly, sub.

T

tempo comodo – (Italian) at a moderate speed
tempo di menuetto – (Italian) at the speed of a minute.
tempo primo – (Italian) at the original pace.
tenuto – (Italian) held.
traurig – (German) sad.

V

vivace – (Italian) lively.

volti subito – (Italian) turn (the page) at once.

Z

zart – (German) tender, delicate.

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