
Melody Madness
Songwriter's Ultimate Guide to the Craft of Great Melody Writing
by Kevin Thomas

Legal Notice

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PART 1: INTRODUCTION

Melodies, what are they, and how are they created? What makes the difference between an average melody that is easily forgotten and great melody that everyone will remember? A really good melody will remain playing in the heads of your listeners for days to come, after they hear it just once. Why are some melodies infectiously catchy like this, while others are monotonous and boring? And why is the melody the part of the song that people tend to remember the most? A melody will define your song more than the lyric, chords, rhythm, or any other component of music.

Learning to master the art of melody writing is probably the most important task for any aspiring songwriter. However, these skills are often shrouded in mystery. As essential as melody writing is to both songwriting and music composition, it is very surprising that in-depth information on this topic is not only elusive for the average songwriter, but is rarely taught even at the most prestigious music colleges and conservatories. This book was designed to fill that need.

In the following pages, I will be sharing with you dozens of the best-kept insider secrets about writing great melodies for your songs. These are the actual techniques that hit songwriters use to turn common melodic phrases into gigantic hooks that people will sing and remember for years. Here you will learn the tools to shift and shape your own creative musical ideas, like a child in a sandbox, building melodies into magnificent musical sandcastles. Melody writing is an art, but the exciting thing is that there are techniques to this art, and they can be taught and learned. Having these tools in your songwriter's tool-belt will save you years of trial and error trying to figure out how to construct memorable melodies on your own, and eliminate the dangers of throwing away perfectly good ones due to the common problem of not knowing how to develop them. With the knowledge in this book you will never run out of new ways to construct amazing melodies for your songs.

1. What is a Melody?

A melody is a musical phrase that contains two main components: Pitch and Rhythm. Melodies are basically pitches placed rhythmically in time. One could look at any melody as a graph, with pitch being the vertical component, and rhythm being the horizontal component. Additional components that add character and flavor to melodies include Articulation (how notes of a melody are accented), and Dynamics (changes in loudness or softness). Timbre, which is the tonal quality of different instruments or voices, will also effect the way a melody sounds. But pitch and rhythm are really the foundation. Moreover, it is what you do with the pitches and rhythms that will make the difference between your phrase sounding like a melody, or sounding like some other type of background musical idea.

For instance, did you ever hear a really fast guitar solo that went on without a pause for several minutes straight? Technical skills like that are sometimes pretty amazing to hear, but those solos are not melodies. And listeners who don't find those type of musical acrobatics very exciting usually just tune them out and stop listening. On the other hand, did you ever hear a blues guitarist play a few notes, then pause, then play a few more that seemed to be connected to the first ones, almost like an answer to a question? Those are melodies. A melody is not a blazing stream of fast notes that never seem to end. It is a short, often simple, memorable phrase, which has a pause after it. Melodies consist of phrases just like sentences, and good melodies are constructed and organized with a syntax very similar to that found in spoken language.

The human brain has evolved to understand and process language very effectively, but when we hear sounds that are too dissimilar to language, they hold much less meaning for us. Our brains can make sense of, and remember sounds best when they are formulated into phrases just like speech. When people speak, they need to pause between phrases to take a breath, and they can only fit in a limited amount of words per phrase. When writing melodies, if you never pause between phrases they become an incomprehensible blur. And if you pile a large number of pitches into one phrase, it becomes difficult to clearly understand any of the individual notes. Also, if you take a lot of large leaps in pitch, the phrase will sound too disjointed for the brain to recognize it as a melodic pattern. A big leap in pitch is fine within a melody, but having one after the other will usually make a melody seem incomprehensible. In memorable melodies, most notes will tend to be closer together in pitch, which more accurately represents the capabilities of the human voice. Lastly, spanning a very wide range in pitch with a musical phrase can make it sound less melodic, because that is not a feat that most listeners can duplicate with their voices, and as a result they will often not replicate the melody in their heads either. These types of phrases are far removed from the sounds that the human voice normally produces, and will not sound like melodies.

Here are four general rules that make musical phrases sound like melodies:

- Short Phrases
- Few notes (3-12 more or less)
- Limited number of leaps in pitch (1 or 2 at most)
- Stay within a certain pitch range (Usually within 1 ½ Octaves)

So to summarize, a memorable melody will tend to be a musical phrase that is constructed in a way that a human voice can easily sing, and the human brain can easily remember. Within that context there is still infinite room to put your own creative fingerprint on your unique melodies.

2. Getting Started Writing

How is a melody created? There are a variety of ways to construct melodies. The following are examples of the most common methods used, and some ideas to get you started writing. Experiment with them and start creating melodies right away; write down or record the melodies that you like. As we move along in this book, we will go into more detail about the specifics of how to create great melodies, and develop them into memorable hooks, song sections, and entire songs. Start creating and saving them now so you can apply the techniques taught in this book to your melodies, and eventually build them into whole songs.

Solo Melodies: When singing by yourself, there are several things that you can do to create and shape melodies. You can go up or down in pitch, you can hold some notes out longer than others, you can go up or down in loudness, and you can articulate some notes differently than others. Of course there are many intricate ways to manipulate each of these parameters, but these are the four main components of melody that you can begin experimenting with: pitch, rhythm, articulation, and dynamics (loudness). Playing the notes of your melody on an instrument while you sing along can help you to keep all of the pitches in-tune. This is also a good way to stay within the pitches of a certain scale. Melodies are all created from scales, which is a topic we will be covering in depth in a later section.

Chord Progression: When chords are played on an instrument such as a guitar or piano, it is often easier to create melodies, because the pitches of the chords will act as a framework for your notes. You will no longer have every possible pitch available to you, a freedom that can sometimes create far too many options to provide adequate structure for your melodies. When chords are added, you will not only be following the structure of a particular scale, which the chords will reinforce, but you will find that the pitches of the scale will sound different depending on which chord you are on. The notes of your melodies will sound more consonant when centered around the pitches of the chords, and as the chords change they will help guide your melodic choices. Practice playing different chords or chord progressions, and singing or playing melodies along with them. Later in this book we will discuss how to choose chords and scales that are all from the same key, so that they work together in synchrony, and how to deviate from the key melodically or harmonically to add variety.

Rhythm of the Music: When providing a groove or steady beat with an instrument or device, melodies will have a rhythmic framework to fit into. This can be done with a purely rhythmic instrument, such as a drum set, or with a recorded drum loop or a drum machine. With a rhythmic background, melodies can more accurately find places to fit into in time. Your melody will now have a tempo (slow or fast speed) to follow. Within that tempo, you can sing fast sixteenth notes, slow whole notes, or any other note durations you choose. You can choose to place notes on the beats (straight), or in-between them (syncopated). You can decide if the rhythm of the music will be

subdivided into groups of three, four, or another less common time-feel. The groove will now be influencing your melody, but your melody won't have to strictly follow the groove. You can choose to sing against the groove, singing a fast melody on a slow groove, or a syncopated melody against a very straight rhythmic feel. Once the structure of rhythm is in place there will be many new parameters available for experimentation.

Rhythm and Harmony: Harmony is a musical term that is synonymous with chords. Playing your chords or chord-progressions in time, with a steady groove, can create both a rhythmic and harmonic framework for your melodies. Playing the chords along with a drumbeat can help lock in the groove even more. This can be further enhanced by adding a bass-line and other instruments to the rhythm section, either by sequencing the groove with a keyboard or computer program, or by practicing with live musicians. When working with live musicians however, developing your melodies from scratch in a group environment may not be the most effective use of your writing time, but there are many bands that create virtually all of their songs in just such a way. Whichever way you do it, when writing with both a rhythmic and harmonic background, even a slight shift in the groove can completely change your choices of rhythmic phrasing, and changing the chords can instantly create very different pitch possibilities. These variations within the music background can inspire melodic ideas that you would not have thought of while singing solo, and they can also give you a sense of how your melodies will ultimately sound within a larger musical context.

Lyrics: For many people, lyrics are the primary basis of melody writing, and the words are always created first. Words can be divided into syllables, which then become the basis for the rhythm of your melodies. There are many ways to set the same lyric phrase to music, but the natural accents of spoken words will often suggest how a melody could be initially formed. Words have an inherent rhythm of strong and weak accents within their syllables. These accents will either partially dictate a rhythm for your melody, or, if you are fitting words into music that has already been written, the accents will help you find a home within the rhythmic framework that is already there. Words also have meaning. There are many ways to use pitch and rhythm to bring out the meaning of lyrics. Methods of both aligning the natural accents of words with the strong and weak beats of music, and of how to use melodic techniques to enhance the meaning of the lyric, will be covered in greater detail in subsequent sections.

Instruments: Creating melodies with an instrument can inspire some musical ideas you would not normally have thought of while using your voice. The various timbres of different instruments can have a strong influence on the type of melody that you write. Playing a melody on a violin will sound very different from singing it, or from playing the same melody on a trumpet, harmonica, or xylophone. Because most people do not have dozens of different instruments lying around, a good way to have access to hundreds of different instrument sounds is to use the sound library from a keyboard. When writing melodies on instruments, be sure to superimpose the limitations of the human voice onto

your instrument. The closer your phrases sound to something that people could actually sing, the more melodic they will be.

Existing Melodies: When you hear a melody that another has written, it will often trigger your inner melody-maker. You might begin singing along with the song, but then find yourself making up your own improvised melodies to the music. If this has never happened to you before, making up new melodies to various recorded songs can be a really good exercise. You can use this as a way to practice melody writing, and you can then even apply some of the improvised melodies to your own music. This is a great way to jump-start the creative process with melody writing.

Style: Whether you are writing in the style of Funk, Rock, Country, Hip-Hop, R&B, or some other genre of music, the style will influence your melodies significantly. Try experimenting with different styles, and listen to what melodies emerge. You can do this either by creating solo melodies that are reminiscent of a certain style of music, or by playing a style of music on an instrument, or from a recording, and adding your own melodies to fit the style. Then take the melodies that you created within one genre, and apply them to a completely different style of music. You could superimpose a melody as-is onto the new style, but you will often find that your melody will want to change to fit the style more appropriately. Try it both ways; this will broaden your sense of melodic possibilities.

> Note on Existing Melodies and Style: Singing new melodies to recordings of songs written by others is a totally valid method for generating your own creative ideas. We live in a very interconnected world, and nothing here is ever created in a total vacuum. After writing some new melodies in this manner, you can take the ones that you like and set them to your own music. You will often find that the melodies change considerably as you combine them with different chords and rhythms. Most of the time, the final result will have very little left in common with the initial music that started the process. It will be a melody that is completely unique to you.

Experiences: Sometimes a visual experience, like a sunset over a dark green forest, or an intense emotion, like an angry feeling after watching a controversial news show, can inspire good melodies. Here we are making larger artistic translations, by using the events of life and transforming them into music. When watching a Musical, it becomes apparent very quickly that the songwriter most likely used this approach for the majority of his or her initial melodic inspirations. Every song in a Musical must accurately represent something that takes place within the drama. But the same technique can be applied very effectively to other styles of music that are not written to follow some type of theatrical drama. When using this approach, you may find that lyrics, as well as melodies, begin to flow through your creative channels, and intertwine simultaneously to depict the experiences. Allowing the moments of your day to influence your melody writing can truly help you to tap into the deeper music of life.

Abstract Concepts and Symbolism: World peace, the meaning of the number 5, the bondage of desire, and alien thought vibrations, are all abstract concepts. They are not tangible things that can be precisely visualized. They do, however, conjure up images, just as experiences do. Creating a melody that represents an abstract concept is often an intriguing challenge. This process can be easily enhanced by manipulating all of the various parameters of melody writing that we will be discussing in later sections. Symbolism is often incorporated into melodies that represent abstract concepts. For example, a melody that is designed to depict the degeneration of the human spirit could descend in pitch, slow down rhythmically, and end on an unstable scale tone. Composers have even used non-musical techniques such as numerology to encrypt certain names or words into the letters of the pitches that they use for compositions. Symbolism can provide multiple layers of depth within the music that you write, create a sense of mystery, and enhance the meaning of a song.

* * *

Any of the techniques listed above can help you begin the melody writing process. If you make a daily exercise out of applying these strategies, you will quickly begin to open up doors to realms of musical possibility that you didn't even know existed. It is a good idea to vary these approaches, rather than just sticking with the one you like the best. This will provide for maximum flexing of your melody-making muscles. At first, become familiar with each method, and practice them all individually. Then experiment with combining different approaches. As your practice of creative writing grows, you will begin to find yourself spontaneously generating new melodies in your head throughout the day. This is a phenomenon known as getting in touch with your inner-writer. It is an essential skill for songwriters, and it is often a magical creative experience.

PART 2: FUNDAMENTALS

Creating great melodies will be the topic of this entire book. But before we begin developing your melodic ideas into gigantic hooks that will turn your songs into unforgettable hits, we need to cover some basics. The next five sections will provide an in-depth foundation in the components of music from which all melodies are essentially derived. If you already understand much of this information, you may still find that the following explanation fills in some gaps in your education, and puts many concepts into an entirely new perspective. It was written for both the beginner and advanced student alike. A firm grasp of these concepts will provide a solid foundation for all advanced topics throughout your entire music career, so learning this now will be time well spent. As you go through Part 2, continue with your practice of generating melodic ideas so that we can work with them in Parts 3-6.

3. READING BASICS

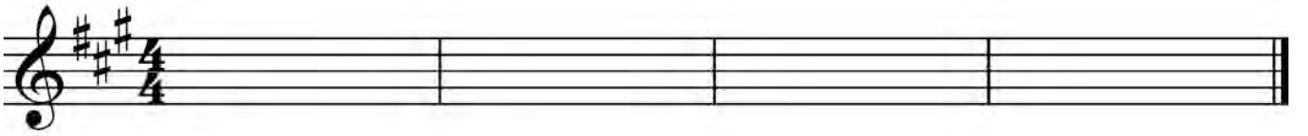
This section will quickly cover all of the basics of how to read standard music notation. You don't need to spend years becoming a great music reader to benefit from this knowledge. The information in these next few pages will provide sufficient details for you to not only completely comprehend any of the music notation examples within this book, but also will allow you to easily make sense of the vast amount of written sheet music that is available in music books and online. Learning to read music well is a very useful skill to acquire, and it does require time and effort to learn well, but simply knowing the basics can open up entire new worlds of information for you. If you already know how to read music you can skip this section. If you do not, these next few pages will make the foreign language of music notation seem instantly comprehensible, like walking through an exotic country and suddenly, as if by magic, being able to understand a strange new language. The pages that previously looked like mathematical gibberish will now instantly come alive with new meaning. So let's give it a go!

The Basics

The **Staff** is the group of 5 horizontal lines on which musical notes are arranged. It is divided into **Measures**, also referred to as **Bars**, by vertical **Bar-Lines**. **Double Bar-Lines** will indicate the end of a section of music, and **Thick Black Double Bar-Lines** indicate the end of a song or composition.

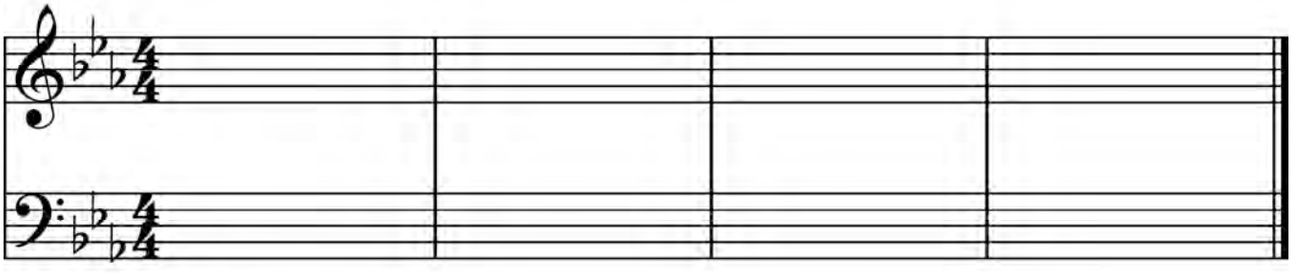
Music Staff

Ex: 3-1 Music Staff



The **Grand Staff** is used for musical arrangements or instruments that span an enormous pitch range from low to high, such as a choir arrangement, or music written for the piano.

Ex: 3-2 Grand Staff



The **Clef** is the symbol at the very beginning of each 5-line staff. There are several types of clefs, some of which are only used by a few instruments that have a unique pitch range. There are two clefs, however, that are used universally by the majority of musical instruments. They are the **Treble Clef,** and the **Bass Clef**.

The **Treble Clef** is the symbol located at the beginning of the top 5-line staff on the Grand Staff. It is also called the **G Clef** because the clef symbol circles around the second line from the bottom on which G notes can be placed. This clef is used for the majority of common instruments.

The **Bass Clef** is the symbol located at the beginning of the bottom 5-line staff on the Grand Staff. It is also called the **F Clef** because the two dots in front of the clef symbol surround the line on which F notes can be placed. This clef is used for lower pitched instruments such as the bass, tuba, and trombone.

For the purpose of the melody writing examples in this book we will be only using the Treble Clef.

The **Key Signature** is the array of sharps signs (#) or flat signs (b) located immediately after the Clef. It indicates the key of the song and the primary scale that will be utilized. This will be explained in detail in the section on scales and keys.

The **Time Signature** consists of two numbers arranged one on top of the other, like a mathematical fraction. It is located immediately after the Key Signature. This will indicate the time-feel of the music, and the number of beats that occur in each measure. It will be explained in-depth in the section on rhythm. 4/4-time is also referred to as **Common Time,** due to the fact that this time-feel has become so commonly used. It is for this reason that sometimes a big letter C will replace a 4/4 time signature.

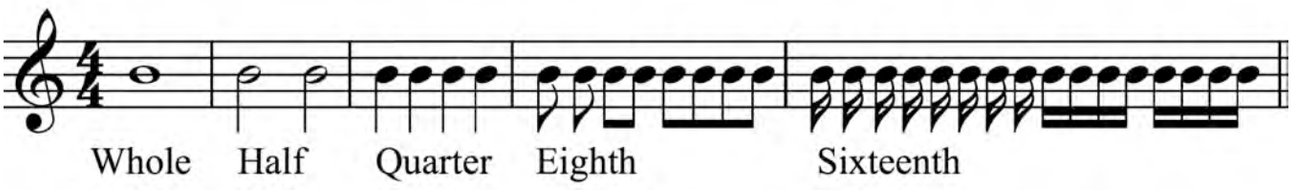
Reading Rhythms

Musical sounds are represented on the staff (plural is staves) as dots placed on either the lines or spaces. These are referred to as notes. The type of dot indicates the duration of the note, or how long the note will last in time. In 4/4-time, which is the most common time signature used in popular music, each measure of music will contain 4 beats. Below is a description of the duration of all the basic musical notes that can occur within a measure.

Basic Note Durations:

Whole Note	**4 beats long**	**1 per measure**
Half Note	**2 beats long**	**2 per measure**
Quarter Note	**1 beat long**	**4 per measure**
Eighth Note	**½ beat long**	**8 per measure**
Sixteenth Note	**¼ beat long**	**16 per measure**

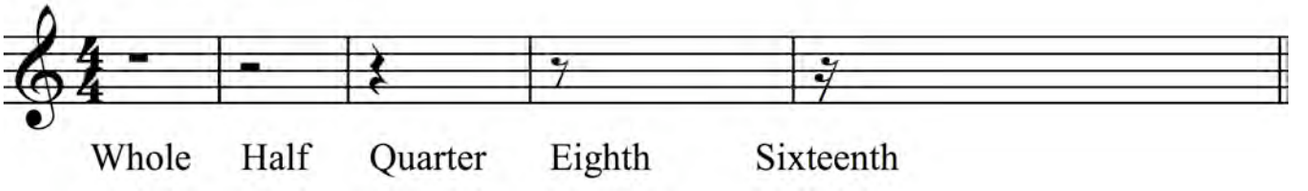
Ex: 3-3



- **Whole Notes** consist of open dots.
- **Half Notes** consist of open dots with **Stems**
- **Quarter Notes** consist of closed dots with **Stems**
- **Eighth Notes** consist of closed dots, each with a **Stem** and a **Flag** (even numbers of eighth notes can be grouped together with a **Beam** instead of each having individual flags)
- **Sixteenth Notes** consist of closed dots, each with a **Stem** and a **2 Flags** (even numbers of sixteenth notes can be grouped together with a **Double-Beam** instead of each having individual flags)

Rests: Each type of note will have a corresponding type of Rest.

Ex: 3-4



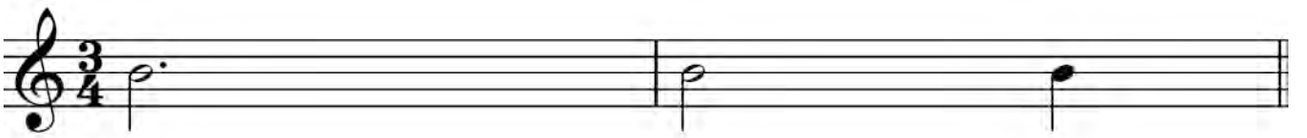
All the beats in a measure will be represented by either Notes or Rests, and for each measure, the total value of the combined notes and rest will always equal the value designated in the time signature. (Note: the example above has only one rest per measure for demonstration purposes only. Normally each measure would need to be filled with notes or rests that equal the four beats in the time signature)

Dotted Notes and Rests

Adding a dot after any note or rest will increase its value by one half. Notice in the example below that the time signature indicates 3/4-time, meaning that there will be 3

beats per measure. A half note is 2 beats in duration, but if we add a dot to it, it is understood that it will now be 3 beats in duration (one half longer than its original value). This fills up the first measure in the example below, and in the second measure we have an un-dotted half note and a quarter note, which together also equals 3 beats.

Ex: 3-5



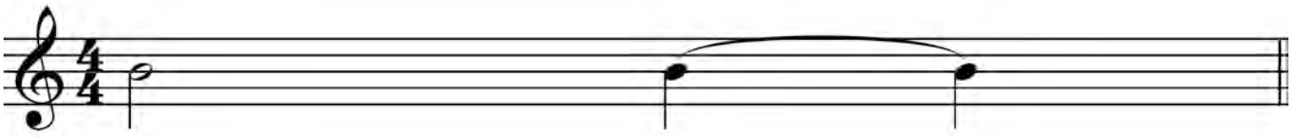
Dots can just as easily be added to rests, which will increase their value by one half.

Ties and Invisible Bar Lines

A **Tie** is a crescent shaped line that connects together two notes that are on the same line of space (indicated that they have the same pitch). When two notes are tied together, the first note is held out for the duration of both, and the second one is not articulated. They become like one longer note.

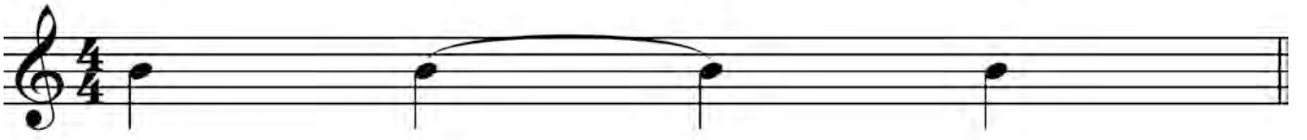
In the example below, the two quarter notes that are tied together will function just like a half note, and would normally be replaced by a half note.

Ex: 3-6



In the next example, the second two quarter-notes function just like a half note, but would NOT normally be replaced by a half note. This is due to an **Invisible Bar-Line**, which is commonly utilized to evenly divide measures in half as a way to make reading and counting beats easier for performers. When there are four beats in a measure, notes that are held out across beats two and three are commonly divided into two notes, which are then tied together, as in the example below.

Ex: 3-7



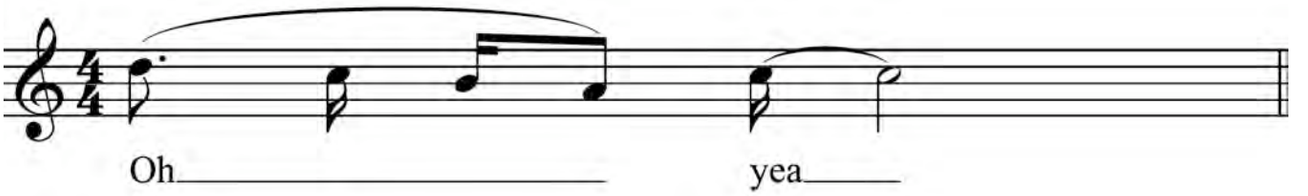
In the next example, the tie connects notes of two different measures together. This is a very common use of ties.

Ex: 3-8

Slurs

A **Slur** is a crescent shaped line that connects together notes positioned on different lines or spaces of the staff (indicating that they are of different pitches). Although slurs and ties look exactly the same, slurs are not used for connecting pitch duration, but are used instead to indicate that the notes are to be performed as a single unbroken phrase, with each note flowing smoothly into the next without strong articulation. The musical term for this type of phrasing is called Legato. On a guitar this would often also include using Hammer-Ons, Pull–Offs, or Slides, rather than picking each note. Vocally, it is often used for words that traverse more than one pitch, as in the example below.

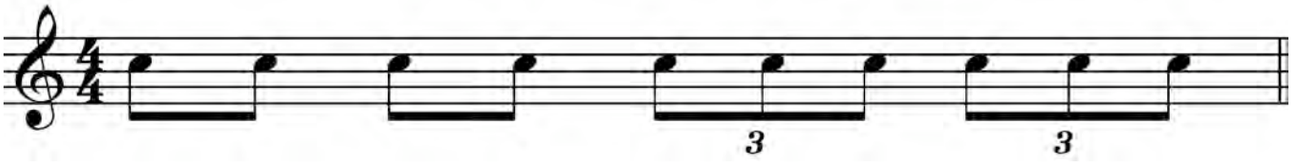
Ex: 3-9



Triplets

Triplets indicate the substitution of three notes instead of two within the same amount of beats. There will normally be a numeral 3 written above any group of triplets. In the example below beats one and two each contain two eighth notes, which are counted 1-and-2-and, but beats three and four replace the eighth notes with eighth note triplets, which are counted 3-and-a-4-and-a. The notes for the entire measure are counted 1-and-2-and-3-and-a-4-and-a.

Ex: 3-10

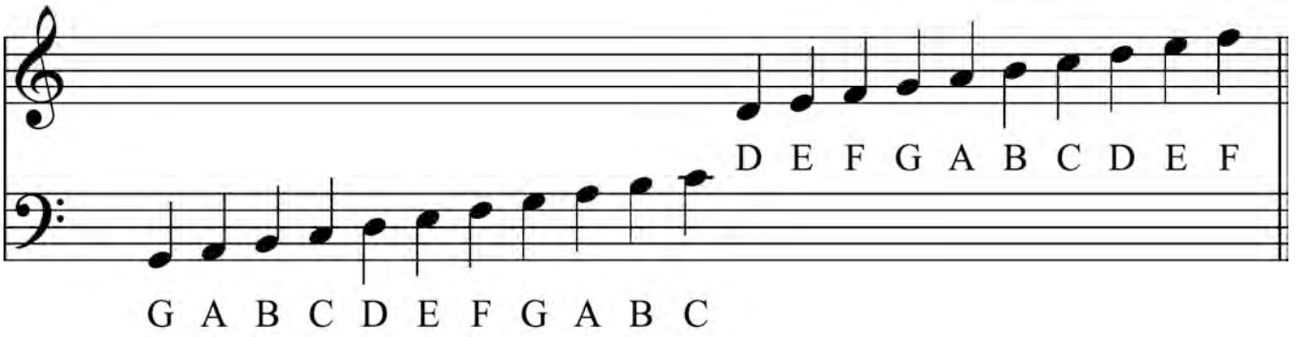


Reading Pitches

The Lines and Spaces on the staff that a note is placed on will determine its. The lower the pitch is on the staff, the lower it will sound, and vice versa. Seven letters of the

alphabet, A through G, are used to indicate pitches, and once all seven have been used they will repeat in the next octave higher or lower (This will be explained more fully in the chapter on scales and keys). Below is a grand staff with notes placed on every line and space, along with the corresponding letter names for each one.

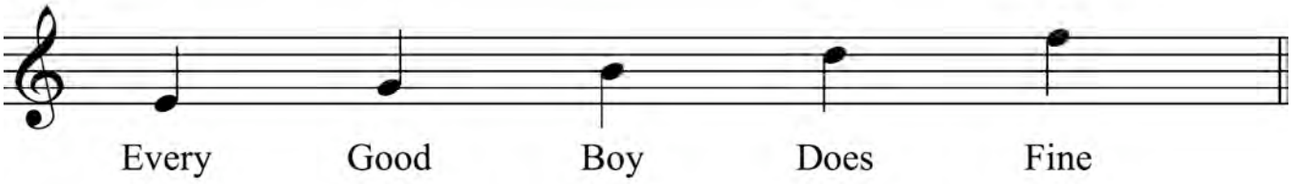
Ex: 3-11



Note: notice how the stems change direction in the middle of each staff. This convention is employed to keep the symbols centered on the staff.

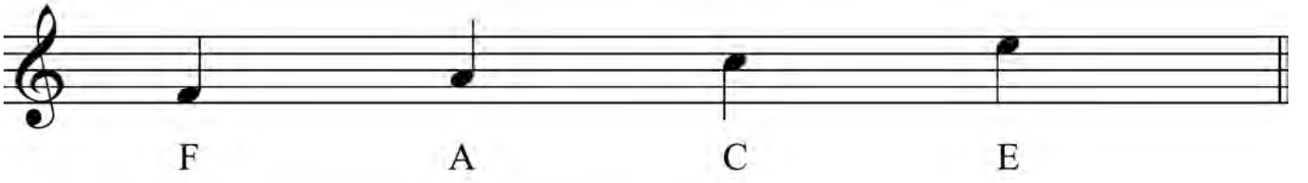
Acronyms are commonly used to help music students memorize the pitches on each staff. On the Treble Staff, the pitches on the Lines can be remembered using the acronym Every Good Boy Does Fine, which corresponds to the letters E-G-B-D-F.

Ex: 3-12 Pitches on the Lines of the Treble Staff



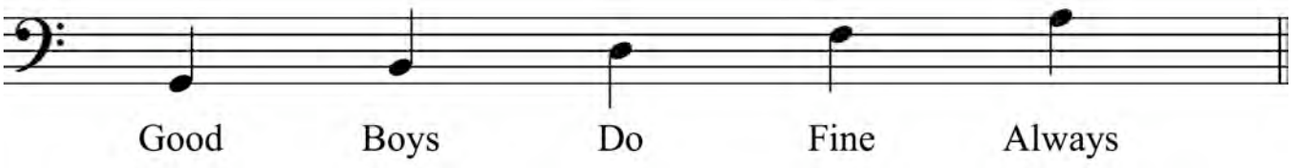
For the Spaces on the Treble Staff the word FACE can be used to help memorize the pitches F-A-C-E.

Ex: 3-13 Pitches on the Spaces of the Treble Staff



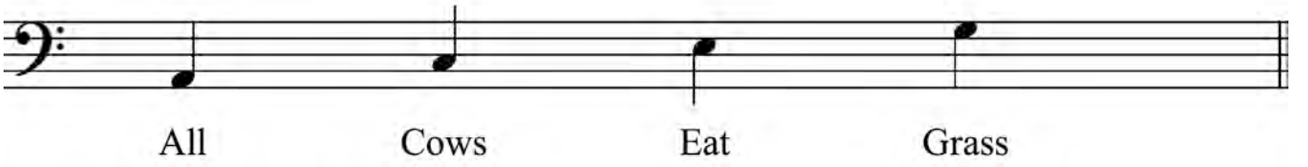
For the Lines on the Bass Staff the acronym Good Boys Do Fine Always can be used to memorize the pitches G-B-D-F-A.

Ex: 3-14 Pitches on the Lines of the Bass Staff



For the Spaces on the Bass Staff the acronym All Cows Eat Grass can be used to memorize the pitches A-C-E-G.

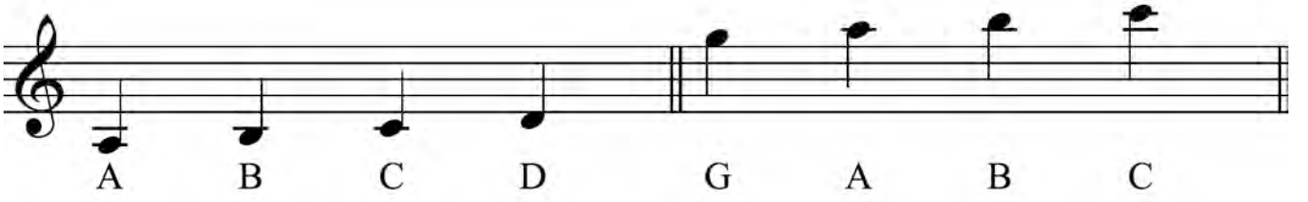
Ex: 3-15 Pitches on the Lines of the Bass Staff



Ledger Lines

Ledger Lines will occur for notes that are placed either above or below the staff. In the first measure below there is an example of notes that are placed on ledger lines below the staff, and in the second measure notes occur on ledger lines above the staff. If we were using a Grand Staff, the notes in measure one would be placed on the Bass Staff, rather than on ledger lines.

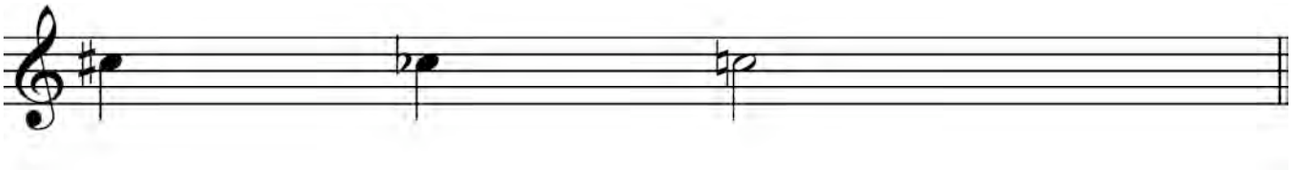
Ex: 3-16



Sharps and Flats

Sharp symbols (#), which look like a number sign, will raise a pitch by a half-step, and Flat symbols (b), which look like a lower case letter b, will lower a pitch by a half-step. (Half-steps will be covered in the chapter on scales and keys). Sharps and Flats are referred to as Accidentals. Natural signs return a pitch to its original value. These symbols are place just prior to the note that appears on the staff. Any accidental that occurs in a measure will affect all notes of the same pitch within the same octave for the duration of that measure only. To return a pitch with that is affected by an accidental to its original value, a Natural sign is used. The example below notates a C sharp, C flat, and then a C natural.

Ex: 3-17



Key Signatures indicate that certain pitches will have accidentals in all octaves that the pitch might occur, and for the duration of the entire piece of music, not merely for a single measure. In such cases, the accidental symbols will not be used for the individual notes, because the key signature implies their existence at the beginning of the piece. Natural signs can still be used to return any such individual pitches to their natural pitch.

* * *

This chapter was not intended to make you a great music reader; that usually takes years of practice. It was merely meant to supply you with a quick reference that should enable you make sense of any examples of music notation examples in this book, or from other published sources. However, learning or reviewing the basics above can take you quite a long way into fascinating land.

4. RHYTHM

Melodies are composed of pitches and rhythms. Where pitch has to do with how high or low we perceive a note to be, rhythm has to do with the durations of notes in time, and the space (rests) in between them. This section will cover the basics related to the rhythmic component of melody.

Pulse, Tempo, and Meter

To understand rhythm, we must first understand how musical time is created. Within time, music is measured by a steady pulse (beat). That steady pulse can be of various different speeds. Tempo is the term used to indicate the speed of the pulse, which is how fast or slow the music moves. By applying regularly recurring accents to a steady pulse set at any tempo, meter is created. The specific type of meter, such as 3/4 or 4/4 time, is defined by the number of pulses between the recurring accents. Meter has a grouping effect on the steady pulse. Once the steady pulse has been subdivided with accents into meter, a hierarchy of strong and weak beats will naturally emerge.

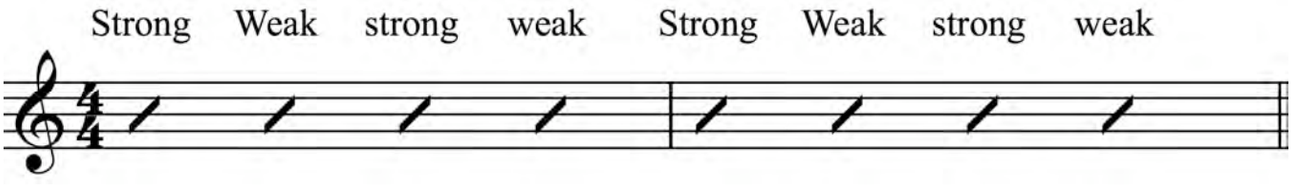
The first beat of a metric group will always have a strong accent, indicating the beginning of the group. If our meter indicates groups of two beats, the first beat will have a strong accent, and the second one will be weak. If it indicates recurring groups of three beats, the accents will be strong-weak-weak. And if it is a grouping of four beats, the accents will normally be Strong-Weak-strong-weak, where the first Strong beat, with a capital S will be stronger than the second strong beat, with a lower case s, and likewise with the weak beats. Groups of six beats are usually felt as Strong-Weak-Weak-strong-weak-weak, although the strength of the weak beats can vary here. Metric groups greater than four are normally subdivided into smaller groups. For example, groups of six are usually felt as two groups of three, and counted 1-and-a-2-and-a, as opposed to counting them 1-2-3-4-5-6. All metric groupings, no mater how complex, are combinations of smaller groups of 2 and 3.

When we get into groupings of five, seven, and other less common meters, there is often more than one option for where to place the accents. For instance, within groups of five the meter could be subdivided into groups of 2 and 3, and accented Strong-Weak-strong-weak-weak, or into groups of 3 and 2, and accented Strong-Weak-Weak-strong-weak. In music of many other cultures, these uncommon Meters are often the standard, and rhythmic complexity takes precedence over the type of Harmonic complexity that we have in our culture with our system of chords. This becomes very apparent in the indigenous music of African tribal cultures, where grouping twelve beats into 5 and 7 is common. They would never consider dividing the beats into 6 and 6 as we might, it would be completely bereft of rhythmic interest within their style of music.

Time Signatures

A time signature looks very similar to a mathematical fraction. It is placed at the beginning of a music staff to indicate the meter of the music. The number on the bottom indicates which note value is counted as one beat. A number 4 at the bottom indicates that a quarter-note is counted as one beat, and an 8 at the bottom indicates that an eighth-note is the standard, which means a quarter-note would actually get two beats, because two eighth-notes equals one quarter-note. These are the two primary numbers you will see at the bottom of a time signature in popular music. The number on the top of the fraction indicates how many of these quarter-notes or eighth-notes occur within a measure of music. This is our meter. The number of notes at the top will be the ones divided into strong and weak beats. The number at the bottom is simply the unit of time we designate for the steady beat.

So a 4/4 time signature indicates that the quarter-note is the unit of time that is counted as one beat (bottom number), and that there are four quarter-notes per measure (top number). 3/4 would indicate that there are three quarter-notes per measure. 6/8 indicates that there are six eighth-notes per measure, and the eighth note is the unit of time that is counted as one beat each. Below is an example of the strong and weak accents that naturally occur within two measures of music that has a meter of 4/4 time. Notice the time signature placed on the left.



Here is a listing of the most common Meters in popular music, along with their accent patterns.

Meter: 2/4 Strong-Weak
Meter: 3/4 Strong-Weak-weak
Meter: 4/4 Strong-Weak-strong-weak
Meter: 6/8 Strong-Weak-Weak-strong-weak-weak

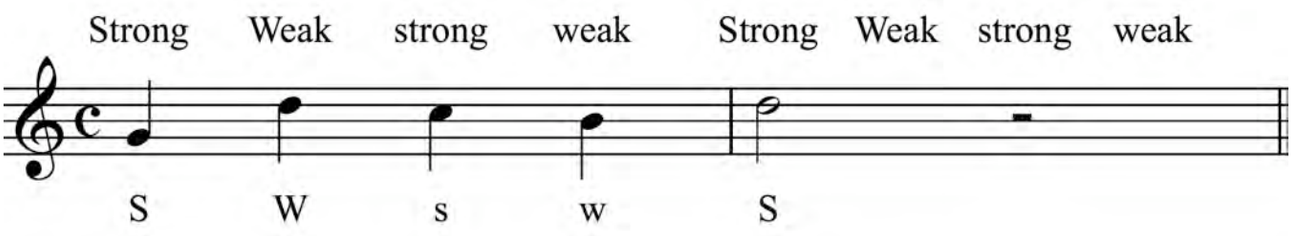
4/4 time (pronounced four-four time), is also called Common Time, and the time signature of 4/4 at the beginning of a music staff will often be replaced with a large letter C for this reason. This is because over ninety percent of all popular music is in 4/4 time. 3/4 time is sometimes referred to as a Waltz rhythm, because this is the meter that was used for the music of the Waltz dance, which was popular for so many centuries in European music. Although the Waltz label is still sometimes used, it does not seem to fit

so well anymore. A good example of a song from the modern era that was written in 3/4 time is “Manic Depression” by Jimi Hendix, which is definitely not a Waltz.

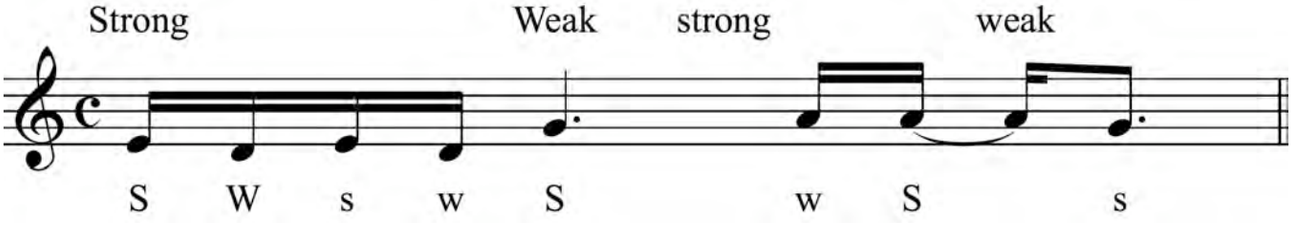
Rhythm of Melody

The meter is the background that the rhythm of melodies will be set against. The melody will have it’s own rhythmic accents, which will interact with the meter. This interaction will produce a summative accent pattern, which can get quite complex. The main point here is to recognize that the meter and the melody notes set against it will each have accent patterns, and they will influence each other.

If every beat within a melody lands squarely on each of the strong and weak beats of the meter, the summative accents will be the same for both the melody and the meter. However, this can produce some very predictable and uninteresting melodies, as in the example below. (Words above the staff represent the Metric accents, letters below the staff indicate the accents of the melody notes).

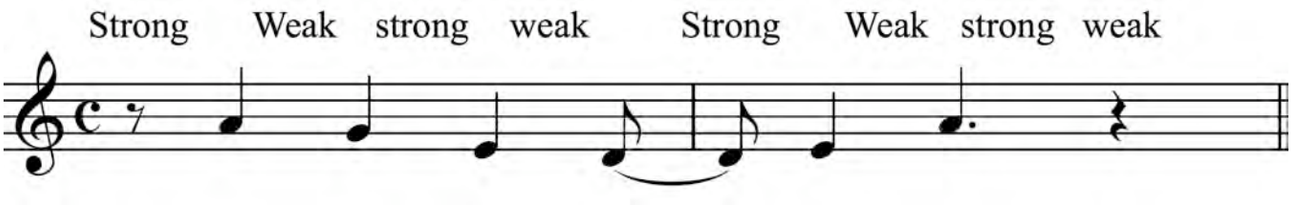


Melodies will more commonly contain notes that are subdivisions of a single metric beat, or notes that are held out over several beats of the meter, in order to create variety, as in the following example.



Notice how the first four sixteenth notes break up the first quarter note beat, which is on a Strong metric placement, into four S-W-s-w subdivisions. Also notice how the next note after them is held out over both a Weak beat and half of a strong beat. The fact that it is a longer note gives it a stronger accent the melody, yet it is placed on a Weak part of the measure. These interactions can get quite complex. However, calculating an exact summation of the accent patterns of both the meter and the melody notes is not necessary. But gaining an awareness of where these strong and weak accents are, and that they do interact with each other, will be useful for creating rhythms within your melodies.

Syncopation is a very important concept to become familiar with. Syncopation is the setting of accented melody on unaccented subdivisions of the metric pulse. Using syncopation can really spice up a melody. This technique can take a melody that may have been stomping like elephants, or dragging behind the beat, and really propel it forward with excitement. However, too much Syncopation can make a melody sound like it is floating outside of the music and not grounded enough in the Meter. When, where, and how much syncopation to apply will really depend on the particular effect you are trying to create. Below is an example of a syncopated melody. Notice how every note of the melody is placed in-between the beats of the meter. When counting 1-and-2-and-3-and-4-and, every note is placed on the "and" rather than the number.



There are many other ways to employ syncopation. These topics will be covered in much greater detail later in the book.

There are several other components of a melody that will affect the strength of accents within the meter. They are listed below.

Pitch:	High pitches will tend to increase the strength of the accent.
Dynamic:	Loud pitches will tend to increase the strength of the accent.
Accent:	Accented pitches will tend to increase the strength of the accent.
Duration:	Pitches held over several beats will sound stronger.
Rests:	If a note comes after a rest it will sound stronger.
Syncopation:	Placing notes on weak beats will create a conflicting accent pattern.

Masculine and Feminine Endings

Masculine verses Feminine ending is another important concept to be aware of. A Masculine ending of a melodic phrase will place the last note of the phrase on one of the primary beats of the Meter. In 4/4 time this would place the final note on one of the beats 1-2-3-4. A feminine ending will place the last note on a subdivision of the beat. Within an eight-note feel, which is counted 1-and-2-and-3-and-4-and, a Feminine ending would occur on the "and" of one of the beats. In a sixteenth note feel, which is counted 1-e-and-a-2-e-and-a-3-e-and-a-4-e-and-a, a Feminine ending could occur on any of the "e," "and,' or "a" subdivisions. A Masculine ending will have a stronger sense of closure, whereas a Feminine ending will tend to sound less resolved. This concept becomes important when considering whether you want the phrase to slow momentum and perhaps end a section of music, or to keep it moving ahead in anticipation of the next phrase.

Prosody: Matching the Accents of Lyrics and Music

Adding further complexity to the accent patterns of the Meter, and the accent patterns within the rhythm of a melody, is the fact that lyrics will have accents of their own. Words within the English language have strong and weak accents. This can be easily heard in the following example. The word "Actually" has strong and weak accents that follow the pattern S-W-s-w. It is pronounced Ac-tu-Al-ly, or Ak-choo-Uh-lee, using the phonetic pronunciation found in the dictionary. Now try changing the accent pattern to W-S-w-s, and pronouncing it ac-Tu-al-Ly (ak-Choo-uh-Lee). Placing weak accents of words on strong beats will have the same effect, and make them stand out like sore thumbs, just as mispronouncing the above word did.

With every word in a lyric you are going to have to match accent patterns to the music. However, this is not nearly as complicated as it may at first seem, for two reasons. One, much of this will be done intuitively. Two, if you are writing lyrics and melodies simultaneously, as so many writers tend to do, the accent patterns of the lyrics will often suggest and dictate several workable rhythms for your melody. Still, it is very important to understand this concept so that corrections can be made when something sounds wrong lyrically. Without this knowledge, you might not understand why some of your lyrics sound so funny when placed on certain beats.

Prosody is a term that was originally used to mean the analysis of stress patterns in poetry. In Music, the term Prosody means two things. One, it refers to matching the accents of words with the accents of music. And two, which is the larger meaning of Prosody in music, is the matching of the meaning of the lyrics to the movement within a melody.

Song Form and Rhythm

Rhythm affects time on the Micro level of individual beats and measures, and the melodic phrases that are set to them, as we have been discussing, but rhythm also affects the larger structures of song sections, and the Macro level of entire song forms. The phrases within a song section will have strong and weak accents just as beats do. For example, a verse that has four phrases will normally follow the accent pattern below.

Phrase 1:	Strong
Phrase 2:	Weak
Phrase 3:	strong
Phrase 4:	weak

This becomes very important when considering where to highlight certain notes of a melody. It is also important when considering where to place key lyric phrases within a section. This will be discussed further when we look at developing song sections later in the book.

When examining entire song forms, we will hear that whole sections of a song, and whole systems of a song (groupings of sections such as verse-chorus), will also have strong and weak accent patterns. Take a look at the example below for an overview of rhythmic accents on the Macro level of song form.

System 1	Verse 1 Verse 2 Chorus 1	Strong Weak Strong
System 2	Verse 3 Verse 4 Chorus 2	strong weak Weak
System 3	Bridge Solo	Strong Weak
System 4	Verse 5 Chorus 3 Chorus 4	Strong Strong Weak

If we examine the verses, they follow the common accent pattern of S-W-s-w.

Verse 1:	Strong
Verse 2:	Weak
Verse 3:	strong
Verse 4:	weak
Verse 5:	Strong

Verse 5 basically begins fresh after the solo with a new Strong verse.

The choruses are divided into a metric rhythm of 2 instead of 4 because of the way the Bridge-Solo section separates the choruses. They adhere to a S-w pattern as listed below.

Chorus 1:	Strong
Chorus 2:	Weak
Chorus 3:	Strong
Chorus 4:	Weak

The Bridge and solo are also divided into a metric rhythm of 2 because it is an entirely independent system of new musical material.

Bridge:	Strong
Solo:	Weak

Looking at the strong and weak flow from system to system can further break down the analysis.

System 1:	Strong
System 2:	Weak
System 3:	strong
System 4:	Strong

If every system contained the same double-verse and chorus format, the last section would normally be the weakest. But due to the fact that System 3 brings in entirely new musical material into the form, with a Bridge and a Solo that are both heard here for the first time, the fourth system is now heard as something fresh, which makes it stronger. This is how climaxes are created in songs, by reintroducing music that you became familiar with earlier in the song, after some type of musical departure such as a bridge.

All this analysis does not have to be as mathematical as it may at first appear. Much of this can be easily felt. The most obvious example being after the first chorus when the next verse enters, it almost always stands out much less than the beginning verse.

Looking at the accent patterns of sections and systems of the song form can help you to put music material that you want emphasized in the right places. It can also help you develop strong song forms that captivate the listener's attention. Much of the structure of current song forms has been developed out of the understanding of how strong and weak sections flow together to either keep a listener interested, or create monotony that encourages his or her mind begin to wander off. This skill is often applied intuitively, and through experience, but a firm understanding of these concepts can dramatically short cut years of guess work and trial and error. It can also give you practical solutions when something in the song does not seem to be working.

* * *

In the next chapter we will examine the pitch content from which melodies are derived.

5. Scales and Keys

All melodies are built from scales. It is essential that you understand how scales are constructed, and how to use them, in order to create effective melodies. When all the pitches of a melodic phrase come from the same scale, it will give that phrase a sense of cohesiveness. And when all of the melodies in a song come from the same scale, or closely related ones, it will give the entire song a solid pitch foundation. The melodies will all seem to be related, and will work together well. Furthermore, chords are all built from scales; to fit melodies and chords together effectively a common scale must be underlying both.

Of course, some songs employ more than one scale, and may also incorporate pitches taken from outside of the primary scales of the song. But advanced topics like modulation, modal interchange, secondary dominant functions, and chromatic pitches, will only make sense, and be usable, once you can develop songs using individual scales.

Most songwriters already know what a scale is, but let's start at the very beginning to ensure a complete understanding of this topic. Sometimes filling in the blanks with a couple of key pieces of information can completely change your ability to understand and make practical use of a topic in more advanced ways. As you read this chapter, make sure that you fully comprehend each piece of information before you move past it. These are the building blocks that you will be constructing songs upon. Gaining a firm grasp of these concepts can dramatically improve your ability to structure melodies and songs.

If we were in a room together, and I was to wave my hand back and forth above my head, as long as there was light in the room, you would be able to see my hand waving. The light vibrations would bounce off of my hand, and vibrate over to your eyes, making the image of me waving visible. But although you would see my hand moving back and forth, the heat from my hand would be completely invisible. Heat vibrations come from the infrared light spectrum, which occur at a slower speed than the human eye can see. Yet a python snake, or a scorpion, would be able to see the heat coming from my hand. This perceptual ability is what allows them to see animals at night, and keep themselves safe from predators. You would also not be able to see ultraviolet light waves, because they vibrate at a faster speed than human eyes can see. Yet wasps and yellow jacket bees, with their five eyes, can see in ultraviolet just fine, and so can a lot of other insects. This enables them to see flowers more clearly. I am sure the world that they look at is very beautiful. But when we consider hearing, you would not be able to actually hear my hand waving at all, except for possibly hearing the rustling of my clothes.

Ears hear, not due to light wave vibrations, but from vibrations of air, which are significantly slower than the speed of light. Even so, the vibrations in the air from my hand waving back and forth would be far too slow for your ears to hear, just as infrared light is too slow for your eyes to see. If, however, I was able to speed up my hand to about 20 waves back-and-forth per second, we are talking Ninja waving ability here, you

would begin to hear a very low pitched hum. If I were able to increase the speed of waving even faster, that low hum would start to rise in pitch. And by the time my hand reached about 20,000 waves per second it would be so high in pitch that you would no longer be able to hear it at all. But a nearby Bassett Hound, or Fox Terrier might start howling. Dogs have a higher hearing range than humans, which is why they can hear high-pitched dog whistles that are imperceptible to humans.

Vibration is the basis of sound. The rate of vibration is called the frequency. This is calculated as cycles per second back-and-forth, which is given the scientific term Hertz (abbreviated as Hz). The frequency of sound is the basis of pitch. Pitch is the psychological correspondent to frequency; it is how high or low we hear sounds. And sound frequencies in the air, which become pitches when we hear them, are the materials we use to create music.

When I pluck the low E string on a guitar, I am creating a vibration of approximately 82.4 cycles per second. The low E string on a bass vibrates at half that speed, 41.2 Hz. The highest note on a piano vibrates at 4,186 cycles per second.

If I take that lowest string on a guitar and divide it in half, by pressing my finger on the twelfth fret, and pick the string, the vibration is doubled. It becomes an exact multiple of the first pitch, and it actually sounds like the same pitch, only higher. This is what is called an Octave. An octave sounds very different than what you would hear by pressing down on a fret other than the twelfth, picking it, and comparing the sound to the open string. These will very clearly sound like different pitches.

Octaves are commonly created when a male and female sing the same song together. Harmony notes, on the other hand, are created when singers sing specific notes of a chord that are not octaves.

In Western Music (our musical heritage of Western Europe and America), and the music of many other cultures as well, the octave has been broken up into twelve subdivisions that we refer to as Half-Steps. When you play every pitch on a guitar string, from the open string all the way up to the twelfth fret, you are essentially playing all of the half-steps of an octave. This is referred to as a Chromatic Scale. Playing twelve keys in a row on a piano, using both the black and white keys, will also create chromatic scales. When you arrive at the thirteenth pitch it will sound just like the pitch you started with, but an octave higher or lower, depending on which direction you went from where you began. If you play every other pitch on either instrument, you will create six Whole-Steps. This is referred to as a Whole Tone Scale.

Now the Chromatic and Whole Tone Scales are not the prettiest sounding scales to use when creating music. The Chromatic Scale comes with too many pitches to define memorable melodies. And the Whole Tones Scale ends up skipping some very foundational pitch relationships. It doesn't include the interval of a fifth, which relates to

the starting pitch (also called the Root) in a fundamental way. This relationship between the root and fifth is derived from the Overtones of the Harmonic Series, and it is one of the cornerstones of Western Music.

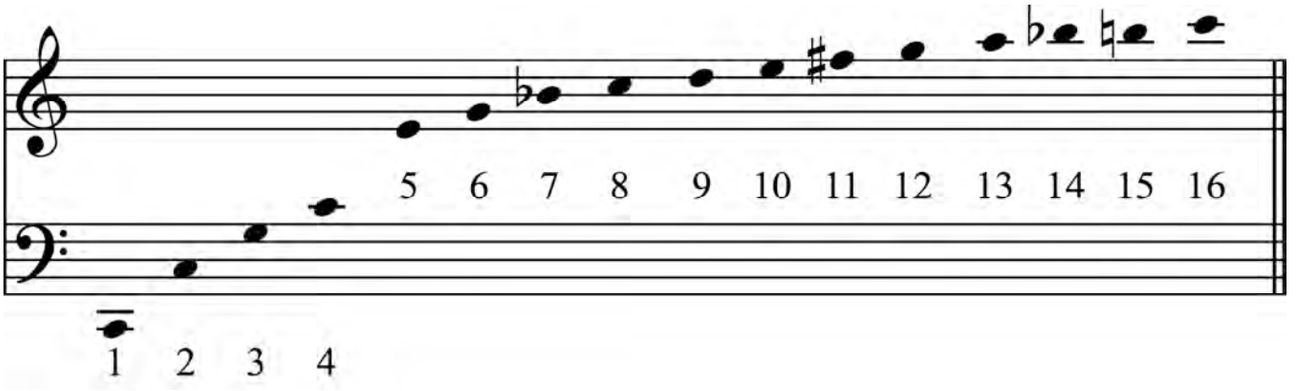
The Harmonic Series

The Harmonic Series is an acoustic phenomenon that occurs with all sounds as they vibrate in the physical world. Within every pitch, unless it is a purely computer generated sine wave, there is an exact series of subdivisions of the Fundamental vibration that occur simultaneously at greater or lesser loudness levels, depending on the instrument creating the pitch. The primary pitch is referred to as the Fundamental, and the subdivisions of that pitch are called Overtones, or Partials. These overtones are like quieter pitches embedded within the fundamental pitch. The different volumes of the overtones from one instrument to the next are actually the reason why two instruments playing the exact same pitch will sound significantly different from one another. This is referred to as the Timbre of the instrument. A piano playing the same exact pitch, in the same octave, as a guitar, will clearly sound like a different instrument. This is due to the various strengths and weaknesses in loudness between the overtones of the two instruments.

These natural overtones are not only responsible for timbre, they are also the basis of many of the very cornerstones of Western Music, and the music of many other cultures as well. They are the source of the twelve half-step subdivisions of the octave that we use, which is where we derive virtually all of our scales and chords. The scales and chords that we use can all be viewed as sub-sets of the 12-pitch chromatic scale. The overtones that are closest to the Fundamental pitch have a stronger influence on the sound. The fact that the whole tone scale is missing one of these primary overtones is what makes it lack musicality in many ways. The influence of the primary overtones is utilized in the way we commonly structure chord progressions in what is called Functional Harmony. Basically, this means it effects the movement of tension and resolution within chord progressions.

Here is a diagram of the Overtone Series built from a low C pitch. These same 16 harmonics will occur in the exact same order within any pitch made from any musical instrument, but their loudness levels will vary from instrument to instrument, creating the different timbres of the different instruments.

Ex: 5-1



In some of the scales that we commonly use, a clash occurs between certain notes of the scale and natural acoustics, because these notes do not occur in the Harmonic Series. The 4th degree of the major scale does not occur in the Harmonic Series at all. This same phenomenon occurs with the Flat 3rd from the Minor Scale, and the Flat 2nd from many Middle Eastern and East Indian Scales.

This has presented a challenge for Musicologists and Music Theorists. They sometimes struggle to explain why there is such widespread use of scales that are primarily based on the Harmonic Series, yet contain one pitch that is in conflict with the vibrations of nature. I feel that this can easily be explained as a creative manifestation of moods within the human condition, which often do conflict with nature. Aesthetics can be defined as the creative combination of two or more things that normally would not go together in order to create an additional thing that is greater than the sum of its parts. This is exactly what happens when some of the pitches of our scales clash with the harmonic series. They present us with pitch material that is possibly more interesting, and more uniquely human, than natural acoustics alone would provide. When we leave out overtones that are very close to the fundamental pitch however, as with the whole tone scale leaving out the 5th, this doesn't lend itself so well to melody creation.

These topics delve into the science of Acoustics, and the philosophy of Aesthetics, which can be fascinating in themselves, but lie far beyond the scope of this book. Nevertheless, many of the mathematical relationships of acoustics that occur naturally within vibrations have been incorporated into music, not by mathematicians or philosophers, but by the intuitive ears of musicians themselves. Throughout history, from the Ancient Greeks, to the Monks singing in Church cathedrals, to rock bands of the 20th century playing in stadiums, there has been an ongoing development and organization of these 12 pitches of the octave into musical scales. This evolution of our music history is yet another fascinating study that would encompass a whole volume in itself. So let's just say the centuries of musicians and composers who came before us worked it out pretty well, and have given us the material that we use on a regular basis today for creating and performing music today.

Don't let this section on the Harmonic Series confuse you. It is somewhat of a technical subject, and was primarily written for songwriters who have a burning desire to understand several topics: One, exactly why we have divided the octave into 12 pitches, as opposed to 9, 27, or some other number; and Two, what the reasons are for using the scales that we use. The short answer to both of these questions are that the pitches we use are primarily based on the harmonic series, which is the way vibrations manifest themselves in nature. However, it is not essential that you fully understand the harmonic series to move ahead through this book. So let's move on to the scales that songwriters commonly use to create great melodies.

The 6 most common scales used in popular music:

- Major Scale
- Major Pentatonic Scale
- Major Blues Scale
- Minor Scale
- Minor Pentatonic Scale
- Blues Scale

Major Scale

The scale that the majority of popular music today is built from is called the Major Scale. We will spend a little more time on this scale than the others because, as you will see, most of the pitches of the other 5 commonly used scales are directly derived from the Major Scale. Once you understand this scale, and the system of letters and keys we use with it, it will be very easy to understand the other 5 scales.

Unlike the Chromatic and Whole Tone Scales, which contain either all half-steps, or all whole-steps, respectively, the Major Scale is a seven-pitch scale that contains a combination of whole-steps and half-steps which follow this Numerical Formula:

1		2		3		4		5		6		7		1
	^		^		^		^		^		^		^	
	w		w		½		w		w		w		½	

w = whole-step
½ = half-step

Regardless of what pitch we begin the major scale from, the half-steps will always occur between the 3rd and 4th pitches, and between the 7th and 8th pitches. When we get to the 8th pitch, it is exactly one octave higher than the 1st. This pitch one octave away is usually referred to as 1 rather than 8, both of which are labeled as the Root of the scale. The same sequence of pitches can then repeat in the next Octave.

Half steps are between 3-4 and 7-1

Because we can build this 7-note scale starting from any of the 12 subdivisions of the octave, there are actually 12 possible major scales. Many of them will have pitches in common, but none of them will have every pitch in common with another major scale. Each will provide a completely unique combination of pitches that will be different from any of the other 11 Major Scales. The 12 major scales, and the chords that are built from them, are referred to as different Keys.

Pitches and Letter Names

Way back in music history, various seven-note scales, such as the major scale, became the standard from which music was written. Letters of the alphabet were then associated with pitches of the scales. Since there are seven pitches in each major scale, the first seven letters of the alphabet, A through G, were used to identify these pitches. When singing or playing a major scale, once the octave is reached the letters can be repeated in the next octave.

Due to the fact that certain modes of the major scale (beginning and ending the scale on pitches other than 1) were more prominently used during this developmental period, the letter C, and not A, became associated with the starting point of the first of the 12 major scales. When playing the piano, if you play only the white keys, and not the black ones, you will be playing all of the pitches of the C major scale. The white key just to the left of the group of two black keys (as opposed to the group of three black keys) is the pitch C. And depending on how wide your particular piano keyboard is, it can encompass up to eight octaves of C major scales. The C that is just to the left of the center of the piano is called middle C, which is an important musical reference point to become familiar with.

When letters of the C major scale are applied to the Numerical Formula for Major Scales, they correspond to the half-steps and whole-steps of the scale as follows.

C	D	E	F	G	A	B	C
^	^	^	^	^	^	^	
w	w	½	w	w	w	½	

Half-steps are between: E-F and B-C.

The numbers or letters are both referred to as the degrees of the scale, or scale degrees. In the above case, C would be the Root of the scale.

Keys

There are 12 possible pitches on which to begin a major scale,. These are derived from the 12 half-step subdivisions of an octave, also known as the chromatic scale. The major

scales built from each of these pitches are called Keys. But the letters that we have been using will only correspond correctly to the numerical formula in the key of C. The scales in all the other keys will need to adjust certain letters up or down by half-steps in order for them to fit the same pattern. The half-step and whole-step relationships between the letters have been "set in stone" as it applies to the key of C. Now watch what happens when we apply it to a key with a different starting pitch.

Key of G: Wrong

G	A	B	C	D	E	F	G
^	^	^	^	^	^	^	
w	w	½	w	w	½	w	

Notice that in the key of G, everything lines up just fine until we get to the letter F. According to the numerical formula for scales, there should be a half step between the last scale degree and the octave. In the key of C that is between the letters B and C. But if we build a scale starting from G instead, it needs to be between F and G. It is not, because our letters have already been defined as having the half-steps set between E-F and B-C. The way to solve this for all of the other 11 keys is to either raise (make Sharp), or lower (make Flat), various letter names, along with their corresponding pitches, to allow them to fit the numerical formula.

Sharp symbol: #	placed after a letter, or before a note
Flat symbol: b	placed after a letter, or before a note

"Accidentals" is the term we give to pitches that contain Sharps or Flats.

So in the key of G we have to raise the letter F to an F# so that the half-step occurs between 7-1 instead of between 6-7. This will maintain the scale pattern when starting on G instead of C.

Key of G: Corrected

G	A	B	C	D	E	F#	G
^	^	^	^	^	^	^	
w	w	½	w	w	w	½	

Let's now pick another letter to build a scale from.

Key of F: Wrong

F		G		A		B		C		D		E		F
	^		^		^		^		^		^		^	
	w		w		w		½		w		w		½	

Notice that there is a half-step between B-C, the 4th and 5th scale degree, but it needs to be between A-B, the 3rd and 4th. In order to maintain the major scale pattern we have to lower the B a half-step.

Key of F: Corrected

F		G		A		Bb		C		D		E		F
	^		^		^		^		^		^		^	
	w		w		½		w		w		w		½	

> General rule for knowing whether to use sharps or flats: Each of the 7 letters should be represented within the scale. If you use accidentals on the wrong letter, you will end up skipping a letter entirely, and having another letter appear twice within the scale.

We are only using 7 letters of the alphabet, but there are actually 12 possible starting pitches from which to build a major scale, taken from each of the 12 pitches of the chromatic scale. So we are going to actually have to use some sharp or flat letters as starting points for 5 of the 12 keys. Here are the letters that the 12 major scales are built from:

<u>All 12 Keys</u>

A Bb B C Db D Eb E F Gb G Ab

Notice that there is no room between B and C for a Cb. This would be the same pitch as B, due to the fact that these letters are already a half-step apart. Also, notice there is no room between E and F for an Fb for the same reason; this would be the same pitch as E. The reason we use letters like Bb, instead of A#, has to do with the fact that we would end up skipping one of the seven letters and doubling up on another one, if done the other way. We would also incur some double sharps and double flats on certain letters, which would make the system very awkward to use. All seven letters need to be represented once, and only once, within the each scale.

3 Additional Key Names

F# instead of Gb (same pitches in both)
C# instead of Db (same pitches in both)
Cb instead of B (same pitches in both)

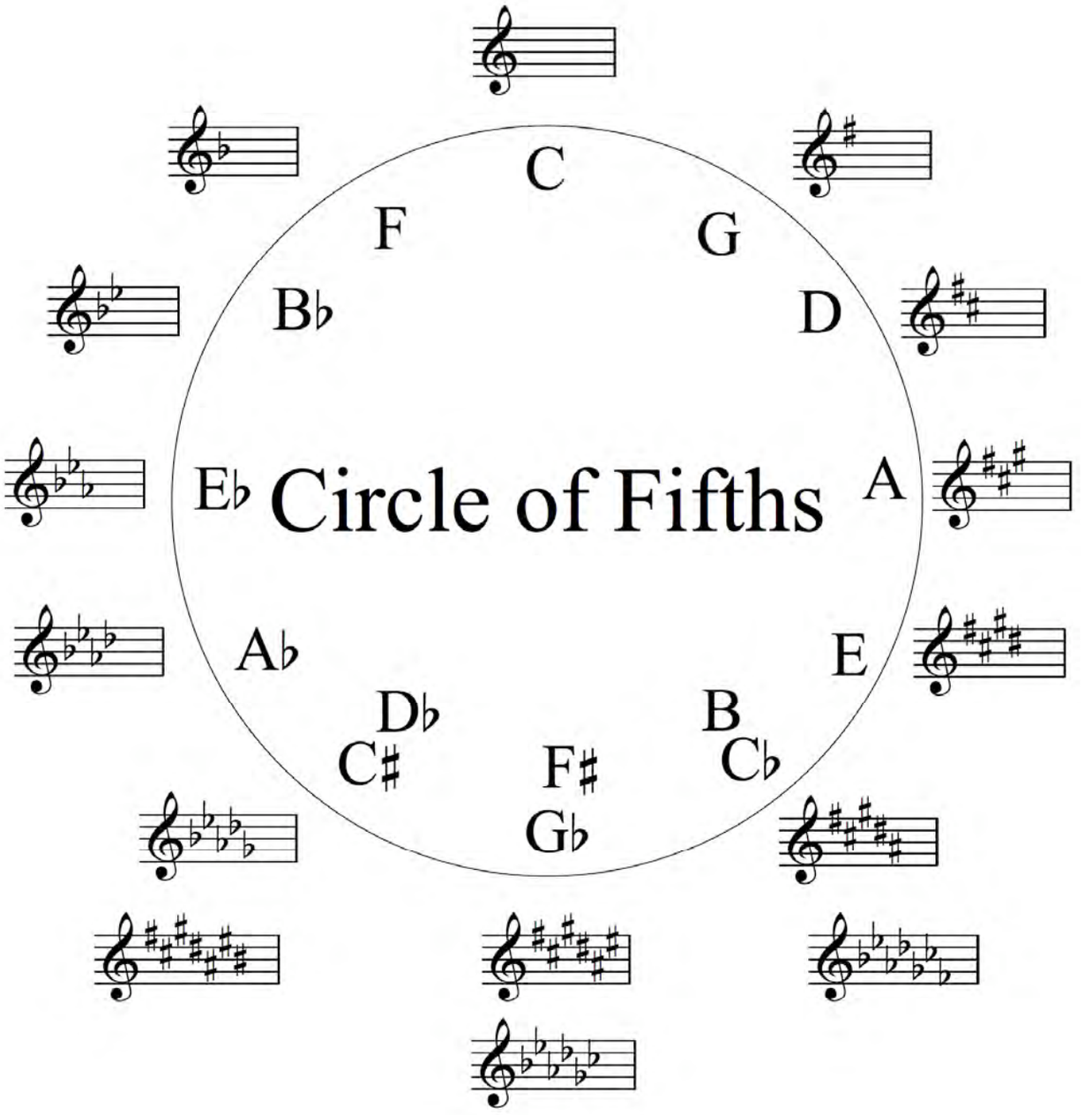
Enharmonics: When the same pitches are spelled differently, by using sharp letters instead of flat ones, they are called Enharmonic Equivalents.

The Enharmonic keys of F# and Gb can be used interchangeably, because they both contain the exact same pitches, and they each have the same number of accidentals: Key of F# (6 sharps); Key of Gb (6 flats). Very rarely C# is used instead of Db; they both contain the same pitches, but using C# would give you seven sharp letters instead of only five flat ones from the key of Db. And Cb is only occasionally used instead of B; they both contain the same pitches, but using Cb would give you seven flat letters instead of only five sharp ones from the key of B.

It can be slightly easier to conceptualize music when using letters that don't have accidentals (sharps or flats) attached to them. It can also be easier for musicians to read written music notation that contain fewer accidentals. Sometimes, from a composer's theoretical perspective however, a composition will be written in a key that is less practical for performers, because it makes more sense harmonically and theoretically to the composer as he is developing the piece. These keys that are more difficult for reading are usually changed to more practical keys when the individual parts are written out for performers, or in song-books.

Circle of 5ths

It turns out, as a mathematical coincidence, that every time we play a scale 5 letters higher than the previous one, we need to add one sharp to the key, to maintain the proper scale pattern; and every time we start a scale 5 letters lower than the previous one we need to either take a way a sharp, or add a flat, to maintain the proper scale pattern. This phenomenon led to a convenient way of conceptualizing the letters of all 12 keys. It is called the Circle of 5ths.



The keys around the right side of the circle will contain various sharp letters, and the keys on the left side will contain various flat letters. The exception being the key of C, which has neither sharps nor flats, and the uncommon keys Cb and C#, which have all flats or sharps, respectively, and are awkward substitutes for the keys of B and Db anyway. A simple acronym to help you memorize the keys as they appear around the circle of fifths is "Good Dogs Are Everyone's Best Friend," for the letters G-D-A-E-B-F. This can be used for the sharp keys around the right side of the circle, and thought of in reverse order for the flat keys around the left side.

As scales are constructed from different starting points around the circle, a sharp or flat is added or subtracted progressively from each subsequent scale. Here is the order in which these accidentals will be added or subtracted.

Order of Sharps: F C G D A E B
Order of Flats: B E A D G C F

As you can see, the order of flats is an exact inversion of the order of sharps. They contain the same order of letters, in reverse. It is easy to remember this by memorizing the order of flats as the word BEAD + GCF, and then thinking of this backwards for sharp keys. Another good acronym is the phrase "Fat Cats Go Down Alleys Eating Birds." This can be used for the sharp keys, and thought of in reverse for the flat keys.

Following this formula around the circle, it is simple to calculate that the key of G will have one sharp letter, and it will be F#. The key of D will have two sharp letters, and they will be F# and C#, etc. For flat keys, the key of F will have one flat letter, and it will be Bb. The key of Bb will have two flat letters, and they will be Bb and Eb, etc.

The following chart expands upon the above diagram by displaying exactly which letters occur in each key, in their proper order. Keep in mind that every major key will follow the exact same formula of half-steps and whole-steps.

1 2 3 4 5 6 7 1
^ ^ ^ ^ ^ ^ ^
w w ½ w w w ½

Key of C	C	D	E	F	G	A	B	C

Sharp Keys

Key								
G	G	A	B	C	D	E	F#	G
D	D	E	F#	G	A	B	C#	D
A	A	B	C#	D	E	F#	G#	A
E	E	F#	G#	A	B	C#	D#	E
B	B	C#	D#	E	F#	G#	A#	B
F#	F#	G#	A#	B	C#	D#	E#	F#
C#	C#	D#	E#	F#	G#	A#	B#	C#

Key of F# and Gb are enharmonic equivalents, they both contain the same pitches and are interchangeable because they each have the same number of accidentals (6 sharps or 6 flats, respectively).

Keys of C# and Db are enharmonic equivalents, they both contain the same pitches, but Db has only 5-flats, whereas C# has 7-sharps, making Db the more commonly used key.

Notice that in the key of F#, the E# is actually the same as pitch as F, but it is not called F in order to avoid skipping the letter E altogether, and having two Fs (both a natural F, and an F#) in the scale instead. Also notice that in the key of C#, in addition to E# being the same pitch as the letter F, the B# is the same as C. Here we don't use the letters F instead of E#, or C instead of B#, for the same reason.

Flat Keys

Key								
F	F	G	A	Bb	C	D	E	F
Bb	Bb	C	D	Eb	F	G	A	Bb
Eb	Eb	F	G	Ab	Bb	C	D	Eb
Ab	Ab	Bb	C	Db	Eb	F	G	Ab
Db	Db	Eb	F	Gb	Ab	Bb	C	Db
Gb	Gb	Ab	Bb	Cb	Db	Eb	F	Gb
Cb	Cb	Db	Eb	Fb	Gb	Ab	Bb	Cb

Keys of Gb and F# are enharmonic equivalents; they both contain the same pitches and are interchangeable because they each have the same number of accidentals (6 flats or 6 sharps, respectively).

Keys of Cb and B are enharmonic equivalents, they both contain the same pitches, but B has only 5-sharps, whereas Cb has 7-flats, making B the more commonly used key.

Notice notice that in the key of Gb, the Cb is actually the same pitch as B, but it is not called B to avoid skipping the letter C altogether and having two Bs (both a natural B, and a Bb) in the scale instead. Also notice in the key of Cb, in addition to Cb being the same pitch as the letter B, the Fb is the same as E. Here we don't use the letters B instead of Cb, or E instead of Fb, for the same reason.

> Note: The sharp keys don't mix in any flats, and the flat keys don't mix in any sharps. This avoids skipping certain letters, and doubling up on other ones.

The following method can help you to memorize all of the letters in all 12 keys very quickly.

3-Step Key Memorization technique:

1) Does the key contain sharps or flats?
   Solution:
   They key of C has neither sharps nor flats.

If there is a sharp or flat symbol after the letter, the key will obviously contain those types of accidentals.
F has flats; all other keys with no accidental symbol will contain sharps.

2) How many sharps or flats are in the scale?
   Solution:
   Use the acronym "Good Dogs Are Everyone's Best Friend" for the letters G-D-A-E-B-F, which is the order of keys, and the order of flat keys in reverse. For sharp keys, from left to right we add sharps, G having one sharp and F# having 6; For flat keys, from right to left we add flats, F having one flat and Gb having 6.
   Sharp keys: G D A E B F#
   Flat keys: F Bb Eb Ab Db Gb

3) Which letters in the key get sharps or flats?
   Solution:
   Use this acronym: "Fat Cats Go Down Alleys Eating Birds" for the letters F-C-G-D-A-E-B. From left to right is the order of sharps, from right to left is the order of flats.

Example: What pitches are in the key of A?

1) According to the criteria in step one, the key of A must contain sharps.
2) Using the acronym "Good Dogs Are Everyone's Best Friend," from left to right we determine that the Key of A must contain three sharps.
3) Using the acronym "Fat Cats Go Down Alleys Eating Birds," from left to right we find that the three sharp letters in the Key of A are F-C-G

Therefore, the key of A contains the letters A-B-C#-D-E-F#-G#

Remember for flat keys to follow these acronyms in reverse: from right to left.

That is really all there is to the system of major scales and keys. And as we will see, most of the other scales you will use within popular music will be derived from the Major Scale. It can be a little complicated, but it is not Rocket Science. If you want to quickly master this system, here are the two most common methods: One, learn to read music on your primary instrument. Taking lessons from a teacher with a music degree is usually a much faster way to accomplish this than attempting to learn it all on your own. Two, purchase a workbook on music harmony and theory, and grab a pencil to begin completing the exercises. Any college or conservatory music program will have a required workbook for their Harmony and Theory courses, which you can order from their bookstore. It is also a good idea to have a private music teacher check your work, to make sure you are not trying to build the foundation of your music education on any misunderstandings of the system.

Major Pentatonic Scale

Pentatonic scales are 5-note scales. The prefix “Penta,” which is taken from the Greek language, literally means “five.” “Tonic” means the “Root,” or starting pitch. Therefore, Pentatonic means 5-pitches between the starting pitch and the octave. Although much of our system of music was developed over the last 1200 years in Western Europe, the early developments were all taken from the Ancient Greeks. During the dark ages, which was a period of approximately 1000 years, between the fall of the Roman Empire somewhere around 500 A.D., and the Renaissance in the 1500s, most of civilization’s advanced cultural and scientific knowledge had been lost. The Ancient Greeks, during this time, were looked to as having been the apex of high culture and intellectual knowledge. Many of the foundations of our system of music is directly derived from their knowledge of music. That is why you will find many Greek terms used in music.

The Major Pentatonic Scale can be thought of as a skeleton of the Major Scale. If you were to leave out the half-steps of the major scale, between 3-4 and 7-1, by eliminating the unstable pitches 4 and 7 (unstable pitches will be covered in the section on Tendency Tones), the result would be a major pentatonic scale.

Major Scale

1	2	3	4	5	6	7	1
	^	^	^	^	^	^	^
	w	w	½	w	w	w	½

Major Pentatonic Scale

1	2	3	5	6	1
	^	^	^	^	^
	w	w	1½	w	1½

The letter names for the major pentatonic scale follow the same format as all the keys of the major scale. In the key of C the letters would be as follows:

C Major Pentatonic Scale

C	D	E	G	A	C
	^	^	^	^	^
	w	w	1½	w	1½

Although the 5-pitch major pentatonic scale can be directly constructed by deleting pitches from the 7-pitch major scale, this is not necessarily how the scale is always derived. Various forms of pentatonic scales are common in many cultures throughout the world that do not have major scales at all. Although Pentatonic Scales have been used for

centuries in our system of music as subsets of major and minor scales, when we look at twentieth century developments in music, such as Blues, Jazz, and Rock, we see that the pentatonic scales that came into common use during this period actually grew out of a clash of cultures. It was the African pentatonic scales, that had no basis in major scale tonality whatsoever, which were incorporated into the Western European music tradition, that became the basis for these styles of music. The fact that we can derive these same scales from the major scale was merely a coincidence.

Major Blues Scale

When we look further at the African influence on popular styles of music from the twentieth century, we see a common variation on the major pentatonic scale: the Major Blues Scale. This scale can be thought of as a major pentatonic scale with an added pitch. The pitch that is added is the Flat 3rd, which is commonly referred to as the Blues Note within the scale.

Major Blues Scale

1	2	b3	3	5	6	1
	^	^	^	^	^	^
	w	½	½	1½	w	1½

C Major Blues Scale

C	D	Eb	E	G	A	C
	^	^	^	^	^	^
	w	½	½	1½	w	1½

Notice here that there are chromatic pitches (pitches ½ step apart) between 2-b3-3 (D-Eb-E). This type of chromatisism, which was a common feature in the Blues, was incorporated much more extensively into Jazz, where connecting scale tones with chromatic notes became very idiomatic of the style.

Minor Scale

Now that you understand how the major scale is constructed, learning Minor Scales will be exceedingly simple. The minor scale is considered a Mode of the major scale. There are several variations of this scale, the Natural Minor Scale being the most common. All the variations are derived from the natural minor. To construct a natural minor scale, all that you need to do is take any major scale and begin and end it on 6 instead of 1. The reason this is considered a mode of the major scale is that all of the pitches of a minor scale will be exactly the same as the pitches of the major scale from which it is derived;

only the root, or starting point, will change. The major scale from which the natural minor scale is derived is considered a Relative Scale.

Relative Major and Minor Scales

The construction of the Natural Minor Scale from its Relative Major is shown below.

Numerical Formulas

Major Scale:

1		2		3		4		5		6		7		1
	^		^		^		^		^		^		^	
	w		w		½		w		w		w		½	

Relative Minor Scale:

6		7		1		2		3		4		5		6
	^		^		^		^		^		^		^	
	w		½		w		w		½		w		w	

Alphabetic Formulas

Major Scale, key of C:

C		D		E		F		G		A		B		C
	^		^		^		^		^		^		^	
	w		w		½		w		w		w		½	

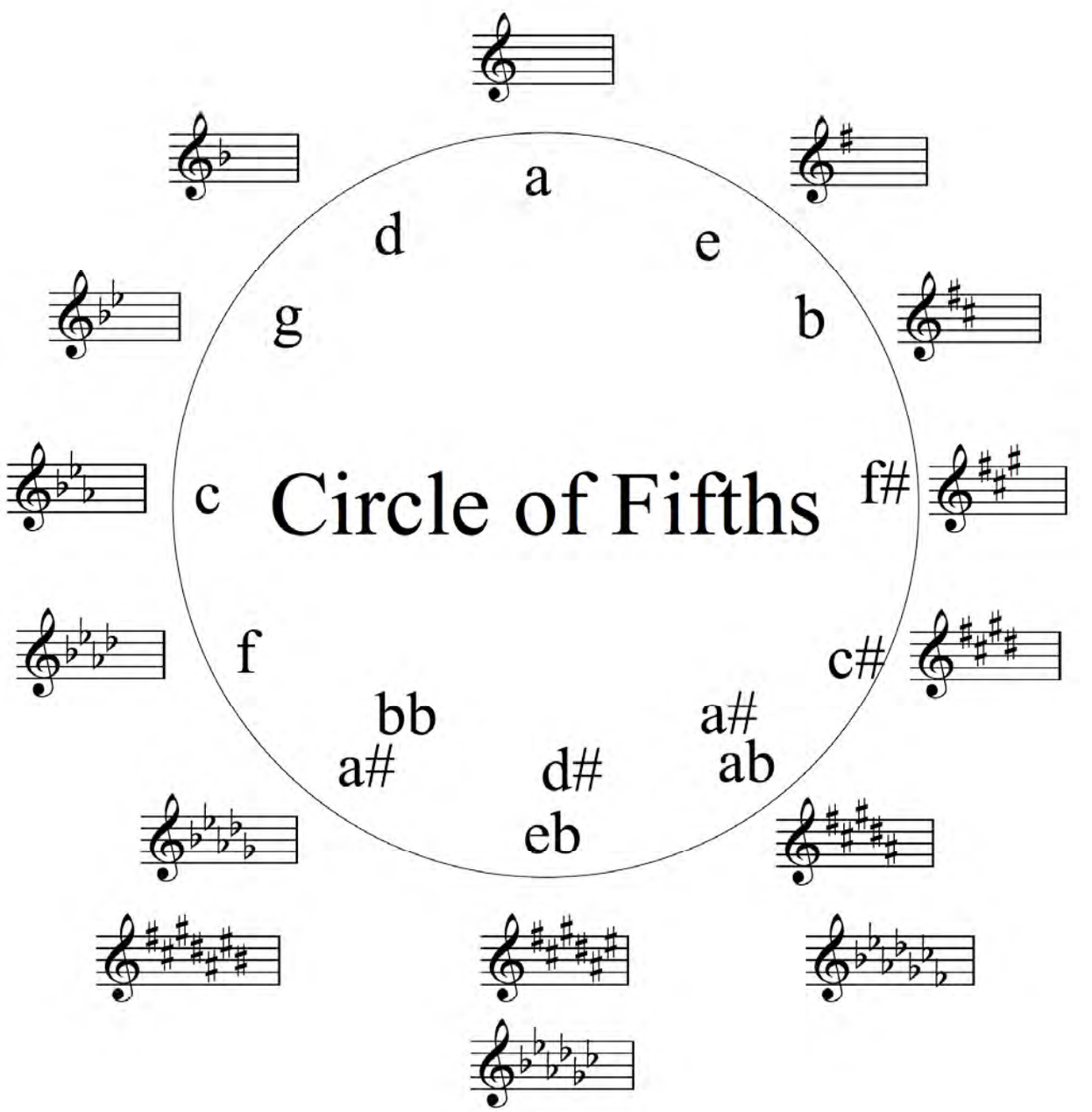
Relative Minor Scale, key of Am:

A		B		C		D		E		F		G		A
	^		^		^		^		^		^		^	
	w		½		w		w		½		w		w	

As you can see, the relative major and minor scales contain the exact same pitches, it is only the starting points that have changed. All of the 12 Minor Scales can be derived in this manner from their Relative Major Scales.

Circle of 5ths with Minor Keys

The Circle of 5ths for minor keys will function in the exact same way as it does for major keys, the only difference being that there will now be new starting points for each key taken from the 6th degree of each major scale, to define the relative minor sound. They will replace the original key names. All of the letters and accidentals within the keys will remain the same.



The following chart expands upon the above diagram by displaying exactly which letters occur in each key, in their proper order. Keep in mind that every minor key will follow the exact same formula of half-steps and whole-steps.

Key of Am	A	B	C	D	E	F	G	A

Sharp Keys

Key								
Em	E	F#	G	A	B	C	D	E
Bm	B	C#	D	E	F#	G	A	B
F#m	F#	G#	A	B	C#	D	E	F#
C#m	C#	D#	E	F#	G#	A	B	C#
G#m	G#	A#	B	C#	D#	E	F#	G#
D#m	D#	E#	F#	G#	A#	B	C#	D#
A#m	A#	B#	C#	D#	E#	F#	G#	A#

Key of D# minor: same as Key of Eb minor, interchangable
Key of A# minor: same as Key of Bb minor, not used often

Flat Keys

Key								
Dm	D	E	F	G	A	Bb	C	D
Gm	G	A	Bb	C	D	Eb	F	G
Cm	C	D	Eb	F	G	Ab	Bb	C
Fm	F	G	Ab	Bb	C	Db	Eb	F
Bbm	Bb	C	Db	Eb	F	Gb	Ab	Bb
Ebm	Eb	F	Gb	Ab	Bb	Cb	Db	Eb
Abm	Ab	Bb	Cb	Db	Eb	Fb	Gb	Ab

Key of Eb minor: same as Key of D# minor, interchangable
Key of Ab minor: same as Key of G# minor, not used often

Parallel Major and Minor Scales

Another method of building a Natural Minor Scale, which leads to the exact same result, is to use the half-step whole-step minor scale formula to create minor scales from any starting point.

Minor Scale Formula

6 7 1 2 3 4 5 6
^ ^ ^ ^ ^ ^ ^
w ½ w w ½ w w

Parallel Minor is a comparison of major and minor scales that both begin on the same root. The two scales will contain different pitches from each other, which is very different from relative major and minor keys that contain the same pitches but have different starting points. In order to think in terms of parallel minor, we have to shift our thinking so that 6 is now our home note, or root. We have to now think of 6 as 1.

1 2 3 4 5 6 7 1
^ ^ ^ ^ ^ ^ ^
w ½ w w ½ w w

Next, by comparing major and minor scales that begin on the same root we will arrive at what is referred to as Parallel Major and Minor Scales. When we do this, the major scale is used as a reference, and any pitch in the numerical formula for the minor scale that varies from those in the major scale will display accidentals.

Major Scale

1 2 3 4 5 6 7 1
^ ^ ^ ^ ^ ^ ^
w w ½ w w w ½

Parallel Minor Scale

1 2 b3 4 5 b6 b7 1
^ ^ ^ ^ ^ ^ ^
w ½ w w ½ w w

We now see that the minor scale varies from its parallel major with a flatted 3rd, 6th, and 7th degrees of the scale. When displaying the degrees of any minor scale numerically, it is normally this parallel minor formula that will be used.

When letters are applied to the minor scale formula, this works out exactly the same as deriving minor scales from their relative majors.

1 2 b3 4 5 b6 b7 1
^ ^ ^ ^ ^ ^ ^
w ½ w w ½ w w
A B C D E F G A

In addition to being able to construct a minor scale from its numeric formula, rather than deriving it from its relative major, now we also have a method of comparison between parallel major and minor keys.

C Major Scale:

1	2	3	4	5	6	7	1
^	^	^	^	^	^	^	
w	½	w	w	½	w	w	
C	D	E	F	G	A	B	C

C Minor Scale:

1	2	b3	4	5	b6	b7	1
^	^	^	^	^	^	^	
w	½	w	w	½	w	w	
C	D	Eb	F	G	Ab	Bb	C

This comparison becomes very useful when dealing with Modal Interchange (also referred to as Mode Mixture). Modal interchange is a technique of adding pitches or chords from a Parallel Mode into the key for sections of a song or composition.

Parallel major and minor scale will each be relative to completely different keys. For example, C Major and C Minor are parallel keys, but C Major is relative to the Key of A Minor, whereas C Minor is relative to the Key of Eb Major.

Forms of the Minor Scale:

There are several variations of the Natural Minor Scale that are commonly used. They are as follows:

Harmonic Minor
Traditional Melodic Minor
Jazz Melodic Minor

Harmonic Minor Scale

The Harmonic Minor Scale was developed out of a desire for stronger harmonic cadences within minor chord progressions. In Functional Harmony, which is, for the most part, still the primary system of chord progression in use in popular music today, chords have a strong tendency to progress toward certain other chords of the key, due to natural tensions and resolutions between pitches within the chords. In major keys, the V chord has a strong tendency to progress back to the I chord of the key. (Roman numerals are

commonly used to represent chords within a given key). This produces a strong Cadence (feeling of final resolution or closure to a section of music). Virtually every piece of music from the Classical era will have this V-I Harmonic Cadence at the very end of the piece, and many songs today still use this type of ending. However, in minor keys the V chord is a minor chord, not a major chord as it is in major keys. This produces a significantly weaker harmonic cadence, and much less of a sense of finality at the end of a section of music. To solve this problem, composers would often change the V chord in minor keys to a major chord for certain sections of music where a strong Cadence was desired. Chords are built from scales, so in order to do this, one pitch in the natural minor scale needed to be altered. This pitch was the b7th, which had to be raised a half-step to become a natural 7th. The result was a minor Scale with a natural 7th. This was labeled the Harmonic Minor Scale, because it was created for harmonic reasons (having to do with chords) rather than melodic reasons. Nevertheless, when that major V chord comes along in a minor key, if the melody is going to utilize the 7th degree of the scale it had better use a natural 7th and not a b7th or there will be a noticeable clash between the melody and the chord.

Harmonic Minor Scale Formula

1	2	b3	4	5	b6	7	1
^	^	^	^	^	^	^	
w	½	w	w	½	1½	½	

A Harmonic Minor Scale

A	B	C	D	E	F	G#	A
^	^	^	^	^	^	^	
w	½	w	w	½	1½	½	

The sound of Harmonic Minor is heard quite a bit today in Latin Influenced popular music such as Latin Rock.

Traditional Melodic Minor Scale

The Harmonic Minor Scale solved one problem, how to create stronger cadences in minor keys, but created another. The interval of 1½-steps between the b6th and the 7th degrees of the scale is an augmented second, a very wide interval when set within a scale that uses only half-steps and whole-steps. This can be a difficult interval to sing. It can also stand out and sound very awkward within certain melodies. It does, however, tend to be a signature sound of much of the music from the Middle East and India, but their scales are typically sung over one bass note. Their melodies do not have to fit into a complex system of chords such as ours.

To solve this problem, composers developed the Melodic Minor Scale. In this scale, in addition to raising the b7th of the natural minor scale to a natural 7th, the b6th is also raised to a natural 6th. This could now be thought of as a major scale with a flat 3rd, because it has all the other notes in common with a parallel major scale. But the 3rd degree of the scale so strongly defines whether the tonality is major or minor that this scale will more commonly be thought of as a minor scale with a raised 6th and 7th. This handled the problems with melody, and also satisfied the harmony issues of wanting a major V chord in a minor key.

When writing melodies, it came into common usage that when using the melodic minor scale, it would be followed ascending only, and when descending there would be a return to the natural minor scale. Below is the final product referred to as the melodic minor scale.

Melodic Minor Scale Formula

(Ascending)

1	2	b3	4	5	6	7	1
^	^	^	^	^	^	^	
w	½	w	w	w	w	½	

(Descending)

1	b7	b6	5	4	b3	2	1
^	^	^	^	^	^	^	
w	w	½	w	w	½	w	

A Melodic Minor Scale

(Ascending)

A	B	C	D	E	F#	G#	A
^	^	^	^	^	^	^	
w	½	w	w	w	w	½	

(Descending)

A	G	F	E	D	C	B	A
^	^	^	^	^	^	^	
w	w	½	w	w	½	w	

Jazz Melodic Minor Scale

When Jazz musicians and composers began using the Melodic Minor Scale, they found it much more useful to keep the 6th and 7th raised both ascending and descending. Below is the result:

Jazz Melodic Minor Scale
(Ascending and Descending)

1	2	b3	4	5	6	7	1
^	^	^	^	^	^	^	
w	½	w	w	w	w	½	

A Jazz Melodic Minor Scale
(Ascending and Descending)

A	B	C	D	E	F#	G#	A
^	^	^	^	^	^	^	
w	½	w	w	w	w	½	

Minor Pentatonic Scale

The Minor Pentatonic Scale can be thought of as a skeleton of the natural minor scale. If you were to leave out the half-steps of the natural minor scale, between 2-b3 and 5-b6, by eliminating the unstable pitches 2 and b6 (unstable pitches will be covered in the section on Tendency Tones), the result would be a Minor Pentatonic Scale.

Minor Scale

1	2	b3	4	5	b6	b7	1
^	^	^	^	^	^	^	
w	½	w	w	½	w	w	

Minor Pentatonic Scale

1	b3	4	5	b7	1
^	^	^	^	^	
1½	w	w	1½	w	

The letter names for the minor pentatonic scale follow the same format as all the 12 keys of the minor scales. In the key of A minor the letters would be as follows:

A Minor Pentatonic Scale

A		C		D		E		G		A
	^		^		^		^		^	
	1½		w		w		1½		w	

Deleting pitches from the 7-pitch natural minor scale can form the 5-pitch minor pentatonic scale, just as we can derive the major pentatonic scale by deleting pitches from the major scale. We often use minor pentatonic scales as subsets of natural minor scales in just such a manner. Yet, this is not necessarily how the scale is always derived. A good portion of the melodies within popular styles of music came directly out of the influence of African Minor Pentatonic Scales, which has no basis in the minor scale tonality of Western major and minor scales at all. The fact that we can also derive the minor pentatonic scale from the natural minor scale is sometimes just a coincidence.

Blues Scale

The Blues Scale is a common variation of the minor pentatonic scale. This scale can be thought of as a minor pentatonic scale with an added pitch. The pitch that is added is the Flat 5rd, which is commonly referred to as the Blues Note within the scale. This is another instance of the African melodic influence on popular styles of music of the twentieth century.

Blues Scale

1		b3		4		b5		5		b7		1
	^		^		^		^		^		^	
	1½		w		½		½		1½		w	

A Blues Scale

A		C		D		Eb		E		G		A
	^		^		^		^		^		^	
	1½		w		½		½		1½		w	

Notice here that there are Chromatic pitches (pitches ½-step apart) between 4-b5-5 (D-Eb-E). Chromaticism is a common feature in the Blues and is used much more extensively in Jazz.

* * *

In the next chapter we will look at how Intervals and Inversions are created.

6. Intervals and Inversions

Intervals are a way of stating the distances between two pitches. Although it is the increase or decrease in the rate of vibration that is responsible for changes in pitch, psychologically pitch is generally perceived as higher or lower sounds. When naming Intervals we use two categories: Perfect Intervals, and Major or Minor Intervals. Both of these categories can be lowered in pitch, diminished, or raised in pitch, augmented. Note: Intervals are always calculated from the *major* scale of the *lower* pitch.

Below is an examination of all the Intervals within an Octave.
(example octave begins on C)

1-1	Perfect	Unison	C-C
1-2	Minor	2nd	C-Db
1-3	Major	2nd	C-D
1-4	Minor	3rd	C-Eb
1-5	Major	3rd	C-E
1-6	Perfect	4th	C-F
1-7	Augmented	4th	C-F#
1-8	Perfect	5th	C-G
1-9	Minor	6th	C-Ab
1-10	Major	6th	C-A
1-11	Minor	7th	C-Bb
1-12	Major	7th	C-B
1-13	Perfect	Octave	C-C

Note: An Augmented 4th is the same as a Diminished 5th. It is exactly equidistant between the upper and lower Tonics of the Octave. This Interval is also referred to as the Tritone.

Perfect Intervals include the Unison, 4th, 5th and octave (unison is the same pitch coming from two different sources). So in the key of C Major, two C notes played together creates a Perfect Unison, C-F is a Perfect 4th, C-G is a Perfect 5th, and C-C an octave higher is a Perfect Octave. If we were to raise the upper pitch of a perfect interval by a half-step we would create an augmented interval; C-G# is an Augmented 5th. If we were to lower the upper pitch by a half-step we would create a Diminished Interval, C-Fb is a Diminished 4th.

Major or Minor Intervals include the 2nd, 3rd, 6th, and 7th. In the major scale these are all major intervals. In the key of C Major, C-D is a Major 2nd, C-E is a Major 3rd, C-A is a Major 6th, C-B is a Major 7th. Lowering any of the upper pitches would create a minor interval: C-Db is a Minor 2nd, C-Eb is a Minor 3rd, C-Ab is a Minor 6th, C-Bb is a Minor

7th. Further lowering a major or minor interval creates a diminished interval: C-Ebb is a Diminished 3rd, C-A# is an Augmented 6th.

Augmented and Diminished Intervals are much less common than Perfect, Major, or Minor Intervals. This is due to the fact that all augmented and diminished intervals, with the exception of the Augmented 4th/Diminished 5th (both create the same interval), can be respelled using a perfect, major, or minor interval. For example, an Augmented 2nd such as C-D#, can be labeled a Minor 3rd by naming it C-Eb.

The Major Scale contains the following Intervals: (example in the key of C Major)

Perfect	Unison	C
Major	2nd	D
Major	3rd	E
Perfect	4th	F
Perfect	5th	G
Major	6th	A
Major	7th	B
Perfect	Octave	C

The Minor Scale contains the following Intervals: (example in the key of C Minor)

Perfect	Unison	C
Major	2nd	D
Minor	3rd	Eb
Perfect	4th	F
Perfect	5th	G
Minor	6th	Ab
Minor	7th	Bb
Perfect	Octave	C

The Blues Scale contains the following Intervals: (example in the key of C Blues)

Perfect	Unison	C
Minor	3rd	Eb
Perfect	4th	F
Diminished	5th	Gb
Perfect	5th	G
Minor	7th	Bb
Perfect	Octave	C

Note: Minor intervals can be labeled with the word "minor" followed by the numerical width of the interval, such as minor 3rd, or the word "minor" can be replaced with a flat sign, such as b3rd.

Intervals that are greater than an Octave, such as a 9th, 11th or 13th, which are commonly used in the naming of upper extensions of chords, are really just the 2nd, 4th, and 6th degrees of the scale, voiced an octave higher. So a flat 9th would be the same as a minor 2nd. To determine the name of any of these intervals that are greater than an octave, simply add 7 to what the size of the interval would have been if the pitches were in the same octave. So C-F an Octave higher would be calculated as a Perfect 4th plus 7, which becomes a Perfect 11th. You can do the same process in reverse to determine the actual scale tone of an expanded interval. For example, to find the actual scale degree of a major 13th interval, simply subtract 7, and we quickly find that it is the 6th degree of the scale.

How to hear Intervals better

It is very helpful for songwriters to become familiar with the sounds of different intervals. The best way to do this is to memorize the opening intervals from common tunes. Below is both an ascending and descending interval chart to get you started, but you should expand on this and build a list of your own from tunes that are familiar to you. The first two notes of any of the following tunes will produce the indicated intervals.

Ascending Intervals

Minor	2nd	Theme from the Pink Panther, Theme from Jaws
Major	2nd	Rudolph the Red Nosed Reindeer, Happy Birthday
Minor	3rd	Georgia On My Mind
Major	3rd	Blister in the Sun, Oh When the Saints
Perfect	4th	Amazing Grace, Here Comes the Bride
Augmented	4th	Theme from the Simpson
Perfect	5th	Twinkle Twinkle Little Star, Theme from Star War
Minor	6th	Theme from Love Story
Major	6th	My Bonnie lies Over the Ocean
Minor	7th	Theme from the original Star Trek
Major	7th	Theme from Fantasy Island
Perfect	Octave	Somewhere Over the Rainbow

Descending Intervals

Minor	2nd	Joy to the World
Major	2nd	Yesterday (Beatles), Three Blind Mice
Minor	3rd	Star Spangled Banner, Frosty the Snowman, Hey Jude
Major	3rd	Beethoven's 5th, Swing Low Sweet Chariot
Perfect	4th	Oh Come All Ye Faithful, Born Free
Augmented	4th	Intro to Purple Haze
Perfect	5th	Theme from the Flintstones, Feelings
Minor	6th	Theme from Love Story
Major	6th	Nobody Knows the Trouble I've Seen
Minor	7th	Watermelon Man (Herbie Handcock)
Major	7th	I Love You (Cole Porter)
Perfect	Octave	There's No Business Like Show Business

Memorizing several Intervals at once can also be very helpful. An easy one to learn is the three note NBC theme, which has intervals of a Root-Major 6th-Perfect 4th. Using mnemonic methods like these to learn intervals really makes the whole process a lot of fun. I suggest practicing these on a daily basis until you can recall any interval at will.

Inversions

When the upper pitch of an interval is dropped down an octave, so that is now appears below what had been the lower pitch, we get what is called an Inversion. This can also occur the other way around, by raising the lower pitch up an Octave, voicing it above what had been the higher pitch. When intervals flip around like this, major/minor, and diminished/augmented intervals will always will become an opposite interval types, and perfect intervals will remain perfect, as depicted in the chart below.

Perfect	Unison	remains	Perfect	Unison
Minor	2nd	becomes	Major	7th
Major	2nd	becomes	Minor	7th
Minor	3rd	becomes	Major	6th
Major	3rd	becomes	Minor	6th
Perfect	4th	becomes	Perfect	5th
Augmented	4th	becomes	Diminished	5th
Perfect	5th	becomes	Perfect	4th
Minor	6th	becomes	Major	3rd
Major	6th	becomes	Minor	3rd
Minor	7th	becomes	Major	2nd
Major	7th	becomes	Minor	2nd
Perfect	Octave	remains	Perfect	Octave

Notice how major intervals become minor intervals when Inverted, and vice versa.

Also notice that Unisons, Octaves, and Tritones maintain the same Intervals when Inverted. (Augmented 4th/Diminished 5th are the exact same distance apart).

* * *

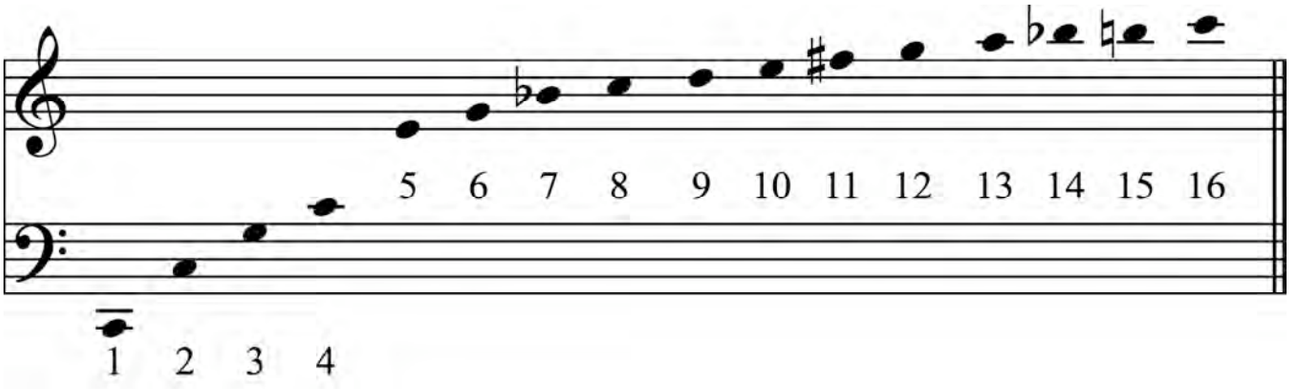
In the next chapter we will look at the natural pull each of these intervals has toward other notes, and how utilizing this can help give momentum to your melodies.

7. Tendency Tones

A scale tone has a mind of its own. There is a tendency for each of the pitches of a scale to move in certain directions towards other pitches. Some pitches within a scale will sound very stable, while others will sound unstable, and seem to have an inherent need to resolve towards other more stable pitches. This has to do with the Harmonic Series.

Every pitch will create a Harmonic Series of 16 Overtones, the first of which is referred to as the Fundamental. These will be subdivisions within the vibration of the initial pitch. The initial pitch is called the Fundamental. It is the strengths and weaknesses in the volume of these overtones that causes instruments playing the same exact pitch to sound completely different. Overtones are responsible for the instrument's Timbre. Below is a diagram of the Overtone Series based off of a low C pitch.

Ex: 7-1



Many of the lower Overtones can be clearly heard when singing in a cavernous chamber such as a cathedral, or by pressing down a key on a piano that has the top open, and listening for the overtones resonating under the lid. Overtones will be significantly quieter than the fundamental pitch, yet it is the summative value of the 16 overtones that will make a pitch sound like it came from a piano, rather than a guitar, saxophone, or some other instrument.

The closer an overtone is to the fundamental pitch the more stable it will sound, and the further away it is the more it will seem to want to resolve in a certain direction to a more stable overtone, or to the fundamental. It is important to be aware of the natural tendencies within each pitch, so that you can decide whether to continue a melody in an direction that is anticipated, creating a sense of resolution, or to move it in an unexpected direction, creating an interesting change. Each note within a melody will either satisfy a listener's expectations, or create a surprise. It is your intuitive and intellectual understanding of these tone tendencies that can masterfully weave these little satisfactions and surprises into beautiful melodies.

Tendency Tones in Major Keys

Scale Degree 1: Tonic.
This is the most stable pitch in the scale. It will feel like your home pitch. Ultimately all other pitches will gravitate towards the Tonic. Depending on which of the 12 keys you are writing in, you will have 12 possible Roots to base your melody on. The Root of the Key is the most stable pitch.

Scale Degree 2: Supertonic.
This is an unstable tone, which has a natural pull towards either 1 or 3. When played or sung immediately after the tonic, you can feel that it is not a good pitch on which to end a song. There is an unstable tension that is crying out for resolution in one direction or the other. It also sometimes has a pull towards 5.

Scale Degree 3: Mediant.
This is the middle pitch between the two most stable pitches, 1 and 5, which is where it gets the name Mediant. It has a tendency to move towards either 1 or 5.

Scale Degree 4: Subdominant.
The 4th degree has a very strong pull back to the 3rd because the 3rd is only a half-step away, and a very stable pitch. The 4th, along with the 7th, are the two most unstable pitches within the major scale. The 4th has a suspended sound, and wants to resolve down by a half-step. It is called the Subdominant because the 4th is actually an inversion of the 5th, which is the called the Dominant.

A very interesting thing about the 4th is that it is the only pitch in the major scale that does not exist in the Harmonic Series. This represents a clash between human creativity and natural acoustics, but it could also be one of the things that makes our system of music so unique and interesting.

Scale Degree 5: Dominant.
This is the second most stable tone in the scale, which explains why it has been given the name Dominant. The 5th degree of the scale has a strong tendency to resolve to the Root.

Scale Degree 6: Submediant.
The 6th has a tendency to resolve down a whole-step towards the 5th, or up a whole-step to the 7th and then to the Octave. It is called the Submediant because the 6th is actually an inversion of the 3rd.

Scale Degree 7: Leading Tone.
The 7th has a strong pull up towards the octave, which is essentially the tonic, or root. The 7th, along with the 4th, are the most unstable pitches in the major scale. It is called the Leading Tone because it has a strong tendency to lead up to the Tonic.

Summary of Major Key Tendency Tones

Order of stability:

Most Stable 1 5 3 2 6 7 4 Most Unstable

Most Stable	1	5	
Medium	2	3	6
Most Unstable	4	7	

Tendency to Resolve

Scale Tone	Resolution
1	1 is at home
2	1, 3 or 5
3	1 or 5
4	3
5	1
6	5 or 7 then 1
7	1

Major Pentatonic Scale Tendency Tones

Major Pentatonic Scales have the same tone tendencies as the Major Scale, only the 4th and 7th scale degrees will be missing.

Major Blues Scale Tendency Tones

Major Blues Scales have the same tone tendencies as the Major Pentatonic Scale, only the Blues Note (the Diminished 3rd) is added, which is the most unstable pitch of the scale. The flat 3rd of the Major Blues Scale resolves either down a half-step to the Major 2nd, or up a half-step to the major 3rd.

Tendency Tones in Minor keys

The difference between minor and major keys is that in minor keys the 3rd, 6th, and 7th, are lowered. This creates a weaker pull between 4-b3 and between b7-1 than we had in major keys between 4-3 and 7-1, but it creates a much stronger pull between b6-5 than between 6-5 in major keys. The flat 7th is much closer to the Fundamental in the Harmonic Series than the natural 7th, and is therefore much more stable within the Minor Scale. In addition to the Perfect 4th, neither the flat 3rd nor the flat 6th occur in the Harmonic Series at all, which makes them very unstable pitches. However, the flat 3rd becomes an exception. Even though this pitch does not exist in the Harmonic Series, it is

the most defining pitch of the minor scale sound, and is therefore a stable tone in minor keys.

Summary of Minor Key Tendency Tones

Order of stability:

Most Stable 1 5 b3 2 b7 b6 4 Most Unstable

Most Stable	1	5	
Medium	2	b3	
Most Unstable	4	b7	b6

Tendency to Resolve

Scale Tone	Resolution
1	1 is at home
2	1, b3 or 5
b3	1 or 5
4	b3
5	1
b6	5
b7	1

The fact that in minor keys the Perfect 4th, Minor 3rd, and Minor 6th do not appear in the Harmonic Series may be the reason why the minor scale tends to sound sad to many people. Having 3 pitches from outside of the natural Harmonic Series could be speculatively thought of as the disharmony that is incurred when man is out of synchronicity with the flow of nature.

In Harmonic Minor and Melodic Minor scales, it is only the 6th and 7th degrees that change, becoming like the natural 6th or 7th of the Major Scale. Within in these scales, simply follow the tendency tones of the of the natural 6th or 7th from the major scale.

Minor Pentatonic Tendency Tones

Minor Pentatonic Scales have the same tone tendencies as the Minor Scale, only the 2nd and 6th scale degrees will be missing.

Blues Scale Tendency Tones

Blues Scales have the same tone tendencies as the Minor Pentatonic Scale, only the Blues Note (Diminished 5th) is added, which is the most unstable pitch of the scale. The flat 5th of the Blues Scale resolves either down a half-step to the Perfect 4th, or up a half-step to the Perfect 5th.

Tension and Resolution

Tension and Resolution, which often coincide with a listener's sense of Surprise and Expectation, respectively, are two foundational concepts to always be aware of when writing a song. The balancing act between the two is what great songs are often all about.

Once expectations are set up within a melody, there will be a need to resolve some of them, giving the listener a sense of fulfillment. Most of us have at one time or another heard melodies that sound very dissonant and never seem to resolve to a stable pitch. After listening to music like this for a while, it can become a very unsatisfying experience, due to the fact that none of the melodic expectations are being fulfilled. If you set up certain expectations within a melody, and never fulfill any of them, it will not keep people interested, and they will naturally begin to tune it out, because it won't make musical sense to them. Fulfilling expectations will help your melody make sense, and be comprehensible to a listener. It will also allow the listener to feel psychologically connected to the music, because he or she felt where the pitches were expected to go, and they went there.

Conversely, when melodic expectations are always fulfilled exactly as a listener might expect, the melody can become very boring. This is often the case when adults listen to simple nursery rhymes. We can sense exactly where the melody is leading, and it goes there every time. Adults have a more sophisticated intuitive understanding of music than children do, and as a result, they need to hear something new and fresh, something that surprises them some of the time, in order for them to stay interested. Unstable pitches can keep a melody moving ahead, and captivate a listener's interest by taking a melody in a different direction than the expected resolutions. Varying stable pitches with unstable ones is what propels a melody forward, gives it a sense of direction, and creates a sense of finality where needed.

Most melodies are usually first created intuitively, using the inner ear and creative process. One can sense when pitches seem unstable, and then decide whether to resolve them in expected directions, or to surprise the listener with an unexpected pitch. But one of the most useful times to apply the knowledge of tendency tones is when something sounds wrong within a melody. It will sometimes be an unstable pitch needing to resolve to a more stable one, in order to coincide with the closure of a section, or the need for more unstable pitches to keep a melody moving along.

This leads into the concept of "open or closed melodic phrases." A melody that ends on an unstable pitch will keep the song section open; there will be a need for another phrase to come after it. A melodic phrase that ends on a stable pitch will give the section a sense of finality. Ending on a stable pitch in the middle of a section can stop the motion of a melody at the wrong place, and ending on an unstable pitch in the last phrase of a section can keep it sounding open when the rest of the musical components are trying to stop. This will be covered in more detail when we look at techniques for developing melodies.

Writing Melodies using Tendency Tones

When applying these concepts to songwriting, we are really extracting and manipulating minute aspects of a melody. Most of your writing will probably be done within the larger context of rhythms, chords, bass lines, grooves, lyrics, and other components that make up a song. But just as a pro baseball player might take time to work on the fine points of his or her swing, or a gymnast might take a few weeks to work on nothing but a slight turn of the hips during a handspring, focusing on melody without any other aspects of music can tremendously refine your inner ear and creative awareness.

As an exercise, pick a key, and practice singing the pitches of one of the 6 primary scales that are commonly used in popular songwriting.

Six most common scales used in popular songwriting:

1) Major Scale
2) Major Pentatonic Scale
3) Major Blues Scales
4) Minor Scale
5) Minor Pentatonic Scale
6) Blues Scale

Step 1: Make sure that you have chosen an octave and a key that is within your comfortable vocal range, then sing the scale to get the sound of it in your head.

Step 2: Practice each of the tendency tones for that scale, resolving each pitch to the expected pitch of resolution.

Step 3: Practice singing each of the pitches of the scale and resolving them in an unexpected direction, or to an unstable pitch. You will create some very interesting melodic combinations this way, but you should also start to notice that you are going against a natural pull in another direction.

Step 5: Create short melodies, ending your phrases on various pitches of the scale. You should feel very distinctly that some of the pitches are too unstable to act as ending points. They will leave the phrase sounding open, propelling the melody into another

phrase. Other ending pitches will sound very closed, giving the melody a sense of finality.

With a little practice you should be able to feel the resolved or unresolved quality of any pitch. It is very important that you sing these pitches, and not just play them on an instrument. The voice is truly your best way to connect to your inner ear, which will help you express music that you create inside your head and your heart much more effectively.

Practice this exercise in a different key each day; it will open up a whole new reality within the world of pitch for you.

Once you get a feel for tendency tones, you can choose more effectively when to go where the pitches naturally want to go, and when to take them into a direction guided by your own creativity. There will be a time and a place for both within any melody.

Keep in mind that when chords are added as a harmonic background for your melodies, an unstable pitch can temporarily become very stable if sung against a chord that has that pitch in it. The main effect of a melody will come from the pitches in relation to the scale that they are derived from, but adding chords will open up a second level of complexity to your writing.

PART 3: SINGLE MELODIES

The catchiest hooks and the most memorable melodies all have an aspect of simplicity to them. Yet crafting a simple melody into an infectious hook is truly both a science and an art. We will now begin our melodic adventure into exciting new territory, where we cover the techniques for developing single melodies into monster hooks, and also provide you with an endless array of tools for the journey to create, transform, develop, and improve your melodies. After learning these methods you will never run out of melodic ideas again.

One of the biggest mistakes beginning songwriters make is to take the first good melody that comes to mind and hold on to it, unaltered, for the entire development of a song. It may be that this first melody is the best possible one for your next big hit. But by applying the following tools and techniques to your melodies two things will happen. One, you will become a master at creating a myriad of different variations for any melody that you write, which will allow you to weave together the absolute best ones into your songs. Two, about seventy percent of the time you will most likely find that a variation on your original melodies will work better for your song than the one from which you started. This will be a new melody you would have never discovered had you not put in a little time and effort experimenting. And if the melody you are working with is going to be the title, or the main hook of the song, you absolutely need to spend some time experimenting to make sure that you have found the catchiest way to set that phrase.

Discovery lies in the experimentation. A great melody can be thought of as a chunk of bright shiny gold buried in a mountain of dirt. It is through the digging that the gold is discovered. The following sections will provide you with the most amazing picks and shovels to help you get to the gold faster.

8. Rhythm of Single Melodies

The components of melody can be divided into rhythm and pitch. This section will deal with techniques that apply only to the rhythm of single melodies. The next section will deal with the pitch aspect of single melodies, and the one after that will deal with techniques that relate to both pitch and rhythm at the same time. Learn these tools one at a time, and when you put them all together at the end you will have an arsenal of songwriting weapons fit for a Samurai warrior.

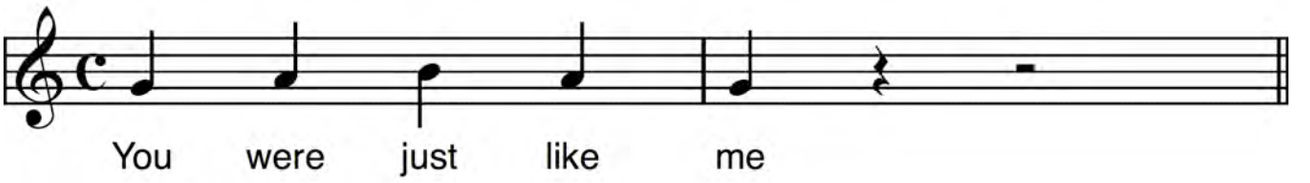
We will begin with a five-note phrase, as an example. The one below follows the four general rules that make musical phrases sound like melodies: it is a short phrase, has only a few notes, has a limited number of leaps in pitch, and it stays within a range that is easy to sing.

Let's imagine that while you were practicing, writing, or just going through your daily activities, that you came up with this simple five-note melodic phrase. You either thought of five pitches and put words to them, or came up with five words and set them to pitches afterwards. For now, we will match the words and pitches one-to-one, but be aware that there are many other possible ways to set lyrics to melodies.

Moreover, let's imagine that the melody seemed to mean something to you that you felt could be a worthwhile topic to write about. This is often the determining factor for throwing away or keeping a melody; does it seem to have an interesting emotional quality to it; does it encapsulate a concept that is worth writing about? Is it about something? An emotional state, or a meaningful concept can be evoked from a purely musical phrase, from the lyrics alone, or from both in combination.

So here is that awe-inspiring phrase that came to you while diligently practicing, furiously writing, or walking to the store to get a chocolate covered doughnut. It came with melody, words, emotion, and a concept that you felt could be the basis for a new song. Let's further imagine that you also thought this phrase could be the title, or the hook of the song, so it was worth spending some time experimenting with to find the best possible way to sing it.

Ex: 8-1



(All examples will be in 4/4 or common time, unless otherwise indicated)

> A note about replaceable lyrics: When your mental melody-maker is really flowing and coming up with great melodies, applying random words to the pitches as

placeholders can be a very effective way to write. You can change the words later when you are in a more lyrical mindset. These are typically referred to as Throw-Words, because they are meant to be thrown away when better replacements are found. Writing music, or writing lyrics, each utilize very different parts of the brain, and it is not always easy to give full focus to the development and editing of both at the same time. When you are working primarily on generating melodies, feel free to use random words, knowing that once you have created strong melodies that you will be replacing the words with more developed lyrics.

Conversely, if the lyrics are really flowing, you can add generic melodies to them. You could even scale down the melodies to just rhythms, or have no melodies at all. Then later, when you are in more of a musical mindset, you could write melodies for your words, or replace the Throw-Melodies with better melodic phrases.

A note about chords: The following techniques can be practiced with or without chords in the background. For simplicity sake, virtually all of the examples have been written in the key of C. No chords have been added, in order to isolate the often-elusive techniques of melody writing. If you are going to add chords to these examples, select chords from the key of C (Triads in C Major: C Dm Em F G Am Bdim). Harmony-melody relationships will be covered in depth in a later section, which will add another level of sophistication to your writing.kn

Note on Reading Music: If you do read standard music notation, it should not be a problem. Don't be too concerned with reading the examples below note-for-note. The examples are kept very simple, and are not necessarily meant to be read in a precise manner. They are simply presented as a visual representation of the concepts being discussed. Applying these techniques to your own melodies should be done in a flexible manner, employing your inner ear and creativity, while using the concepts as tools to make your ideas more musical or interesting.

Techniques Related to Rhythm

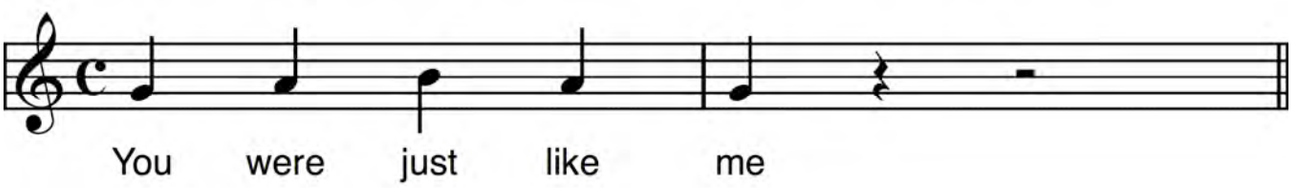
- **Phrase Start Point**
- **Note Durations**
- **Long Notes**
- **Rhythmic Displacement**
- **Phrase Endings**
- **Syncopation**
- **Rhythmic Variety**
- **Phrase Length**

Phrase Start Point

The place where you start your melody within the measures of music will make an enormous difference in the way that it will sound. Pitches, and the words that are attached to them, will be accented on different beats, and against different chords, when you change the starting point of a phrase. Although there can be an infinite number of potential starting points, for practical purposes we can divide them into 3 different categories:

1. Phrases that start *ON* the 1st beat of a measure (the downbeat)

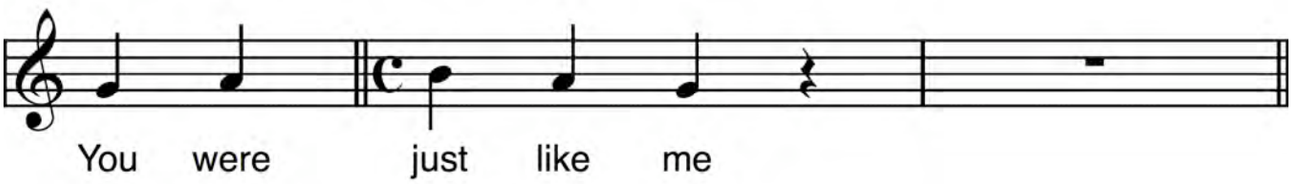
Ex: 8-2



In this example the word "You" is placed on the downbeat.

2. Phrases that start *BEFORE* the 1st beat of a measure

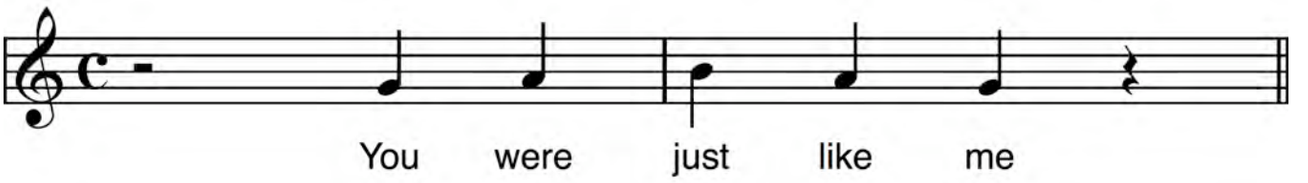
Ex: 8-3



In this example the word "Just" is placed on the downbeat, with the words "You were" leading into it.

3. Phrases that start *AFTER* the 1st beat of a measure

Ex: 8-4



In this example the first word of the phrase "You" doesn't come in until beat 3.

Of course, there are many possible variations as to how far before or after the first beat one could begin a phrase. But experimenting with just these three categories will show how drastically different a phrase can sound when the starting point is altered. This is even more noticeable when chords are added, because when the phrase is shifted

backwards or forwards, some of the notes of the melody will be set against new chord tones.

This will also be one of the most important techniques to employ when attempting to create unique sounding song sections. When a verse and chorus sound too much alike, the very first thing that I ask is "do both sections start their phrases on the some beat?" If they do, changing the start point of one section or the other can often produce amazing results.

Lyrics are another important consideration here. The word that lands on the downbeat of a measure will have the strongest accent. For this reason, it is important to give consideration to which word has the most important meaning for the phrase. It is never a good idea to put connecting words like "the" or "and" on the downbeat. This will almost always sound funny.

Exercise: Practice singing a short melody of your own to a repeated chord progression. Vary the phrase start point Before-On-After the downbeat. Listen to how differently the phrase can sound, depending on where it begins. Also notice how you may need to adjust some of the pitches so that they fit the new chords that they are set against. Try varying the distance from the downbeat for both the Before and After methods. Notice how there are many possibilities here. Also notice how placing different words on the downbeat can sometimes drastically change the meaning of the phrase.

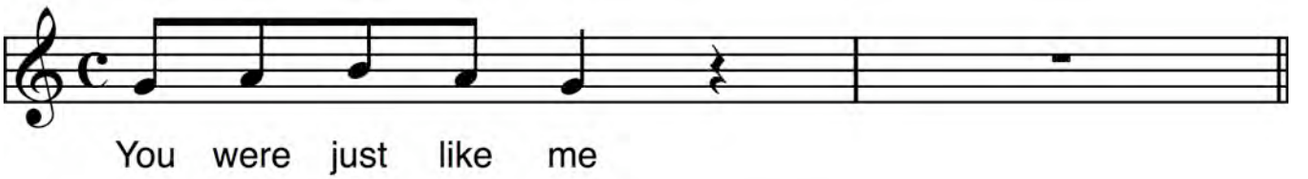
Note Durations

Phrases can either be stretched out, or compressed in time, by changing the value of the note durations. Stretching out a phrase in this manner is called Rhythmic Augmentation; compressing it is called Rhythmic Diminution. These techniques are also sometimes called Rhythmic Expansion and Contraction. But using the more colloquial terms of Long and Short Durations provides us with some less technical sounding labels.

Stretching out a phrase with longer note duration can create an ambient effect. This is often used in choruses, as a way to differentiate them from a more speech like story telling in the verses. Shortening the durations of phrases is often used as a way to generate energy and excitement.

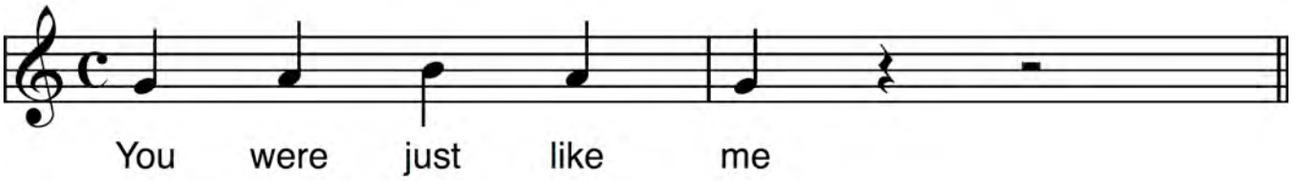
Short Durations (Rhythmic Diminution)

Ex: 8-5



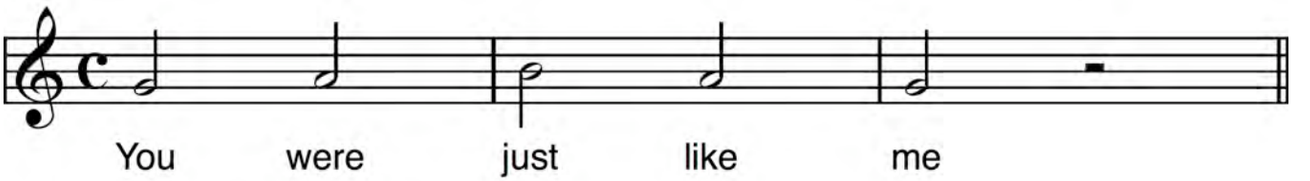
Medium Durations

Ex: 8-6



Long Durations (Rhythmic Augmentation)

Ex: 8-7



There will always be many possible variations of phrase length, but experimenting these three categories will begin to bring to light the wide variety of possibilities that one simple phrase can have to offer.

Exercise: Take several melodies of your own and practice expanding and compressing them in the above manner, into short, medium, and long phrases. Notice if you like any of the variations better than the originals. Also, look for places within your songs where changing the note durations of phrases can be helpful.

Mixing Phrase Start Point and Note Durations

If we experiment with all the combinations of the three different types of Phrase Durations, and the three different types of Phrase Starting Points, we will have a total of nine possibilities, as depicted in the matrix below. This provides a great tool for quickly constructing very different sounding variations on an original melody.

Starting Point/Duration Matrix

	Before	On	After
Short			
Medium			
Long			

Exercise: Experiment with a melody of your own. Sing it to a chord progression and try stretching out the notes really long, then medium, then sing them very quickly. Next try shifting the Start Point Before-On-After the downbeat. Then sing each of the three Duration variations with each of the three Start Point variations. Notice that there are many more subtle adjustments of phrasing possible, in addition to the nine possibilities in the matrix. This is where your creativity comes in. These tools tell you what parameters to experiment with, but the creative possibilities are endless.

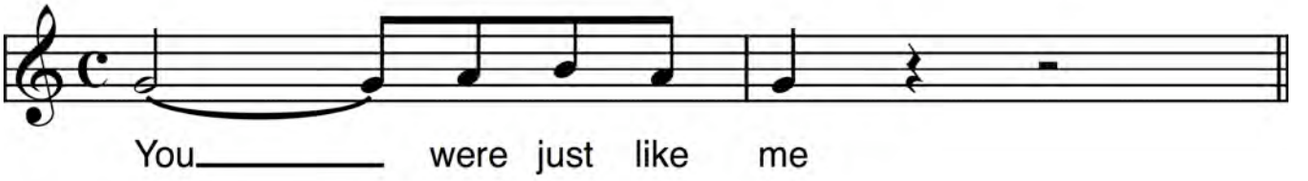
Long Notes

Most of the time, the different notes within a melody will vary in length from one to the next, in contrast to the examples above in which all the notes have the same duration. Varying note durations will add character to a melody, and there will be many possible ways to apply this type of rhythmic variety. In this section we will focus on just one, using Long Notes. Holding out certain notes longer than the others can create a strikingly dramatic effect.

Using our simple 5-note example, by holding out just one note in a melody, we can create 5 different possible variations.

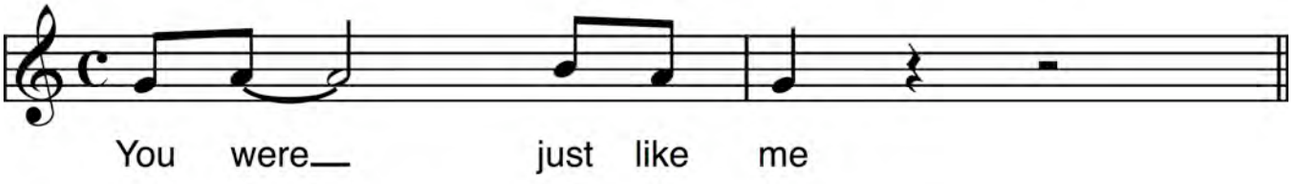
First note is Long

Ex: 8-8



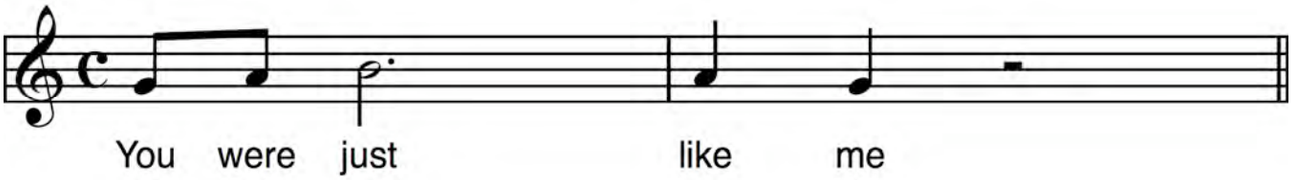
Second note is Long

Ex: 8-9



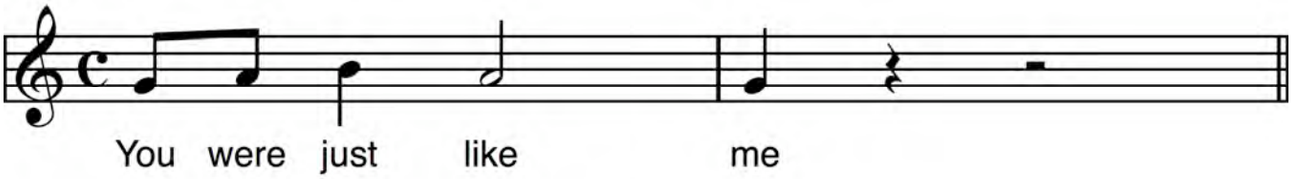
Third note is Long

Ex: 8-10



Forth note is Long

Ex: 8-11



Fifth note is Long

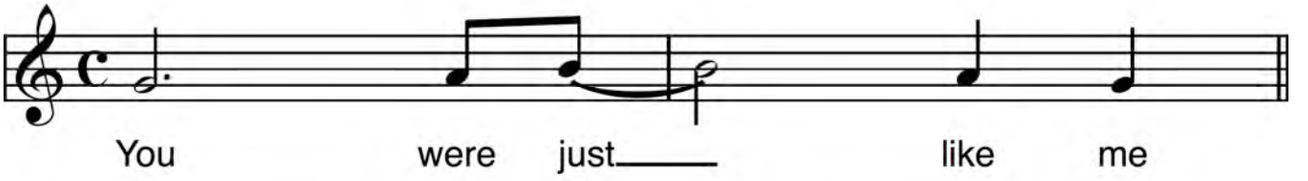
Ex: 8-12

When considering **how long** a note is to be held out for, there will many additional possibilities. Sometimes just holding it a little longer than the other notes will produce good results within your melody. At other times, holding it out for a long time, while singing the other notes quickly, will create the desired effect.

Additionally, several pitches can be held out within a melody, while the others occur quickly. Below is an example of holding two pitches longer, while the others have shorter durations.

First and Third notes are Long

Ex: 8-13



The creative possibilities are endless when experimenting with which pitches will be held out and which ones will occur quickly, how long a pitch is held out for, and how quickly

the others occur. But by simply trying a few different variations, in conjunction with your musical intuition, it will often produce one variation that sounds better then the rest.

Beware Mad Scientists!

Now that you have seen how many possibilities can emerge from these techniques, I would like to make a point before we move further along. You don't want to get caught up being the meticulous musical scientist, attempting to try every single possible combination of techniques for every phrase that you write. That is not practical. It will suck you right out of the creative process faster than a high-speed particle generator on acid, and get you stuck like a nowhere man in some meaningless intellectual wasteland. When utilizing any of the techniques in this book, you should experiment with a handful of variations for each until you find something a little better, or sometimes a lot better, than what you started with, and then move on to the next line. You can always cycle through the techniques again during the next edit of your song.

When I apply these concepts, about 30% of the time I stick with the first idea I started with. But the other 70% of the time I always find something better. This process can make the difference between a hit song, and a song that doesn't grab anybody's interest at all, and doesn't stick in anyone's memory. So taking the extra step to do a little experimentation before you settle on a melody is one of the main differences between average and great songwriters.

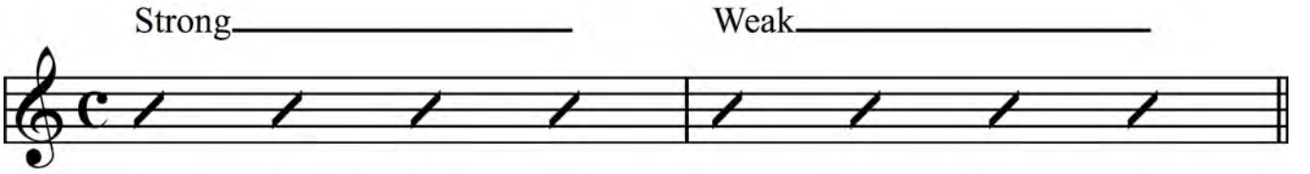
Exercise: Practice holding out different pitches within the melodies that you have created. Notice which ones you like best. Take the ones you like and vary some of the other parameters discussed so far in this section. This process of going back and forth, making adjustments and modifications between the different parameters, is the way to eventually distill a perfect melody for your song.

Rhythmic Displacement

Rhythmic Displacement deals with placing a melodic phrase Out-of-Sync with the Metric Phrase. When a steady beat is broken up into evenly divided groups, as a result of regularly recurring accents, we then have Meter. This gives us our time signatures, such as 2/4, 3/4, 4/4, and 6/8. The steady pulse, as a result of this, will now be divided up into measures (bars). An evenly divided group of measures is referred to as Metric Phrase. Within any Metric Phrase, there will always be strong and weak accents from measure to measure.

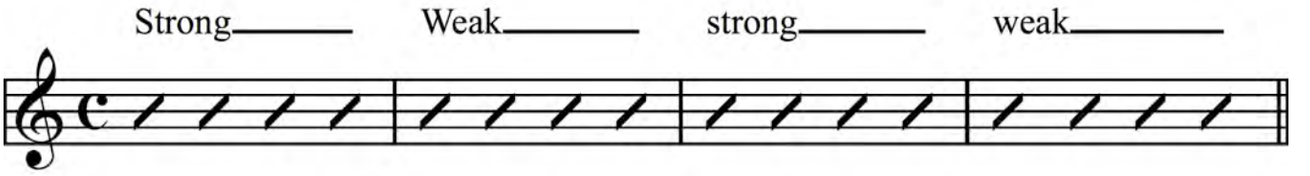
For instance, in a two bar phrase the first bar will be strong and the second weak.

Ex: 8-14



A four bar phrase will follow the pattern of Strong-Weak-strong-weak, where the lower case words are slightly weaker than the upper case words.

Ex: 8-15

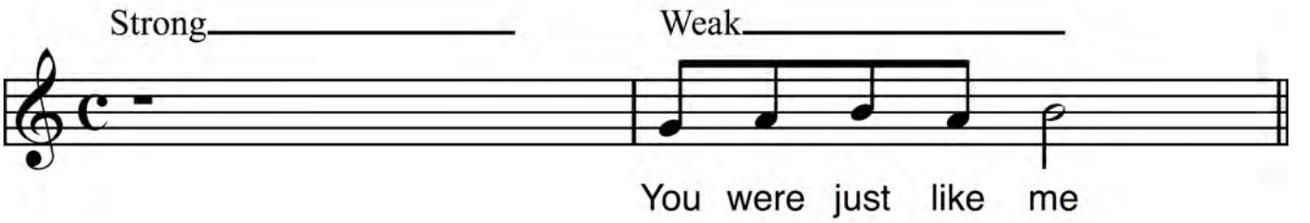


As the number of evenly divided measures gets longer, and grows into a song section, in addition to strong and weak measures within a Metric Phrase, at the micro level, we will now have strong and weak Metric Phrases (Lines), at the macro level. A section of eight measures will either be divided into four groups of two Strong-Weak measures, or two groups of four Strong-Weak-strong-weak measures, depending on whether the melodies set against it are closer to two-bar melodic phrases, or four-bar melodic phrases, respectively. This will be dealt with more extensively when we look at multiple melodies within song sections.

Whether melodic phrases begin Before-On-After the downbeat of the metric phrases (Lines), the melody and the meter are typically In-Sync with each other. Most of the notes of the melodic phrases will be centered around the strong measures of the metric phrases, and will tend to rest on the weak measures of the metric phrases.

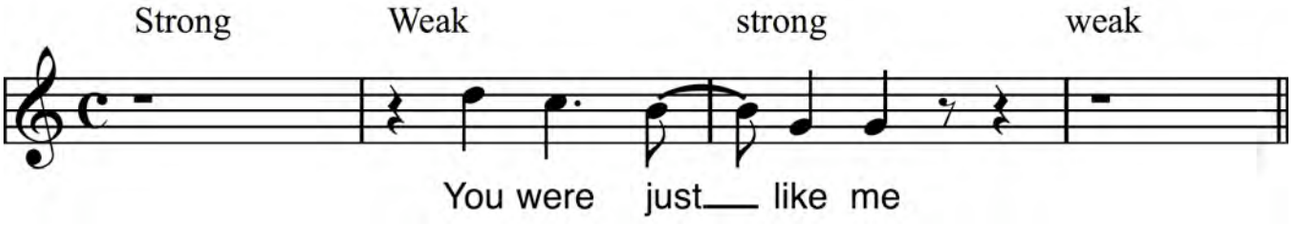
Rhythmic Displacement deals with setting melodic phrases Out-of-Sync with the Metric Phrases, by placing them primarily on the weak measures, and resting on the strong ones, as in the example below.

Ex: 8-16



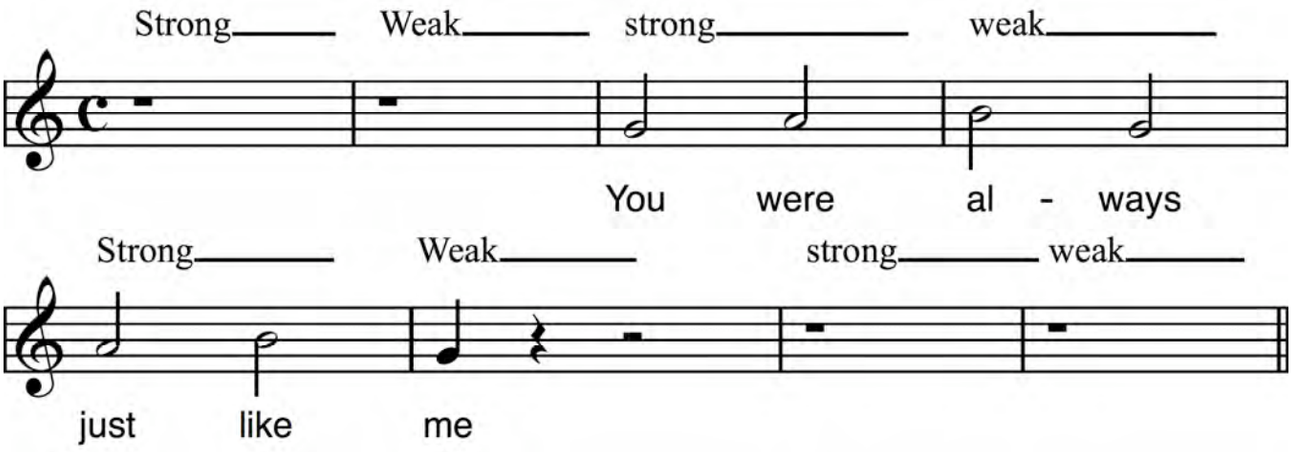
Here is a four-measure example that contains a two-measure melody.

Ex: 8-17



Below is a four-measure example that begins on measure 3, and contains a four-measure melody.

Ex: 8-18



A four-measure metric phrase, such as the ones above, can each be divided in half, with the first two measures being strong, and the second two weak. Therefore, rhythmic displacement can occur by beginning a four-bar phrase in measure three, which is a strong measure, in addition to beginning it on the measures labeled as weak. This example shows how out-of sync phrasing can completely turn the rhythm around within a song.

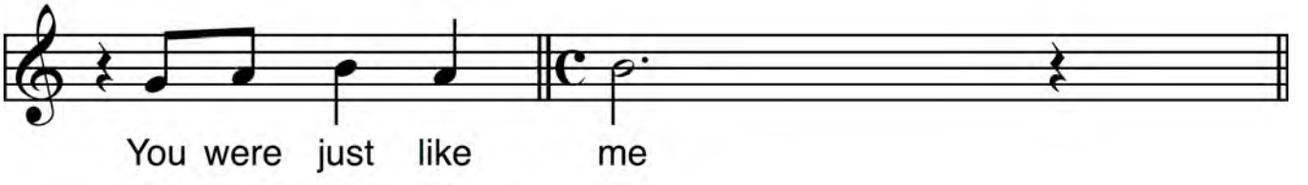
This type of phrasing is found more commonly in World Music from other cultures. But it can also add a lot of character to popular songwriting in our culture. One practical use for Rhythmic Displacement would be to vary In-Sync and Out-of-Sync phrasing between sections of a song, such as a verse and a chorus. Another, which deals more with the arrangement of the song, would be to have several instruments utilizing various different settings of rhythmic displacement. For example, the drums could set the metric phrasing, the guitar riff could be playing a repeated four-bar phrase that begins on measure two, the vocals could begin a melody on the third measure, and the bass-line could play a repeated two-bar phrase that starts on measure four. Players in modern bands that are thought of by many as amazing musicians, but don't seem to be doing any incredible feats with pitches, such as playing blazingly fast solos, are often employing this type of rhythmic brilliance to their writing and improvisation.

Exercise: Practice singing melodies of your own to either a two-bar or four-bar chord progression. If most of your phrases are centered around the strong measures of the chord progression, as is common in our culture, try applying Rhythmic Displacement. If your melodies are two-bar phrases, try starting them on measure two instead of measure one. If they are four-bar phrases try starting them on measure three instead of measure one. But make sure that you always accent the first measure of the two-bar or four-bar loop, so that you can feel the beginning of the metric phrase. Without a using a full rhythm, or clearly defined song sections, it is easy for the rhythm to get turned around within the measures, and have the place where the melody enters feel like the beginning of the section. You want to make sure that your melodies sound like they are entering in the middle of the metric phrases. If you are already commonly using this type of Rhythmic Displacement with most of your melodies, try shifting the phrasing to the downbeat of the first measure of each line.

Phrase Endings

Rather than focusing on the Start Point of melodic phrases, as we have done in both the section on Phrase Start Points, and the section on Rhythmic Displacement, it can be just as useful to align phrases with their End Points. Phrase endings can be aligned with any beat in a measure, but the most common way of applying this technique is to place the last note of a melodic phrase right on the downbeat. This can work wonders with a title of a song in which you want to emphasize the very last word. For further emphasis, the last word can be held out longer than the others in the phrase. This is often done with song titles in which the last word has the most meaning for the song. However, the phrase ending technique can be applied anywhere within a song, as a way of aligning phrases, and it can be utilized with or without holding out the last note.

Ex: 8-19



Masculine and Feminine Endings

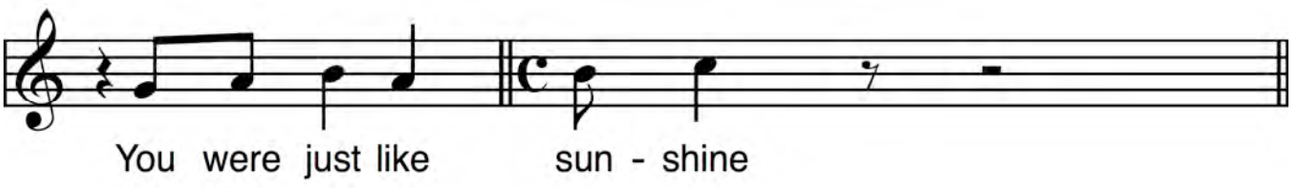
Masculine Endings refer to placing the last note of a melodic phrase right on the beat. Feminine Endings refer to a strong-weak note group, with the strong note ending on the beat, and the weak note landing immediately after, in between beats. This concept corresponds to the strong and weak accent patterns in language that create masculine and feminine word endings. Below are some examples of words that contain masculine and feminine accent patterns.

Masculine Word Endings:	Run	Melody	Guitar	Sing
Feminine Word Endings:	Running	Mellow	Guitarist	Singer

When aligning Feminine Endings with the downbeat, it will be the second to last note, and syllable, which will end on the beat. It is still possible to hold out the last note of a feminine ending, but when using lyrics, this will accent a normally unaccented syllable, which can sound very awkward. So when applying the Phrase Ending technique to feminine endings, you will often have better results with purely instrumental melodies than with lyrics.

Notice in the example below that the last note of the melody lands in-between beats of the meter (on the "and" of 1), and that the word "Sunshine" has a feminine ending (the last syllable has a weak accent), which corresponds well to with the last two notes of the melody.

Ex: 8-20



Exercise: Write a lyric phrase in which you want to emphasize the last word. Align the phrase ending to the downbeat of a song section. If this phrase is meant to be the title, you could simply repeat it four times, with the last word ending on the downbeat of measures 1,3,5, and 7 for instance, or you could vary it with another line that may or may not use the same type of phrase ending. Next, apply this same technique to a phrase in which the last word has a Feminine Ending. Notice that holding out the syllable that has a weak accent might not work so well, but if you keep it short the feminine ending usually works just fine.

Syncopation

Rhythm begins with a steady pulse. Dividing that pulse into groups, by applying regularly recurring accents, creates Meter. Placing notes squarely on each beat of the metric pulse creates a **Straight Feel** to the melody. Placing notes in between the steady beats creates what is called **Syncopation**. A lot of character can be added to a melody when syncopation is applied intermittently. This can also supply direction and momentum, by creating a pushing-ahead type of feeling. If done continuously, this is referred to as going "against-the-beat." The two most common forms of syncopation are Eighth-Note Syncopation, and Sixteenth-Note Syncopation.

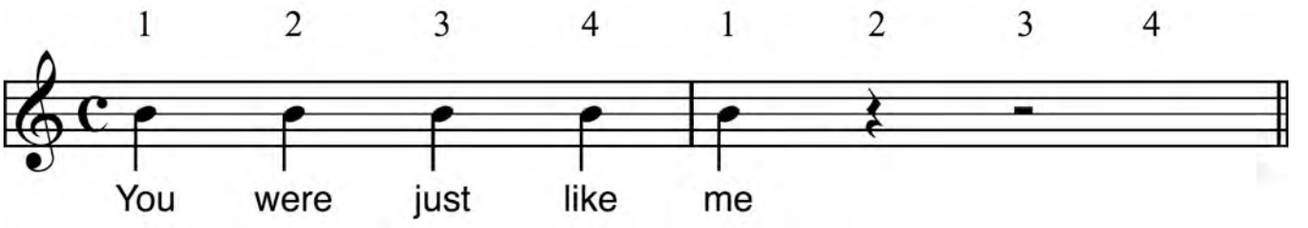
Eighth Note Syncopation

An eighth note feel is counted as: 1-and-2-and-3-and-4-and.

In an eighth note feel, syncopation has to do with placing notes on the "and" of the beats.

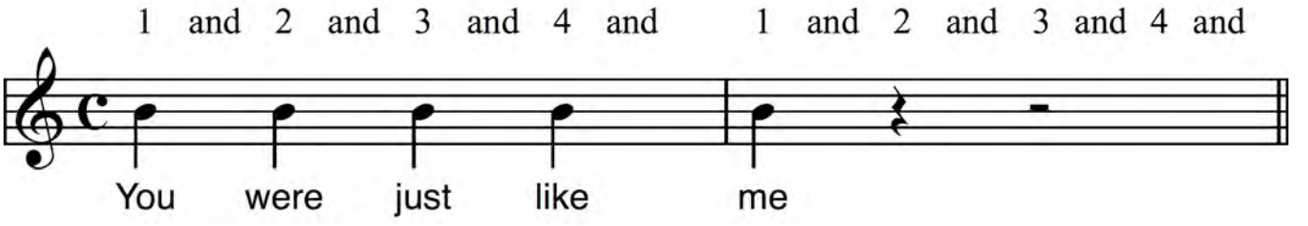
To produce a Straight Quarter Note Feel, tap your foot while counting 1-2-3-4, and sing a note each time your foot hits the floor. Try this with the following melody.

Ex: 8-21



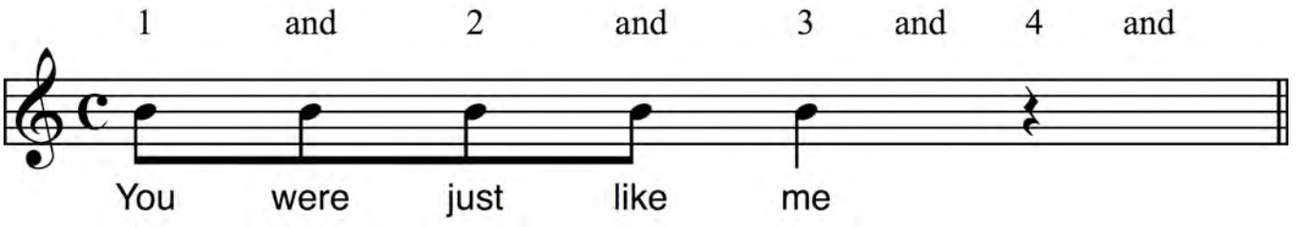
To produce a Straight Eighth Note Feel, tap your foot while counting 1-and-2-and-3-and-4-and. Let your foot hit the floor on the numbers, and rise up for each "and." Then sing the same melody.

Ex: 8-22



This may still seem like a quarter-note feel until you actually have some melody notes that fall in-between the beats. Tapping your foot while singing the melody below should provide a better sense of an eighth-note feel.

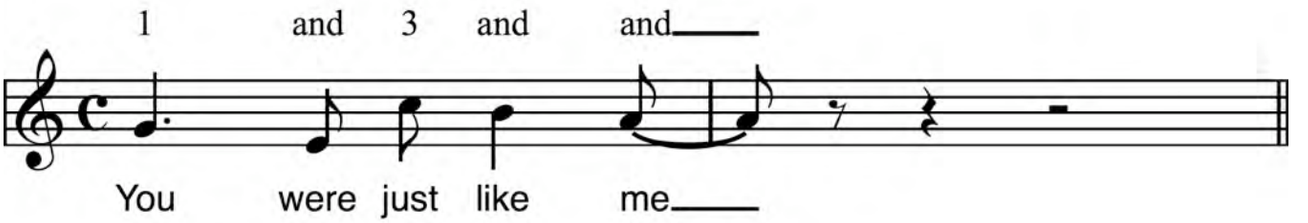
Ex: 8-23



To produce a Syncopated Eighth Note Feel, the regularity of steady eighth-notes needs to be broken up, by placing some notes on the beats, and others in between them. This will naturally result in some pitches being held out longer than others. You should be able to immediately feel more character and personality in your melody when applying this

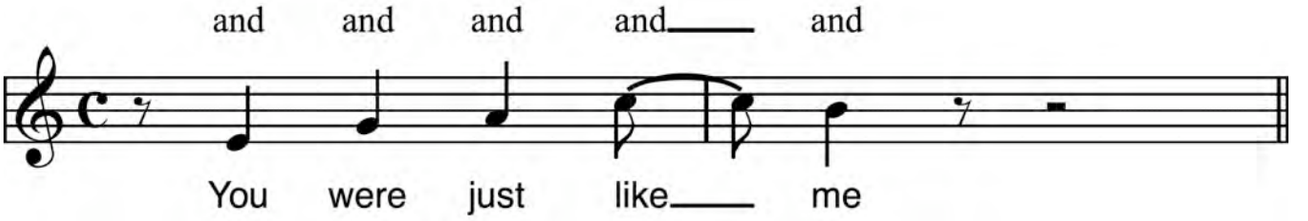
technique. Try this while singing the melody below, with the words landing sometimes on, and sometimes in-between the beats.

Ex: 8-24



To produce a Continuous Syncopated Eighth Note Feel, and go completely against-the-beat, sing the notes of the melody only as your foot rises from the floor, on the "and" of each beat. You will be singing on what are referred to as the "Up-Beats."

Ex: 8-25



Anticipations and Delayed Attacks

When utilizing Syncopation to developing a melody, Anticipations and Delayed Attacks will be incorporated into your phrase as a result.

Anticipations occur by singing a melody note earlier than expected. This creates a pushing-ahead type of feeling.

Delayed Attacks occur when singing a melody note later than expected. This will create a laid-back type of feeling.

Sixteenth Note Syncopation

A Sixteenth-Note Feel is counted as "1-e-and-a-2-e-and-3-e-and-a-4-e-and-a."

Here the "e" and the "a" are the syncopated beats, whereas placing a beat on the number, or the "and," will sound Straight, although the "and" will still sound slightly Syncopated.

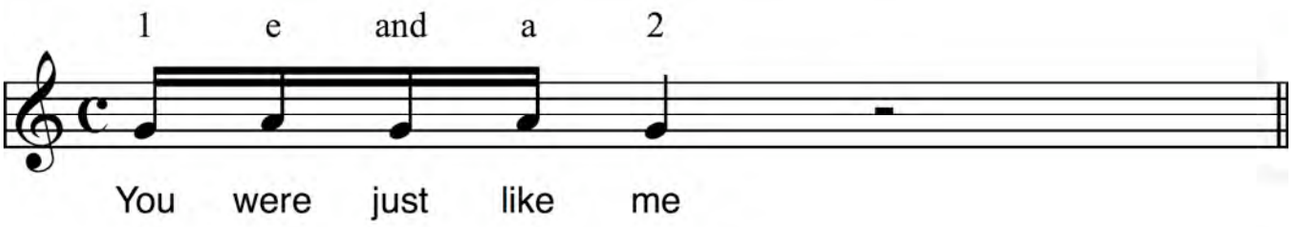
Try tapping your foot while counting "1-e-and-a-2-e-and-3-e-and-a-4-e-and-a," and singing "You were just like me" with the words landing squarely on the each number as your foot hits the floor. This is a Straight Feel.

Now try tapping your foot while counting "1-e-and-a-2-e-and-3-e-and-a-4-e-and-a," and singing the words as your foot rises from the floor, on the "and" of each beat. This is a Semi-Straight, or Semi-Syncopated, 16th-Note Feel. You are singing on the Up-Beats.

Now try singing the words on the "e" of each beat, then on the "a" of each beat, then try mixing these two together, by only singing on either the "e" or the "a" of each beat. This will give you a real sense of 16th-Note Syncopation. You are singing on the Off-Beats.

When actually singing each of the sixteenth notes of the melody, it will go by very quickly, as the following example displays.

Ex: 8-26



"You"	is on the	1
"Were"	is on the	"e" of 1
"Just"	is on the	"and" of 1
"Like"	is on the	"a" of 1
"Me"	is on the	2

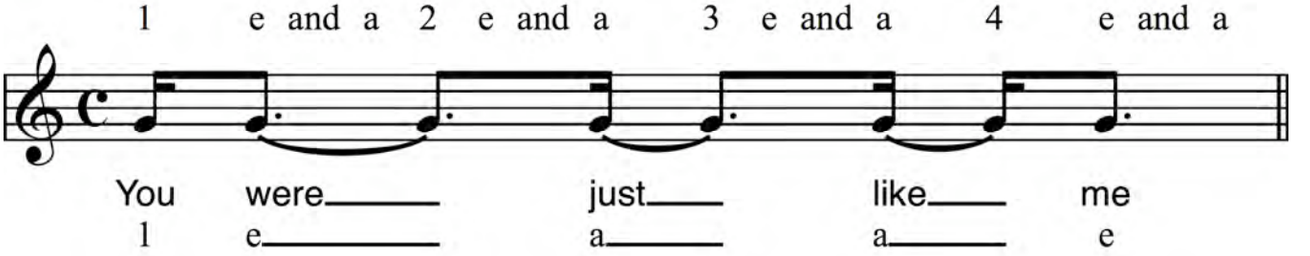
This is a sixteenth-note feel, but it is not syncopated.

When counting:

1 e and a 2 e and a 3 e and a 4 e and a

Here is one way to Syncopate the Sixteenth-Note Rhythms

Ex: 8-27



The above example spreads out the sixteenth notes throughout the measure, rather then having them placed consecutively, and puts them all on the Off-Beats.

“You”	is on the	1
“Were”	is on the	“e” of 1
“Just”	is on the	“a” of 2
“Like”	is on the	“a” of 3
“Me”	is on the	“e” of 4

Sixteenth-Note Syncopation is really the rhythmic essence of Funk music, in addition to much of what is heard in Soul, R&B, and the Blues.

Exercise: Set a melody of your own rhythmically in the following ways:

1) Straight Quarter Note Feel
2) Straight Eighth Note Feel
3) Syncopated Eighth Note Feel (Intermittent, mixed with straight notes)
4) Syncopated Eighth Note Feel (Continuous, against-the-beat)
5) Straight Sixteenth Note Feel
6) Semi-Syncopated Sixteenth Note Feel (Up-Beats, sing on the “and”s)
7) Syncopated Sixteenth Note Feel (Off-Beats, sing on “e” and “a”)
8) Mixed Straight and Syncopated Sixteenth Note Feel

Rhythmic Variety

In addition to Syncopation, there are many ways to add character to a melody simply by mixing together rhythms of different durations and placing them on various different beats. In this section we will review the basic rhythmic durations. We then take a look at how Triplets are created, and how they can be syncopated, and the different possible durations for Triplets. Next we will see how Rests can be added within the rhythm of a melody. Finally we will look at combining Straight Notes, Syncopated Notes, Triplets, and Rests, with different Note Durations, to create many possibilities for rhythmic variety.

Basic Note Durations in Common Time

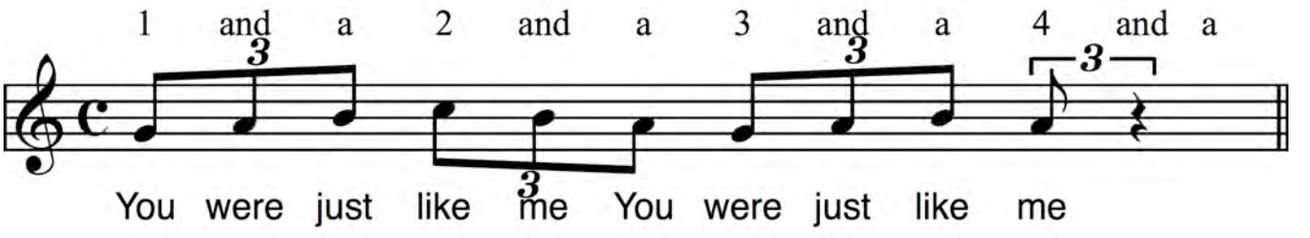
Whole Note	**4 beats long**	**1 per measure**
Half Note	**2 beats long**	**2 per measure**
Quarter Note	**1 beat long**	**4 per measure**
Eighth Note	**½ beat long**	**8 per measure**
Sixteenth Note	**¼ beat long**	**16 per measure**

Triplets

Triplets replace a group of two notes with a group of three within the same time frame. They can be applied to notes of any duration.

Eighth Note triplets are counted: 1-and-a-2-and-a-3-and-a-4-and-a.

Ex: 8-28



In the above example, I strung together two of the same melodies, back-to-back, to demonstrate an interesting way in which a phrase can be turned around, by beginning it on different subdivisions of a triplet. Utilizing triplets within Common Time (4 beats per measure), creates a 3-against-4 feel, which can turn a phrase around in very unique ways.

Syncopated Triplets

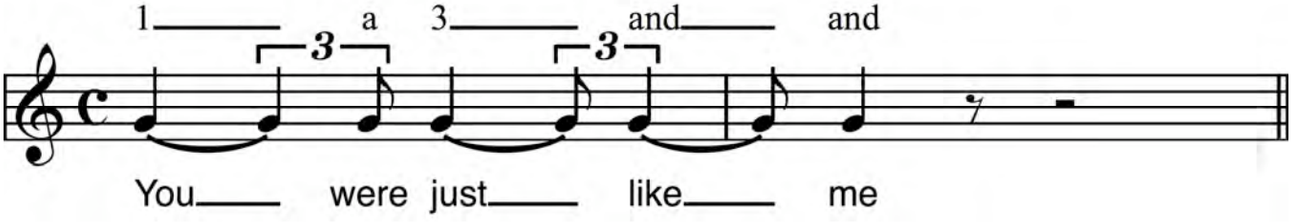
Triplets can be Syncopated by placing notes on either the "and" or the "a" of the beats.

When counting

1 and a 2 and a 3 and a 4 and a

Here is one way to Syncopate Eighth Note Triplets

Ex: 8-29



"You"	is on the	1
"Were"	is on the	"a" of 2
"Just"	is on the	3
"Like"	is on the	"and" of 4
"Me"	is on the	"and" of 1 in the 2nd measure

Triplets of Different Durations

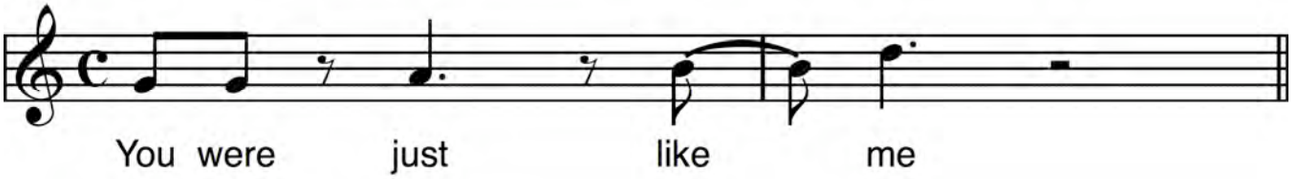
Replacing any two notes of the same duration, with three notes, will create triplets. So in addition to Eight Note triplets, there can be Quarter Note Triplets, which are slower, Sixteenth Note Triplets, which are faster, and many other possibilities. Below is a chart of how the 5 basic note durations can each be converted into triplets.

2 Whole Note	**3 Whole Note Triplets**	**spans 8 beats**
2 Half Note	**3 Half Note Triplets**	**spans 4 beats**
2 Quarter Note	**3 Quarter Note Triplets**	**spans 2 beats**
2 Eighth Note	**3 Eighth Note Triplets**	**spans 1 beat**
2 Sixteenth Note	**3 Sixteenth Note Triplets**	**spans ½ beat**

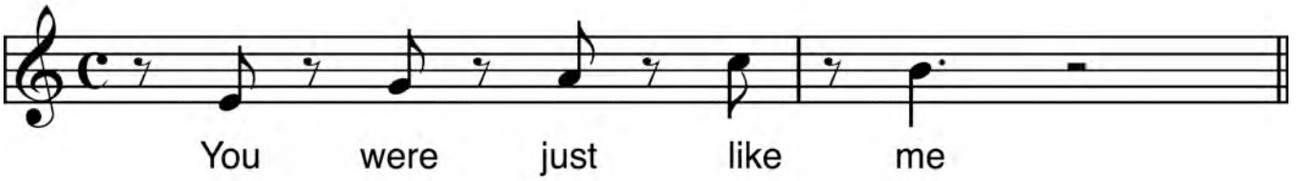
Rests

Rests can be inserted within your melody to add character, create syncopation, or both. If the rests are too long, however, they could make your phrase sound like several different melodies, rather than the one melody that injects moments of silence in it to add flavor. Below are two examples that incorporate rests into a melody.

Ex: 8-30 Eighth-Note rests on beats 2 and 4



Ex: 8-31 Syncopated eighth-notes with rests between each note

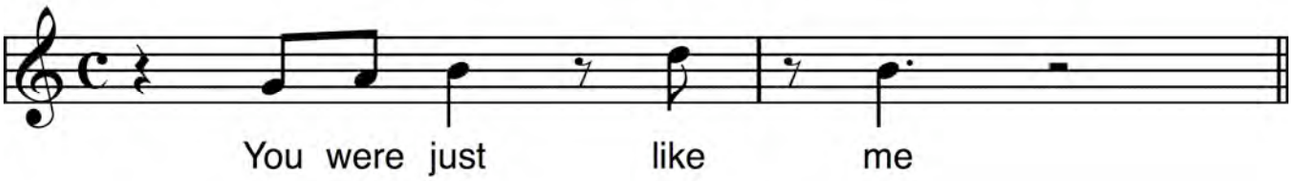


Mixing Different Rhythms Together

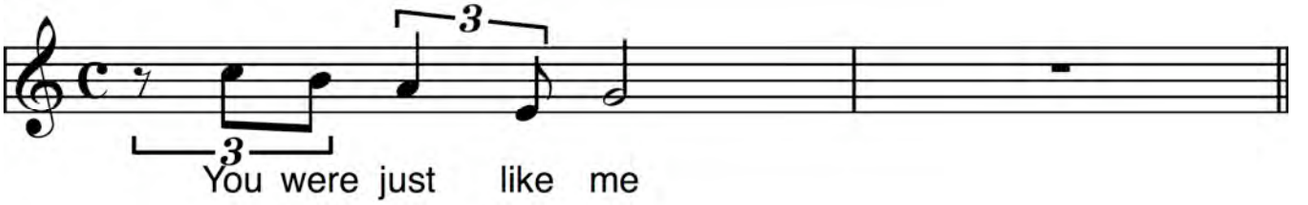
Mixing Straight and Syncopated rhythms, along with Triplets and Rests, while using various different Note Durations, is really the key to creating a melody that has character. However, it is possible to over use these effects, and have too much variety. When all of your notes are placed on unusual subdivisions of the beats, you could create some very intricate rhythms, but it might become very tricky for listeners to sing along with, and remember the melodies. Too much variety can take a melody away from the foundation of simplicity, which is the most essential component of a memorable melody. Nevertheless, neglecting the rhythmic component of your melodies could bore people to death, so it is very important as a songwriter to gain a thorough understanding of rhythm.

Here are some example of combining Straight Notes, Syncopated Notes, Triplets, Rests, and a variety of different Note Durations, within a single melodic phrase.

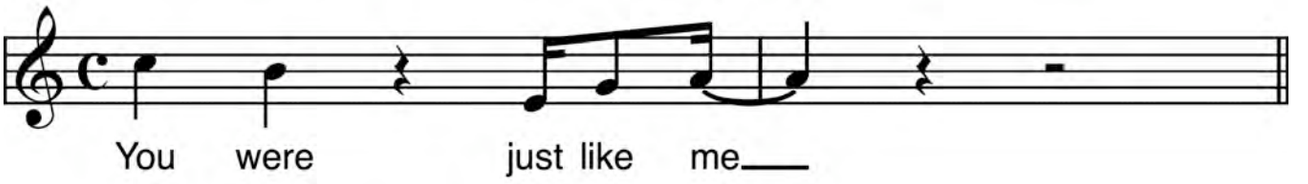
Ex: 8-32



Ex: 8-33



Ex: 8-34



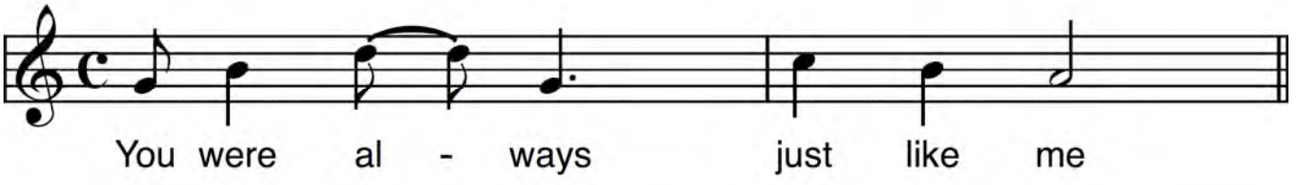
Exercise: Take a melody of your own, set it to an Eighth Note Feel, and experiment with Straight verses Syncopated rhythms. Next, set it to a Sixteenth Note Feel and experiment with Straight, Semi-Straight, and Syncopated rhythms. After that try using Triplets in your melody. Finally, add some short Rests. The goal of this exercise should be to find one or two ways of setting your melody using rhythmic variety that are more appealing than the original. It will also help you gain facility at employing all of the different possible rhythmic variations to a melody.

Phrase Length

A great way to increase the potential with a melody is by Extending or Truncating the length of the original phrase, making it longer or shorter, by adding or subtracting words and notes. Here are two examples.

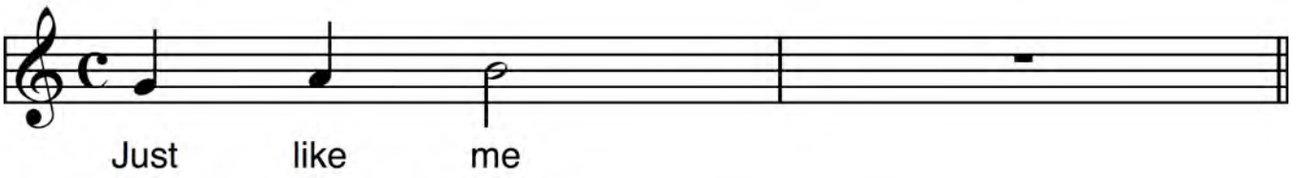
Extended Phrase (Longer)

Ex: 8-35



Truncated Phrase (Shorter)

Ex: 8-36



This is usually done at the end of a phrase, but a melody can just as easily be Extended or Truncated from the middle or the beginning.

When the original melody is changed, it will then be possible to cycle through all of the other melody development techniques again, experimenting with variations on your new melodic phrase. The result will often be completely different melodies than the ones that emerged when experimenting with the original phase length.

Exercise: Take a melody of your own and shorten the amount of notes and/or words in it. Then experiment with some of the techniques that we have covered in this chapter. Next, take the same melody and make it longer by adding notes and/or words to it, and cycle through the different techniques, making changes and experimenting. Some interesting new melodies should emerge.

A Note About Prosody

There are three applicable meanings to the word Prosody: One, the analysis of accent patterns within Lyrics by themselves; Two, the matching of Lyric accents to the accents in Music; Three, the aligning of the meaning of Lyrics with the movement of melody. It is the second definition that we will consider in this section.

Any rhythmic grouping, whether it is of notes, measures, or entire song section, will have strong and weak accents. This is due to the fact that in order to break up a steady flow of music into notes, measure, or song sections, we need to attach regularly recurring accents to them. Without applying accents, the only rhythm the music would contain would be a steady undifferentiated pulse. Once we apply accents we then suddenly have strong and weak beats, notes, measures, and song sections. The weak beats will simply be the notes that were not accented, but the hierarchy of strong-weak can be slightly more complex than that. We have already covered accent patterns for measures within a song section in the section on Rhythmic Displacement. In this section we will cover the micro level of rhythm, the Notes.

Below is a listing of several accent patterns inherent in groupings of different note durations. For simplicity sake we will consider these notes within the context of one measure of 4/4 time, and imagine each group begins on the first beat of the measure.

1 Whole Note	Strong
2 Half Notes	Strong-Weak
4 Quarter Notes	Strong-Weak-strong-weak
8 Eighth Notes	Strong-Weak-strong-weak-Strong-Weak-strong-weak
16 Sixteenth Notes	S-W-s-w- S-W-s-w- S-W-s-w- S-W-s-w

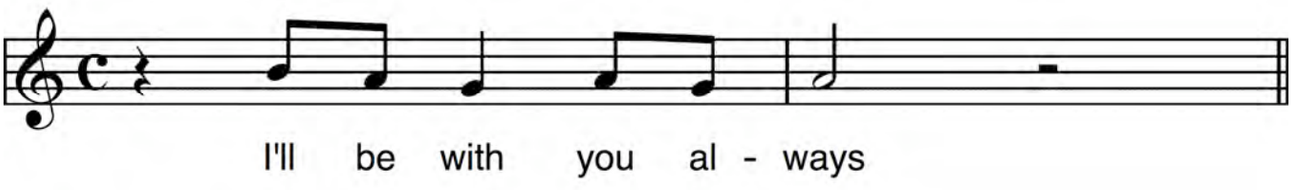
3 Half Note Triplets	Strong-Weak-weak
6 Quarter Note Triplets	Strong-Weak-weak- Strong-Weak-weak
12 Eighth Note Triplets	S-W-w- S-W-w- S-W-w- S-W-w
12 Sixteenth Note Sextuplets	S-W-w- S-W-w- S-W-w- S-W-w- repeated 2x

Remember that the notes of a melody are set against the meter, which has its own accent pattern. The accent patterns of a melody, and those of the meter, will be summed together to determine the true strength or weakness of each note of the melody, which can get quite complex.

Words are a little simpler. They have strong and weak accents within their syllables. This become clearly recognizable when we try to reverse them. For instance, try pronouncing the word “Complicated,” COM-pli-CAT-ed (S-W-s-w), and changing the pattern to pattern to (W-S-w-s), pronouncing it com-LPI-cat-ED. You can look up any word in the dictionary to quickly discover its accent pattern.

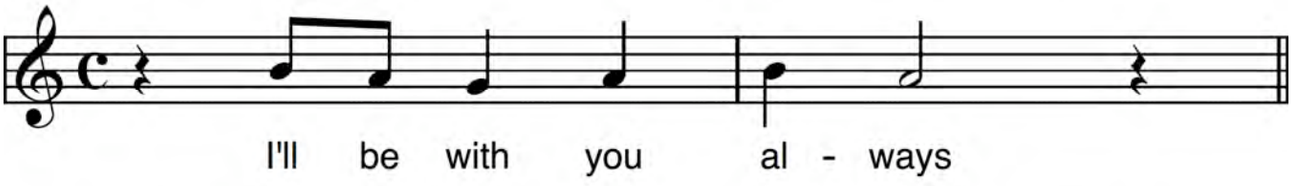
A mis-accented word, in which the strong and weak accents of the words do not line up with the strong and weak accents of the music, will cause problems within a melody. Below is an example of a mis-accented word in relation to music. Notice that the word “always,” which should be pronounced “AL-ways,” is pronounced “al-WAYS,” with the strong and weak accents reversed. This is due to improperly aligning the accents of the word, by placing the weak accent on the strong downbeat of the measure.

Ex: 8-37



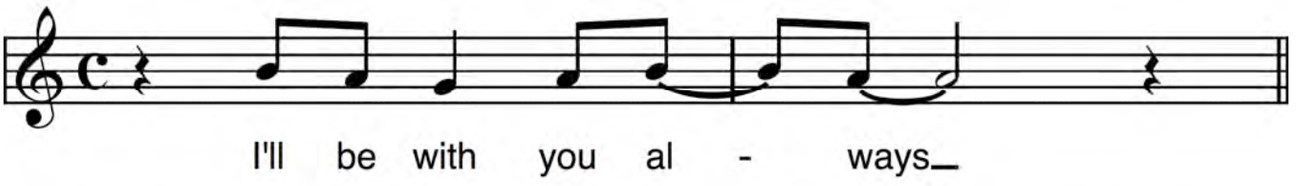
In the next example the accents have been aligned properly. There is, of course, more than one way to correctly align the accents. Any placement that would align the first part of the word with one of the four main beats of the meter would work fine.

Ex: 8-38



Another way to correct this would be to keep both the strong and weak accents of the word on weak beats, or on subdivisions of the beats, within the music, as in the example below.

Ex: 8-39



Additionally, sentences have strong and weak words. Placing connecting words like "the," or "and," on strong beats in the meter will sound awkward.

Rhythmic accents of both the words and the music need to line up. If you set a weak syllable of a word on a strong music beat, or vice versa, it will sound awkward. When something sounds awkward a the song, the brain has trouble making sense of it. At that point one of two things will happen. The listener might consciously realize that something didn't make sense in the music, and stop to try and figure out what it was, and how to make sense out of it. This is not the most common response at all however. What is much more likely is that the listener will subconsciously "not get it," disconnect from the music a little, and start thinking about something else, because for that brief moment the music became incomprehensible. In either case, the listener will stop listening. Your primary goal as a songwriter is to communicate music in such a way that listeners will connect with the music; he or she will "get it," or at least have a desire to "get it." These may at first seem like miniscule subtleties, but people really will subconsciously tune-out the song, or get mentally stuck on it, when they hear mis-accented words in relation to accents in the music.

When examining lyric-melody relationships, a whole new world of possibilities will open up, such as experimenting with more than one pitch per syllable, and more than one syllable per pitch. This is covered in detail in the companion book to this series that covers Lyric Writing.

Exercise: Proofreading: Try purposely mis-accenting words, by placing weak syllables on strong beats of the Meter, and vice versa, until you hear how awkward this can sound,

and fully understand the concept. Next, double-check all your songs for mis-accented lyrics.

Developing Your Sense of Rhythm

One of the best ways to develop your rhythmic ability at a very high level is by learning to read standard music notation. This allows you to see a visual representation of the rhythms that you play, sing, or write. Another essential training tool for rhythmic development is the Metronome. Any serious musician will spend years practicing with a Metronome, to gain accuracy with timing. This is just as important for songwriters, and should not be neglected.

Although being able to read standard music notation is a very useful skill to learn, it is not 100% necessary for developing a great sense of rhythm. In Hip-Hop and Rap music, rhythm is the main component of the melodies, because there is virtually no pitch variation. Many songwriters within these genres are masters at creating intricate rhythmic melodies that are spoken on one or two pitches only. This skill is usually learned aurally, through listening, by copying and modifying the rhythms that are heard in other songs of the genre, and through improvising to drum beats. There is always a steady beat in Hip-Hop and Rap, which acts as a Metronome, and helps writers develop accurate timing. But reading and writing standard music is never part of the songwriter's development in these styles. So reading music is not necessary to become proficient with rhythms, but it can be extremely helpful.

9. Pitch of Single Melodies

This section will deal with the pitch component of single melodies. We will first be learning techniques for developing the way pitch progresses within melodies without any consideration to harmony (chords). Chord-Melody relationships add another layer of complexity to songwriting. That topic will be covered in a later section.

Techniques Related to Pitch

- **Scales**
- **Melodic Development Techniques**
- **Contour and Melodic Outline**
- **Intervallic Expansion and Contraction**
- **Permutation**
- **Tendency Tones**

Scales

The most common way to build the pitch content of a melody is by simply choosing a type of scale and a key to work within, and then applying your own creative intuition within those limiting parameters. Keeping all of the pitches of a melody in the same key will provide the most cohesiveness. You can also apply more advanced techniques that borrow pitches from different keys. These will be discussed later in this book in more detail. But it is best to stick with melodies at first in which the pitches are all derived from the same scale. Once you master this, exploring advanced concepts can then expand your melodic possibilities.

Here are some important considerations when choosing a scale for your melody. Using Major and Minor scales is best for ensuring that the pitches of your melody, and the chords you use, will fit together effectively. Chords are built from scales. Using melody notes and chords that are both constructed from the same scale is the best way to have the music of your song sound like it all belongs together. Pentatonic and Blues Scales have a distinct sound to them that can work with many different chords, as long as there is a common tonal center. This gives them the unique feature of being able to float over top of chord changes, without the need for the pitches to fit precisely into the harmony on a chord-by-chord basis. To develop your skills with chord-melody relationships, I suggest that you use Major and Minor scales for your melodies, and the chords derived from these scales for your harmony. Matching chords with scales will be covered in a later section. Pentatonic and Blues scales can be used for creating a certain sound with your melodies that doesn't depend so much on aligning the pitches with the chords.

Here are some considerations for choosing a key. Any of the 12-keys can be used effectively by any singer, no matter what their vocal range. Issues with changing keys come into play when setting a melody for the best possible part of a singer's voice.

Sometimes the high note in the melody may be out of range for a singer, but dropping the melody down an octave will place the it in a muddier, or less resonant, part of the singer's voice. This is often the main reason for changing keys.

Practicing writing melodies in a variety of keys can also be useful for other reasons. Sticking mainly to one or two keys could psychologically limit you from using various pitches of the octave that might otherwise develop into nice melodies. Practicing in different keys will ensure that you don't limit your writing capabilities to only the strong sections of your own vocal range. If you develop a good melody in one key and it ends up being out of your range, or too low to really resonate, that is the time to change keys. But don't just find a key that works for you and do all your writing within that key only; you will miss out on a lot of good melodies that way.

When writing for another singer, it is important that you learn the strengths, weaknesses, and limits, of his or her vocal range. You can then either build a melody to fit the singer's vocal range, or change the key of a song you have already written so that it suits the singer's voice well.

Exercise: Practice improvising melodies within a major or minor scale. Do this in a different key each time you practice. When you arrive at a melody that you like, try that same melody in several different keys, and find the one that fits your vocal range the best. Then, if you have another singer that you work with, try adapting the melody to fit his or her voice.

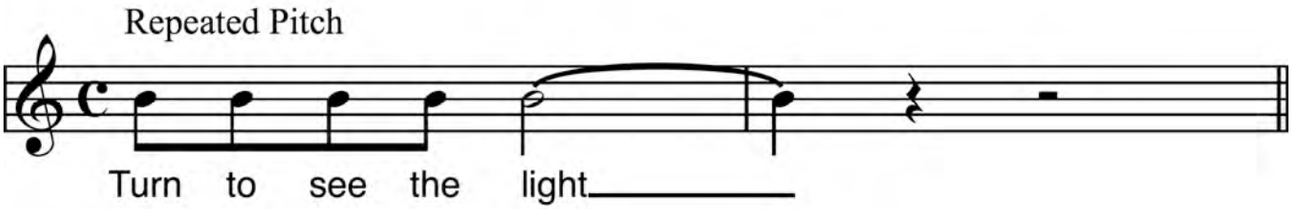
Melodic Development Techniques

- Pitch Repetition
- Neighbor Tones
- Skips
- Passing Tones
- Arpeggios
- Scales
- Leaps

When using scales to create the pitch content for your melody, here are a few tools that can be used almost any time. These are your basic pitch development techniques that can be employed whether you are creating pitch content from a single note, applying pitches to an already written rhythmic phrase, editing the pitches within a completed melody, embellishing a melody with new notes, or connecting the notes of a melodic outline.

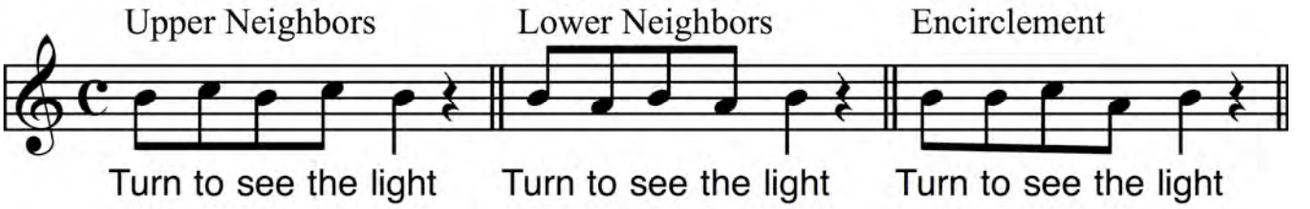
Pitch Repetition: Remaining mostly on the same pitch for the entire melody. This technique is often used in conjunction with very rhythmic melodies, where the simplified pitch content allows the rhythm of the melody to be emphasized.

Ex: 9-1



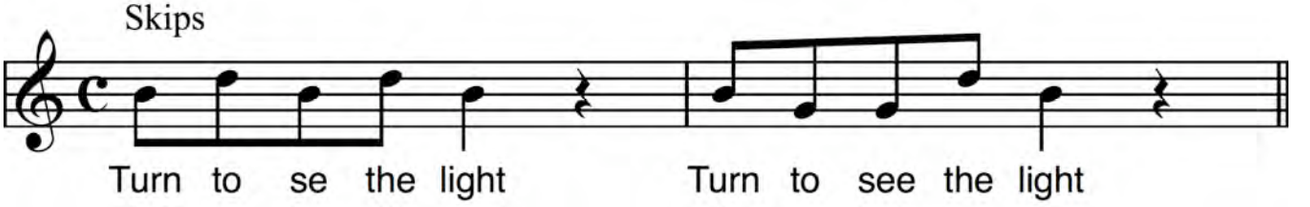
Neighbor Tones: These are pitches that move a scale-step away, either up or down, from the starting pitch. The steps can be either half-steps or whole-steps, which will be dictated by the degree of the scale from which you began. They normally resolve back to the original pitch. An Upper Neighbor is a pitch a step higher than the original, and a Lower Neighbor is one that is a step lower. Indirect Resolution (also called Encirclement, or Changing Tones) is the use of both an Upper and a Lower Neighbor just prior to a designated pitch. Neighbor Tones often occur on weak beats, and are commonly of shorter duration than the primary pitches.

Ex: 9-2



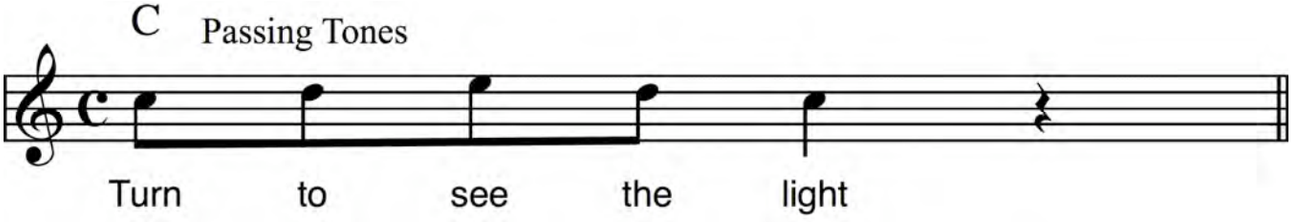
Skips: This is a movement larger than a whole-step. Skips are often chord tones, but they can also be non-chord tones. When the starting pitch and the pitch destination pitch are both chord tones, they will often be placed on strong beats, as a way to better outline the harmony.

Ex: 9-3



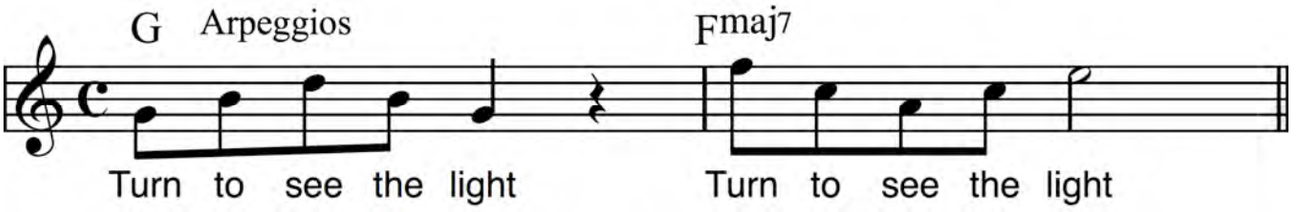
Passing Tones: A Passing Tone is a scale tone that connects chord tones.

Ex: 9-4



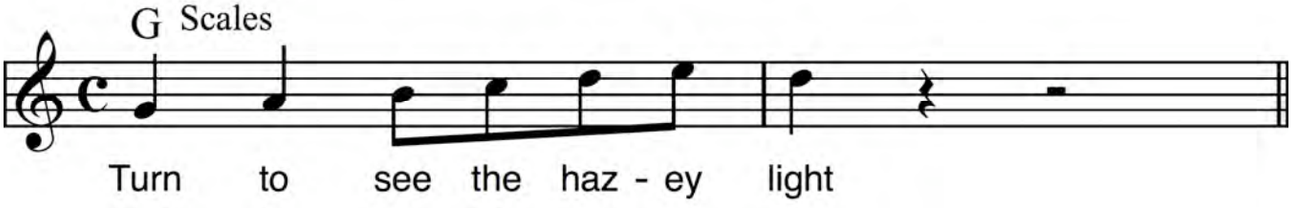
Arpeggios: Chords come from scales, the most common ones being triads and 7th-chords. An arpeggio is a chord voiced one pitch at a time, rather than simultaneously. The direction an arpeggio moves can move Up, Down, in an Arch, in an Inverted Arch, or Varied. Notice how the arpeggios below outline the notes of the chords.

Ex: 9-5



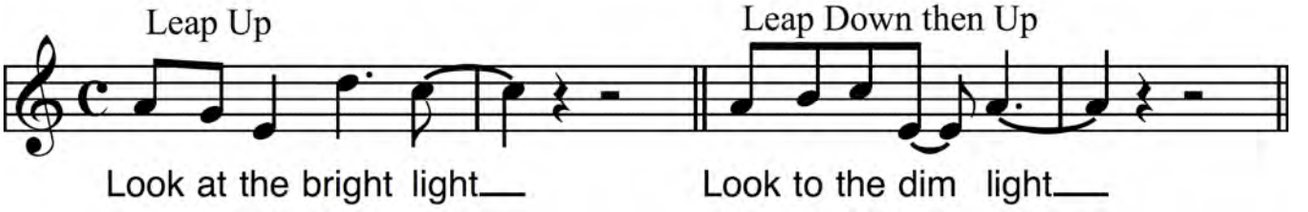
Scales: Your basic melody will usually be built from a scale, but scale tones can also be great for connecting pitches within your melody, or embellishing it. Whenever you wish to connect two notes in a melody that are far apart in pitch, the simplest way is to use the pitches of the scale that fall in between, in conjunction with some faster rhythms.

Ex: 9-6



Leaps: Taking big jumps in pitch can add a dramatic effect to your melodies.

Ex: 9-7



Notice that the melody moves in the opposite direction both before and after the leap. This is not a strict rule to go by in modern music, but most of the time you find that it will create more balance, and sound better. Too much movement in the same direction can make your melody sound awkward. Also, too many leaps in a row can make a melody sound disjointed. A leap will usually sound better when followed by smaller steps, rather than by another leap. Also be aware that the note that you leap to will be accented by the leap, along with the word to which it is attached. For this reason is not a good idea to leap to connecting words like "the" or "and," which have weak accents within a lyric phrase.

General Guidelines creating balance when using Leaps:

1) Precede leaps with movement from opposite direction.
2) Follow leaps with movement in opposite direction.
3) Don't use too many leaps in a row.
4) Precede and follow leaps with stepwise motion.
5) Only leap to pitches and words that you want accented.

Keep in mind that big leaps in pitch can be quite dramatic. Putting leaps in the wrong place could make your melodies sound very awkward. You will need to experiment to find the best places for leaps within a section of a song.

* * *

When employing these Melodic Development Techniques, it is important to consider, and keep in balance, the amount of conjunct verses disjunct motion within your melody. Conjunct motion usually refers to stepwise motion within the scale. Chromatic steps in a series and are not normally thought of as conjunct motion because they can be tricky to sing. Disjunct motion refers to any interval larger than a whole-step, such as the notes of an arpeggio, or leaps to higher or lower pitches. Most melodies employ a majority of conjunct motion., which is the easiest to sing, and tends to sound very melodic. Disjunct motion, however, can add a great deal of character to your melody. Just be careful not to use too much of it, because it could make your melody sound disjointed when overused.

Exercise: Create a melody and experiment with each of these basic Melodic Development Techniques. Be sure that you understand each one and can utilize them easily. It is also a good idea to memorize these, as they will be the basic building blocks of more advanced pitch development techniques.

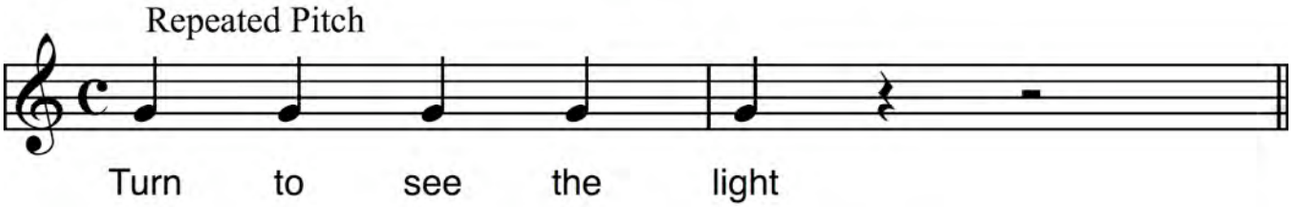
Contour And Melodic Outline

Now we will examine the overall shape of the pitches within a melody. Do the pitches repeat, go up, go down, or move in a variety of directions? There will be, of course, many possible nuances of melodic contour within any of these overall directions, but we can narrow them down to six general categories.

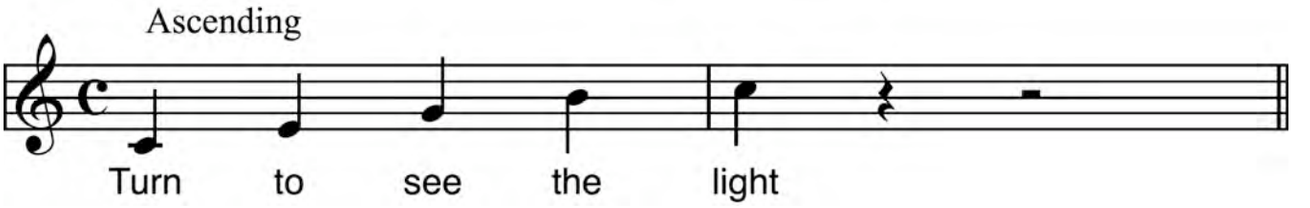
Contour

Repeated-Pitch Ascending Descending Arch Inverted-Arch Varied

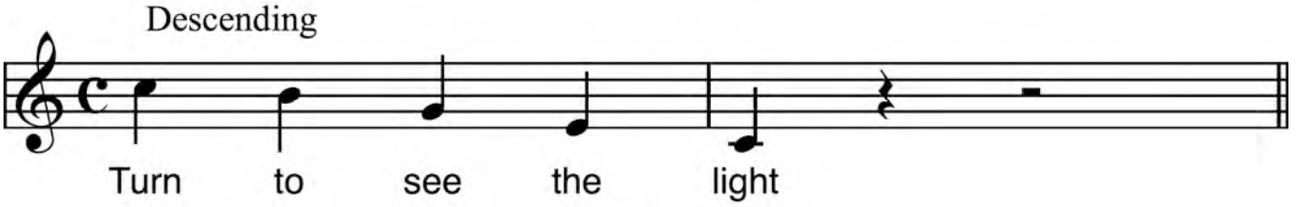
Ex: 9-8



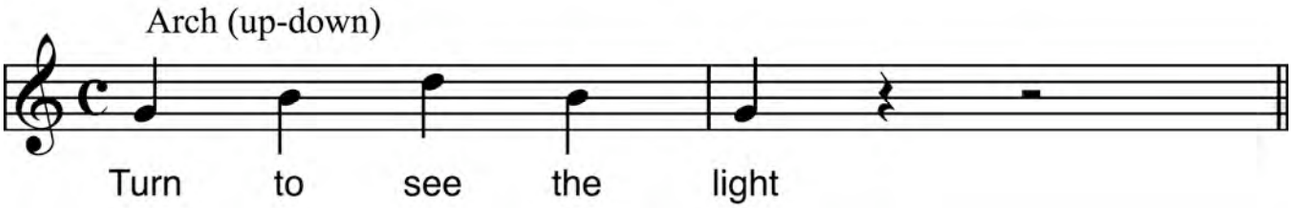
Ex: 9-9



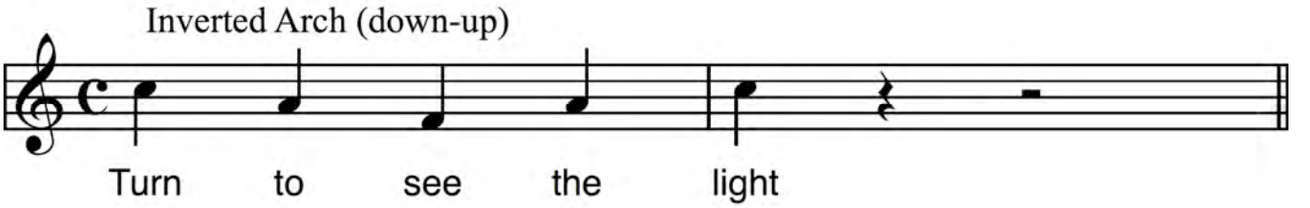
Ex: 9-10



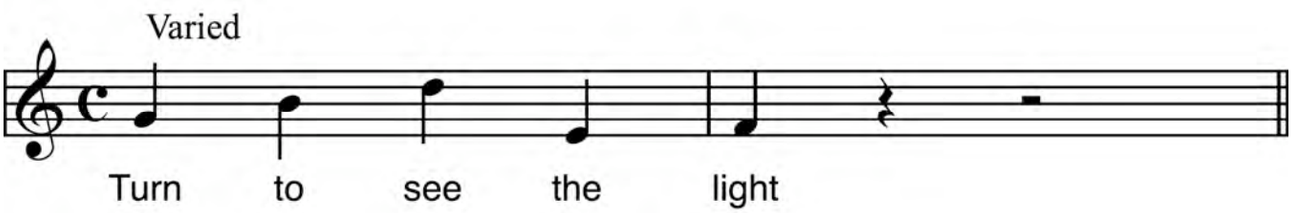
Ex: 9-11



Ex: 9-12



Ex: 9-13



Of course we could apply many variations to any of these contours. We could jump up, stay on one pitch for a few notes, and then descend slightly. We could create an arch shape that peaks closer to the beginning or the ending of the melody, rather than in the center. Melodic shapes are limited only by your imagination. Nevertheless, it is good to

have categories to work with. Learning to write melodies fluently using any of these six shapes will be very useful.

Melodic Outline

Prominent notes within the contour of a melody will create a Melodic Outline. The following type of notes will define the outline:

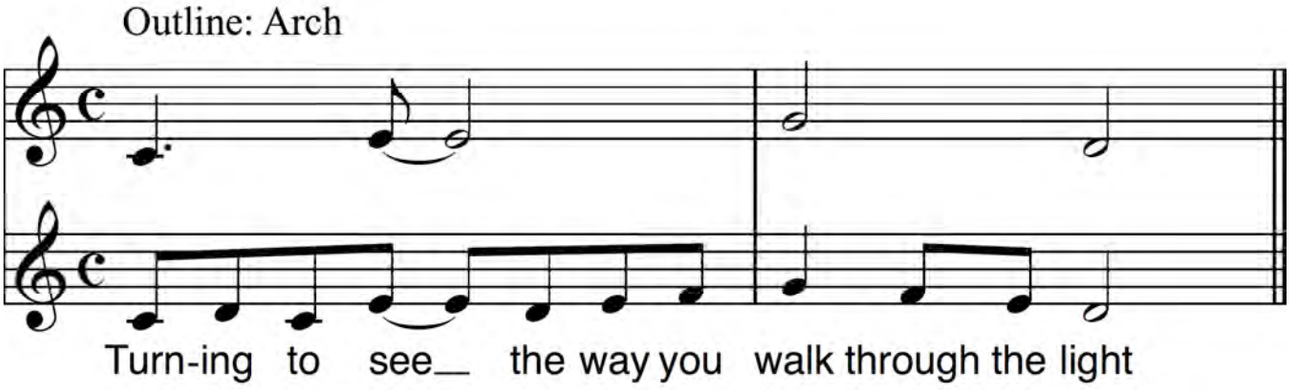
- Starting Note (excluding any pickup notes)
- Ending Note
- High Note
- Notes on Strong Beats
- Repeated Notes
- Long Notes
- Accented Notes
- Pronounced Syncopated or Anticipated Notes

All of the notes in between the outline notes will be embellishing notes. These will tend to be notes that are shorter in duration, are placed on weaker subdivisions of the beats, and are unstable in pitch tendency. Of course, with a simple 5-note melody, every note will most likely contribute to the outline. But with more complex melodies it is helpful to differentiate the notes of the outline from the embellishing notes. Embellishing notes can be easily changed without affecting the contour of the melody. When the notes of the outline change, however, this can significantly change the melodic contour, and with it the feel of the entire melody. A strong melodic outline will primarily use Conjunct Motion (step-wise) and small skips, but it may contain one or two leaps.

The techniques used to connect the notes of the outline will be the same ones discussed in the section on Melodic Development: Pitch Repetition, Neighbor Tones (Upper or Lower Neighbors and Indirect Resolution), Skips, Passing Tones, Arpeggios, Scales, and Leaps..

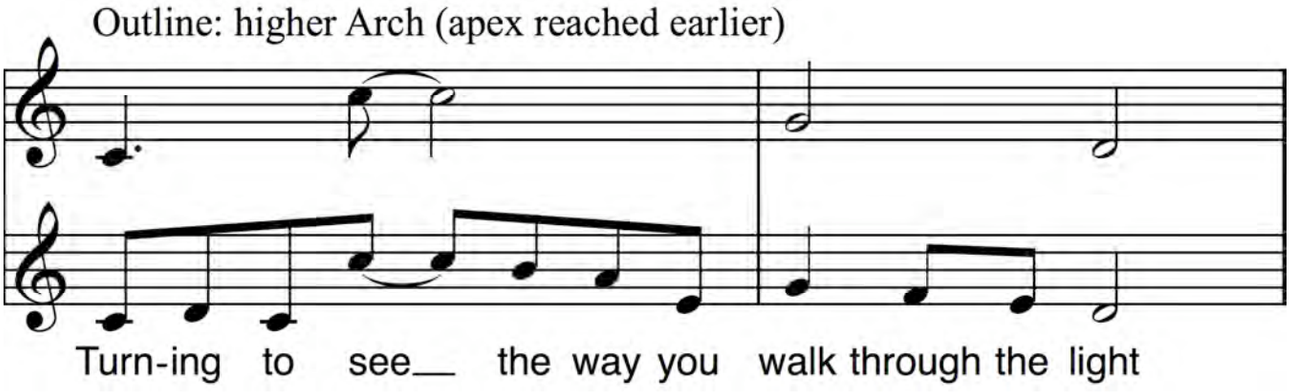
The example below has been made slightly longer than the previous ones in order to demonstrate the differences between the notes of the outline and the embellishing tones. It has an Arch shaped melodic outline that moves mostly in small skips.

Ex: 9-14



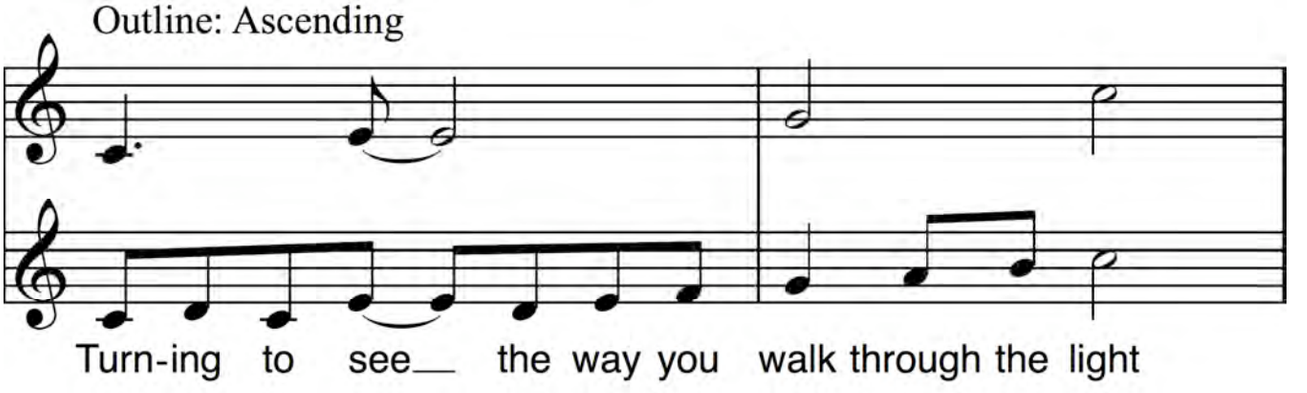
Now notice how changes in the outline can drastically affect the melody. In the following example, the second note of the outline has been raised in pitch from an E note to a C note a major 6th higher, and the notes that followed had to be adjusted to connect them well with the third note of the outline.

Ex: 9-15



In the next example, changing the last note of the outline transforms our arch shape into an ascending contour.

Ex: 9-16



If instead of changing notes of the outline, we changed one or two of the other less prominent notes, it would not have nearly as drastic an effect on the melody.

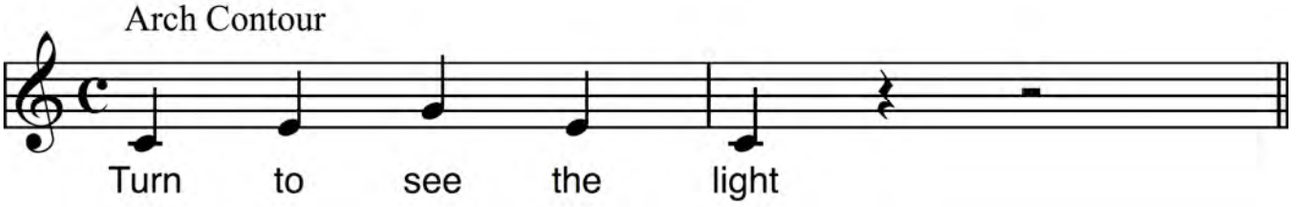
Understanding what your melodic contour is for your melody, and knowing which notes are really outlining that shape, can help you to manipulate and transform your melody much more effectively. This will become even more apparent when we examine the melodic outline of entire song sections, and of the whole song form, in later parts of this book.

Exercise: Sing a melody of your own and transform it utilizing all six possible melodic shapes. Notice that there are many possible variations within each of the shapes. Now try varying the starting point, the duration, and other rhythmic parameters of the melody, while singing the different melodic shapes. Notice that the possibilities quickly become infinite. It is not really necessary though to try every variation, but it is always helpful to try a few for each technique.

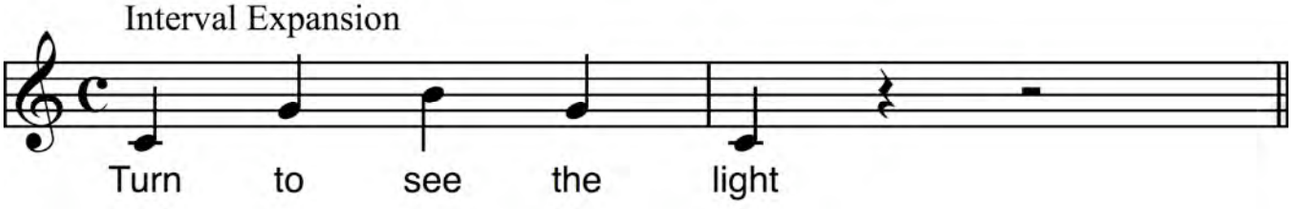
Intervallic Expansion or Contraction

Another component of Melodic Contour concerns how wide the steps are from one pitch to the next. When the melody ascends or descends, does it move up the scale in small stepwise motion, or does it move in wider skips? Changing between wide and narrow intervals is referred to as Intervallic Expansion or Contraction.

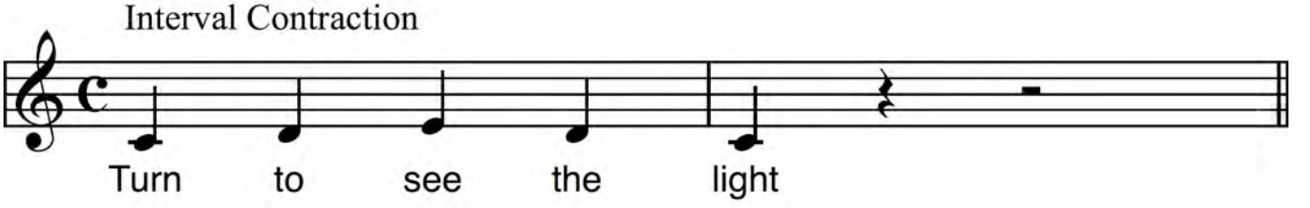
Ex: 9-17



Ex: 9-18



Ex: 9-19



This technique can be used in three different ways.

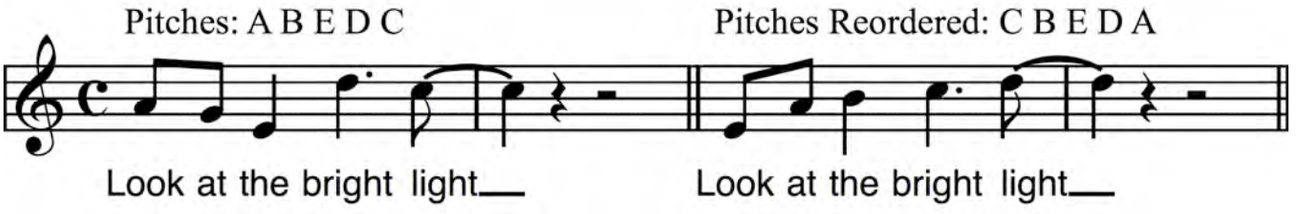
1) Exact Intervallic Expansion or Contraction: Adjust each pitch by exactly the same number of half-steps. Utilizing the technique in this manner, however, will usually create chromatic pitches that are no longer in the same key.
2) Diatonic Intervallic Expansion or Contraction: Adjust each pitch by a certain interval, such as a 3rd, while varying the quality of the interval (major, minor, diminished, augmented), using which ever quality is necessary to keep the melody within the scale. This is often a more natural sounding use of this technique.
3) Free Intervallic Expansion or Contraction: Adjust some pitches even wider or narrower than what is necessary to keep them within the scale, while maintaining the overall contour of the melody. This free form use of the technique will help you avoid limiting your creativity with any mathematical considerations. However, it will sound less similar to the original melodic shape.

Exercise: Sing a melody, applying one of the six melodic shapes, and then sing it two different ways: one, with Expanded Intervals between pitches, and two, with Contracted Intervals between pitches (unless the pitches are too close together to contract them any further, in which case you could try a double expansion). A more advanced exercise would be to apply each of the three methods of Expanding and Contracting that are listed above. Continue with the exercise using each of the six melodic shapes.

Permutation

Permutation is like a little pitch game you can play. Simply take a melody that you like, write down the letter names of the pitches in it, put the letters in a different order, and then apply the new order of pitches back to the same melody, keeping the rhythm of it intact. Notice in the melody below, taken from a previous example, that the rhythm of the melody stays the same, and the pitch content stays the same (we still use the same 5 pitches), but the order of pitches has changed.

Ex: 9-20



Notice in this example that when the pitches are reordered the melodic shape changes from varied to ascending. This technique can help you to maintain certain aspects of a melody that you might want to keep (rhythm and pitch content), yet still provide many possible variations within the pitch order and melodic shape.

Exercise: Take a melody of your own, write down the pitches, permute them into a different order, and apply the new order to the same rhythm of the melody. Try several different permutations of the melody and see if one comes out better than the original.

Tendency Tones

Tendency Tones refer to the natural pull each pitch has toward other pitches within a key. There are stable and unstable pitches in each key. This is due to the relation of the pitches to the Harmonic Series built from the Root of the scale, which was covered in detail in a previous section. The root of the scale is the most stable tone. All other pitches will have an inherent tendency, or pull, towards pitches of closest stability, and ultimately toward the root. Below is a list of pitch tendencies within the Major Scale, copied from a previous section.

Order of stability:

Most Stable 1 5 3 2 6 7 4 Most Unstable

Most Stable	1	5	
Medium	2	3	6
Most Unstable	4	7	

Tendency to Resolve

Scale Tone	Resolution
1	1 is at home
2	1, 3 or 5
3	1 or 5
4	3
5	1
6	5 or 7 then 1
7	1

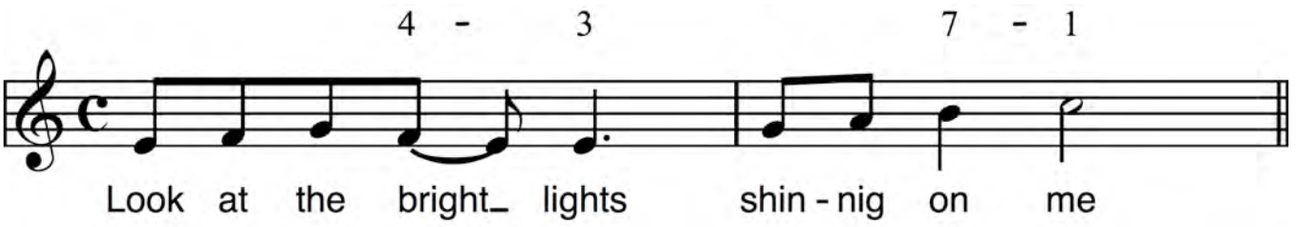
When building a melody, the stable pitches will sound very grounded, but they will tend to slow the momentum of the melody. Stable pitches have less inherent tension, and therefore will have less of a pull to resolve to another pitch. Unstable pitches have a strong pull toward other pitches. This creates tension within the key, and it also propels the melody forward to the pitches of resolution. It is this continual interplay between tension and resolution that provides direction for a melody.

When constructing a melody, be aware of the tendency tones and their resolutions. Keep in mind that there can be either an immediate resolution of an unstable pitch, or there can

be a delayed resolution. This delayed resolution can occur within the phrase, or possibly not until the following phrase. If the melody ends on an unstable pitch, it will sound like an open, or unresolved, phrase. It will seem almost like a question that is searching for an answer in the next phrase. This can be good when the phrase is at the beginning of a section. Toward the end of a section, however, it may be better to end on a stable pitch, which will give the section a sense of closure. Yet, ending a verse on an unstable pitch could help propel the melody into the chorus, where the tension might be resolved, which is often a desired effect. These topics will be covered in detail when we look at song sections and song form.

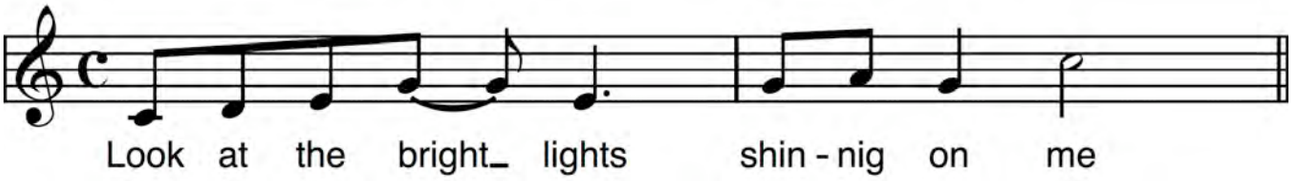
In the example below, notice how the unstable tendency tones and their resolutions propel the melody forward. If you want to really feel how this works, try holding out the 4th and not resolving it to the 3rd; try the same with the 7th and the root. You will probably get a very strong feeling of suspense, and begin to pull your hair out if those notes are not resolved. That is the power of tendency tones.

Ex: 9-21



Notice in the example below that when we leave the unstable pitches out of the melody, and primarily use the stable tones, the melody seems a bit blander. It lacks momentum and direction.

Ex: 9-22



Exercise: Build a melody entirely from the concept of Tendency Tones. Use stable pitches to ground the melody, and unstable pitches to propel the melody from one stable tone to the next.

Developing Your Sense of Pitch

Musicians who play instruments well, especially rhythm section instruments such as drums, bass, guitar, or keyboards, tend to have a really good sense of rhythm, but sometimes need some work on pitch. Singers, on the other hand, usually have a highly developed sense of pitch, but often need work on their timing. Practicing their vocal

exercises with a metronome, learning to read standard music notation, or learning to play a rhythm section instrument, is usually the best solution for vocalists. For instrumental musicians, there is really only one way to develop your sense of pitch—Sing! But don't just sing randomly. It is important to practice scales and exercises vocally, with the same voracity that an aspiring lead guitarist trains on fretboard mastery. Over time, your vocal chords will physically map out all of the chromatic pitches within every octave of your vocal range, in addition to the scales in all keys. Not spending time on this will almost always leave some blank spots within your usable range, where you just won't be able to find certain pitches. But most importantly, the voice is your most direct connection to the music that you create in your heart and your mind. Developing your vocal ability will allow your creative ideas to flow more clearly and fluently. For songwriters, whether you are already a good singer or not, voice lessons is a great way to fine-tune your inner ear, develop a much stronger sense of pitch, and tap into the music of your soul much more directly.

10. Pitch and Rhythm of Single Melodies

This section will deal with techniques for developing single melodies that utilize both rhythm and pitch simultaneously. It will also cover methods of combining all of the rhythm and pitch techniques we have covered so far, when creating melodies.

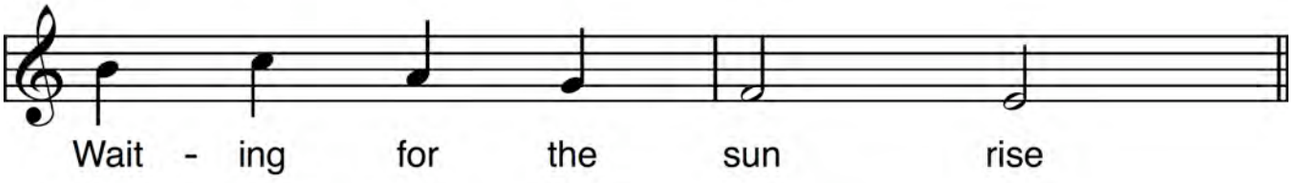
Techniques Related to both Rhythm and Pitch

- **Keep One Change the Other**
- **Ornamentation**
- **Thinning**
- **Combining Techniques**

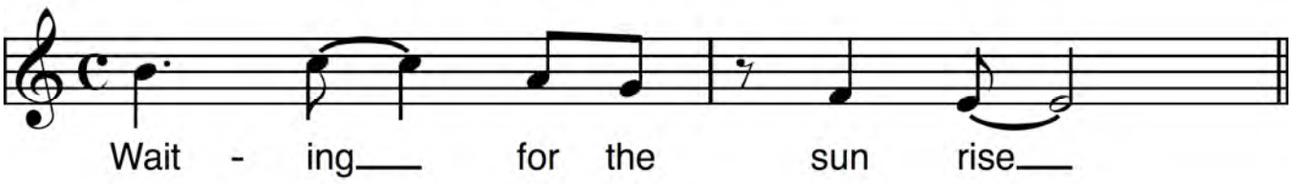
Keep One, Change the Other

A simple way to experiment with a melody is to keep either the rhythm or pitch, and change the other. This can be a fun game to play with your melodies. Here is an example:

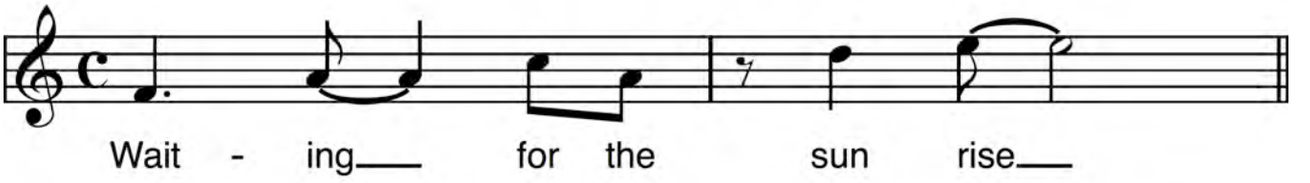
Ex: 10-1 Original Melody



Ex: 10-2 Keep Pitches and Change Rhythm



Ex: 10-3 Keep Rhythm and Change Pitches



Next you can keep the new pitches and change the rhythm again, then keep the new rhythm and change the pitches, and on, and on. You can either apply specific techniques from the previous chapters to alter the rhythm and the pitch, or just go back and forth

between them, changing one and then the other in a more intuitive manner. This can be a lot of fun.

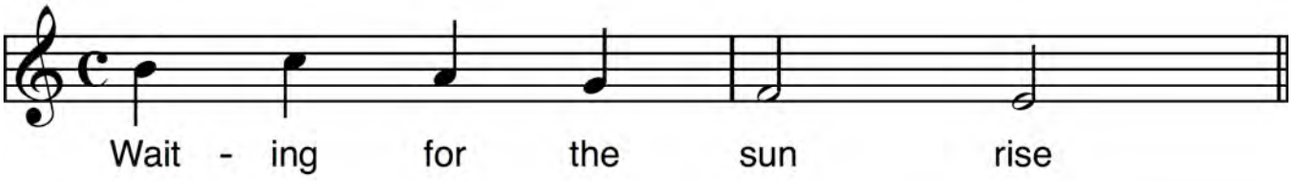
Exercise: Take a melody of your own and experiment with several variations for each of the following techniques: 1) Keep the rhythm and change the pitches, 2) Keep the pitches and change the rhythm.

Ornamentation

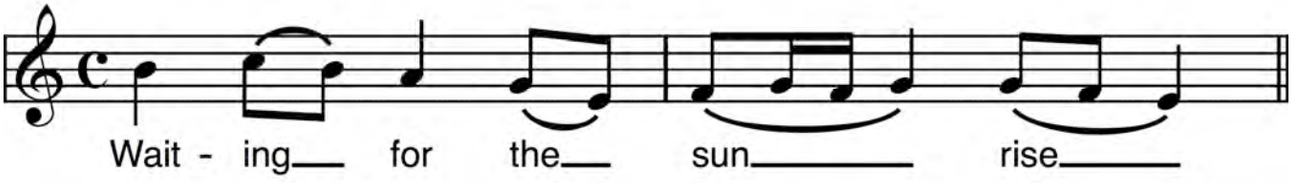
This technique involves two steps. First, find the primary notes of the melody to identify its outline. The outline will be determined by the starting note (exclude any pickup notes), ending note, high note, notes on strong beats, repeated notes, long notes, accented notes, and any pronounced syncopated or anticipated notes. Notes of shorter duration, weak rhythmic placement, and unstable pitches, will usually be embellishing notes. (In shorter melodies sometimes every note will be part of the outline). Second, embellish the outline with additional notes. This can be a simple ornamentation of the outline, or it could actually entail building the melody into a much larger group of notes, that might take on a different melodic outline all together. Although the embellishing notes will normally be shorter in duration, and less stable in pitch tendency, this is not always the case. In some situations very prominent notes could be effectively added to a melody. Ornamentation works best when beginning with a sparse melody. If there are a lot of notes there already it does not leave much room for ornamenting. Note that ornamenting a melody does not turn it into a longer phrase, just a denser one.

When dealing with lyrics while ornamenting a melody, there will be two options: one, lyric syllables can be stretched out over the ornamentation, or two, new lyrics can be added to match new ornamentation notes one-to-one. Both options are demonstrated in the examples below.

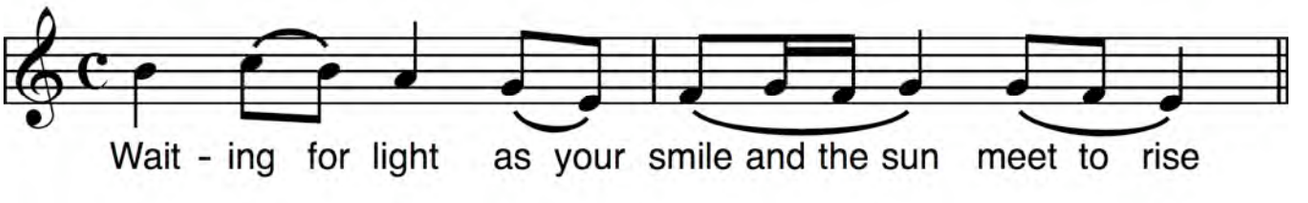
Ex: 10-4 Original Melody



Ex: 10-5 Ornamented Melody (Lyric syllables stretched out over the ornamentation)



Ex: 10-6 Ornamented Melody (New lyrics added to match ornamentation one-to-one)

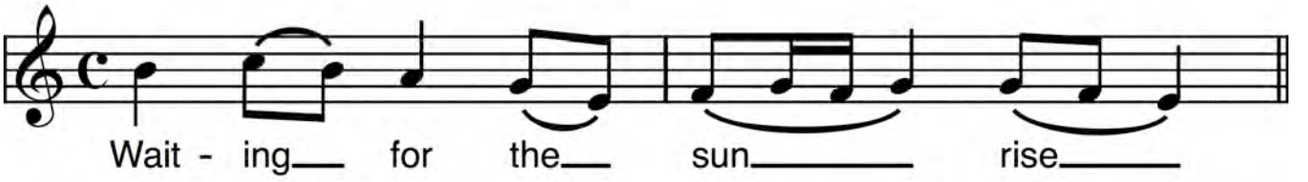


Exercise: Create a melody, identify its outline (in a very sparse melody it is possible that every note will be part of the outline), and embellish it using primarily shorter notes, with weaker rhythmic placements and less stable pitches.

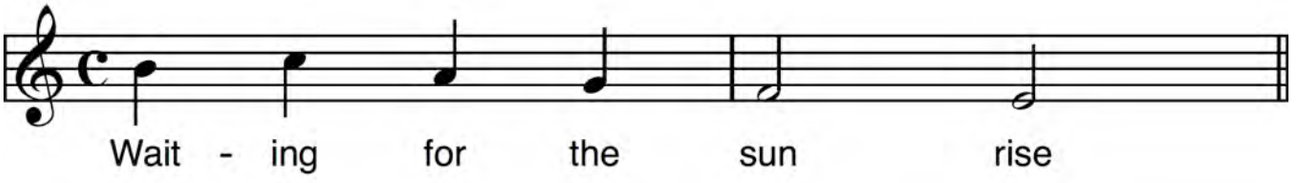
Thinning

Thinning is the opposite of Ornamentation. It involves deleting notes from a melody. This could be a simple deletion of the embellishing notes, or it could entail deleting notes from the main structure of the melodic outline. When a melody is thinned out in this manner, rests could simply replace the notes that have been deleted, or the notes that remain could be extended to fill in the gaps. Both methods are demonstrated below.

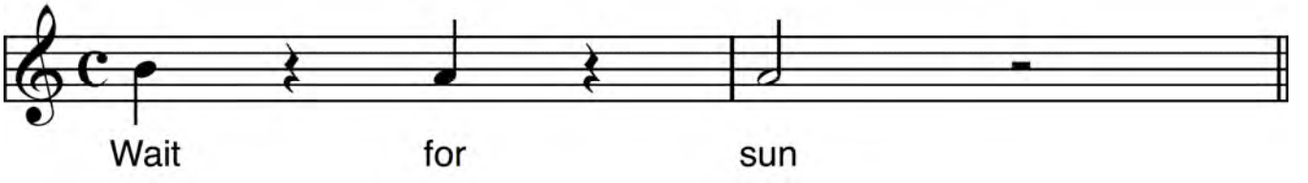
Ex: 10-7 Original Melody



Ex: 10-8 Thinned Melody



Ex: 10-9 More extensive Thinning, leaving rests between the notes



Ex: 10-10 More extensive Thinning with note durations extended to fill in gaps

Exercise: Take a melody of your own and practice Thinning. Try it both with leaving rests, and with filling in the gaps.

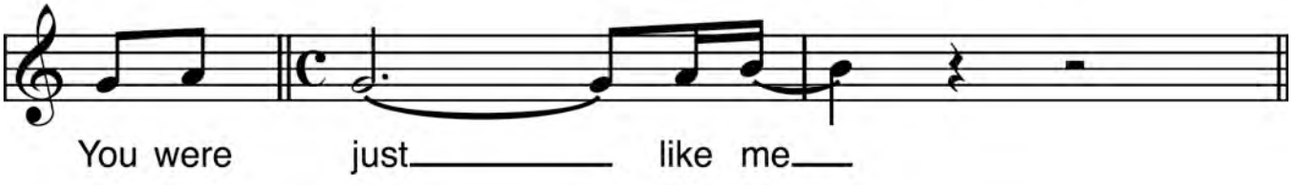
Combining the Techniques

All of the techniques discussed so far can be employed individually, and will supply you with a myriad of new melodic options when used in this manner. It is more common, however, that various techniques be combined together. This can be done consecutively, utilizing one technique after another until the melody is transformed into a masterpiece, or simultaneously, employing several of the techniques at the same time. In either case, here are some examples of mixing these techniques together, to alter the many different parameters of a melody in various ways:

Example 1

Techniques Used
Phrase Start Point is Before the first beat
Long Note on the word "Just"
Syncopated 16th note Rhythm on the word "Me"

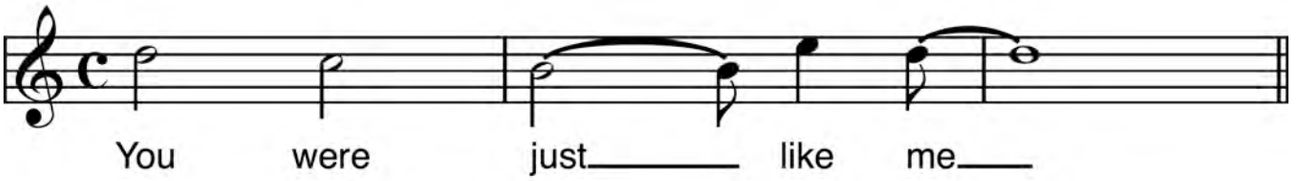
Ex: 10-11



Example 2

Techniques Used
Melodic shape is an Inverted Arch
Note Durations Long
Leap up on the word "Like"
Syncopated rhythms on the words "Like" and "Me"
Long Note on the word "Me"

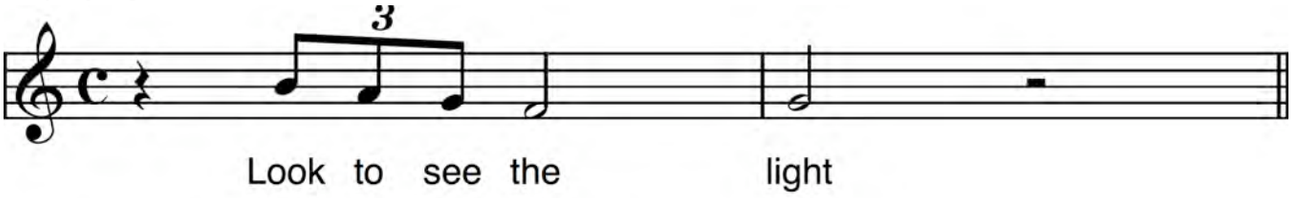
Ex: 10-12



Example 3

Techniques Used
Phrase Start Point is After the first beat
Melodic shape is Descending
Rhythmic Eight Note Triplets mixed with Half Notes

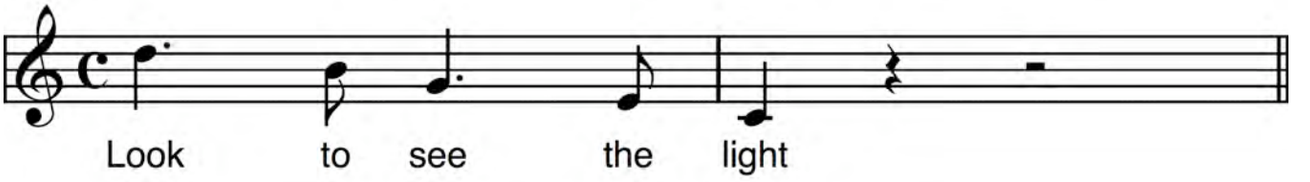
Ex: 10-13



Example 4

Techniques Used
Melodic shape is Descending
Interval Expansion
Rhythmic Syncopation on the words “Were” and “Like”

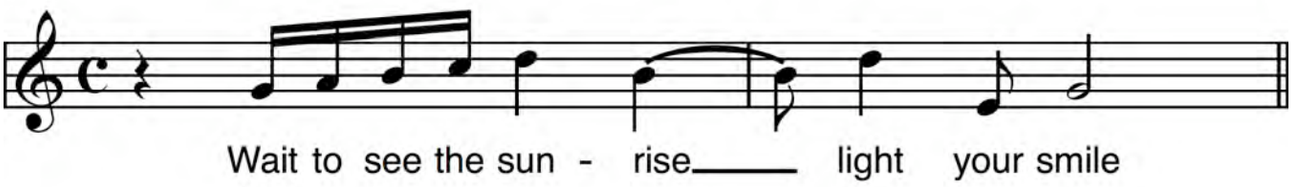
Ex: 10-14



Example 5

Techniques Used
Phrase Start Point is After first beat
Melodic shape is Varied
Sixteenth notes on “Wait to see the”
Leap down on the word “your”
Phrase Length expanded

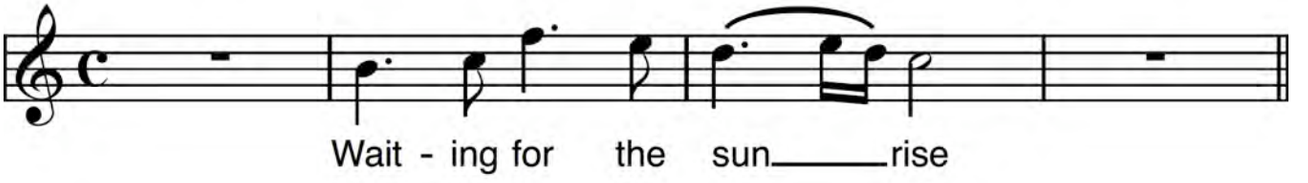
Ex: 10-15



Example 6

Techniques Used
Rhythmic Displacement (start on weak measure)
Tendency Tones (7-1, 4-3) provide direction
Ornamentation on "Sun."
Syncopation on "-ing," and "the."

Ex: 10-16



Exercise: Set up a practice routine, experiment with each of the techniques for developing single melodies on a regular basis. Apply these principals to your own songs as you are editing them. When you are in the initial creative writing phase of your songs, you can experiment these techniques, but if you feel that it stops the creative flow, limit their use of them to editing. Once the tools become more second nature you will find yourself naturally applying them during the creative writing phase. When you are first learning them, however, they will still be analytical concepts that could draw your focus to the wrong side of your brain for creativity. Once internalized, they will become tools that actually enhance your creativity rather than hinder its flow.

Conclusion

We have covered a lot of different techniques in Part 3 of this book, and there are now several things that need to be pointed out. First of all, you can't just read about these techniques and expect to become a better songwriter. You have to actually practice them each individually until you gain facility with them. Secondly, once you become fluent with these techniques, many or them will become second nature, and you won't have to think about them as much. They will become part of your intuitive creative process.

At first, the new techniques may cause some over-analyzing, during which times they could limit the creative flow. To resolve such dilemmas if they arise, segment your

songwriting time into two periods: one, unhindered creativity (the creative side); and two, practicing new techniques and editing (the analytical side).

As the techniques become internalized, you will usually find yourself combining several of them at once, without even thinking about it. Having these tools under your belt will then enable you to easily isolate each parameter of a melody, one at a time, during the editing process, which will help you take any average song to the level of a hit song very quickly. Editing is the main skill that differentiates average from professional songwriters. With any melody, don't just settle on the first thing that comes to mind for the final product. Sometimes the first one will turn out to be the best, but most of the time you can kick it up a notch or two through experimenting, and sometimes quite a bit more. The techniques covered so far will be some of your primary melody creation and editing tools to help you accomplish this, and truly become a master of your craft as a songwriter.

PART 4:
SONG SECTIONS

Now that you have learned many methods for generating an endless flow of melodic ideas, and have acquired dozens of amazing tools for developing them into fantastic melodies, it will be fairly easy to build them into entire song sections, such as verses, prechoruses, choruses, and bridges. Creating brilliant song sections with your melodies will be the focus of Part 4.

11. Rhythm of Sections

Repetition and Variation verses Contrast

There are two primary ways to build a melody into a song section. The first is through the use of Repetition and Variation, and the second is through the use of Contrast. Repetition and Variation is the most common way to develop a single melody into a whole section of a song. A phrase is repeated, and it is then varied using rhythm and pitch development techniques. Contrast is another way to build a single melody into a song section. Rather than repeating a phrase and then varying it, the initial phrase can simply be followed by a completely new melodic idea.

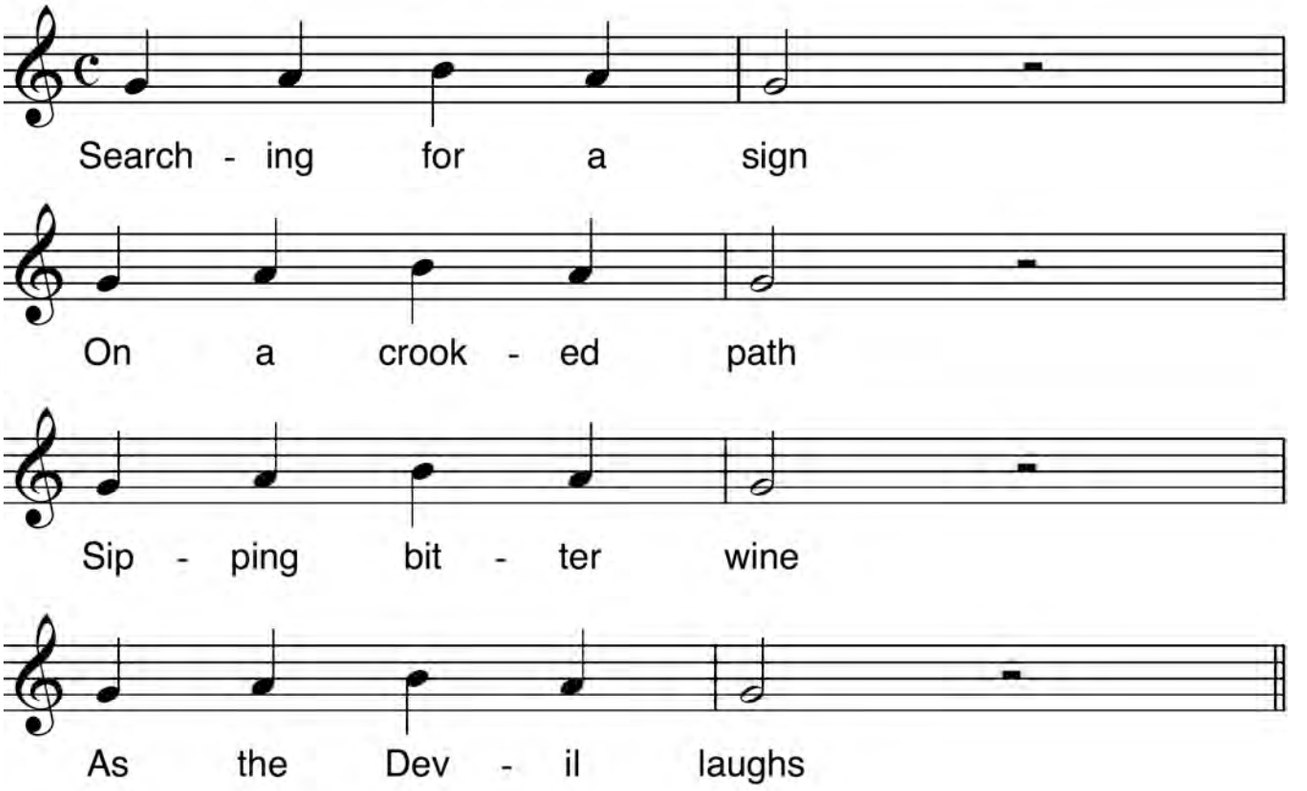
For educational purposes, we will be primarily using repetition to develop song sections. We will then utilize the rhythm and pitch development techniques from the previous sections, in addition to many new ones, to vary the phrases. But keep in mind that developing a section with contrasting phrases, and adding some level of repetition to the section to hold it together, can be used from just as effectively.

As we move along, keep in mind that as a general rule, too much repetition will create monotony, and too much variation or contrast will create a lack of cohesiveness. It is the balancing of these factors that will create great song section.

Common Meter

When forming song sections utilizing repetition, we will develop them into what is referred to as a section of Common Meter. This is a term taken from the study of poetry. It is the most basic structural unit of a section of lyrics or music, and it is also the most widely used. In music, it is analogous to an eight-measure section that utilizes four 2-bar melodic phrases. There have been many variations on this basic structure over the centuries, but to this day it is still the most commonly used for both song sections and compositions. Learning to master song structure within common meter before delving into more creative and unique structures is an essential skill for songwriters. Below is a song section in Common Meter.

Ex: 11-1



The examples will be purposely kept very simple so that we can focus on one technique at a time, however, they will gradually increase in complexity. When you apply these techniques to your own songwriting you can combine many techniques, making your phrasing as complex or as simple as is appropriate for the particular song.

The art of masterfully applying repetition lies not in repeating a new phrase exactly as the previous one, but in creating variations of the original. Listeners want to hear something familiar, yet be surprised enough to stay interested. This combining of the familiar with surprises is the key to creating captivating songs that will hold a listener's attention.

We will be applying the rhythm and pitch techniques already discussed, to the development of multiple phrases. We will also be using many new techniques for developing song sections. These new techniques are only applicable when there is more than one melody line, which is why they were not discussed in previous sections.

Open Verses Closed Sections

We have already discussed the fact that if a phrase ends on an unstable pitch it will remain open, like a question waiting for an answer. The answer, in that case, would be another phrase that resolves the unstable pitch to a stable one, and that ends on a stable pitch itself. When we talk about song sections, however, there are many additional rhythmic components to phrases within a section, which will leave them either open or

closed. A closed section will have a sense of finality to it, whereas an open one will propel it into the next part of the song. Gaining facility at creating and balancing open and closed phrases and sections is an essential part of the songwriter's bag of tricks. The primary criterion for determining if a section is open or closed, in addition to pitch tendency tones, will have to do with the Symmetry and Balance of the section.

Symmetry Versus Asymmetry

A Symmetrical section will sound closed, whereas an Asymmetrical one will remain open. Furthermore, it is often the amount of balance within a section that will determine whether it is Symmetrical or Asymmetrical. We will discuss these topics as we move through the techniques that follow, but below are some factors to keep in mind when determining the Symmetry or Asymmetry of a section.

1) Number of Phrases
2) Length of Phrases
3) Rhythm of Phrases
4) Order of Phrases
5) Pitch Contour
6) Stability of Ending Pitch

Rhythm Tools

The following techniques deal with the rhythm of melodies. We will now apply rhythmic development tools to multiple phrases within a song section. We will begin with techniques you are familiar with, and then progress on to new ones.

- **Phrase Start Point**
- **Note Durations**
- **Long Notes**
- **Rhythmic Displacement**
- **Phrase Endings**
- **Syncopation**
- **Rhythmic Variety**
- **Phrase Length**
- **Space**
- **Extra Line**
- **Speed of Phrases**

Phrase Start Point

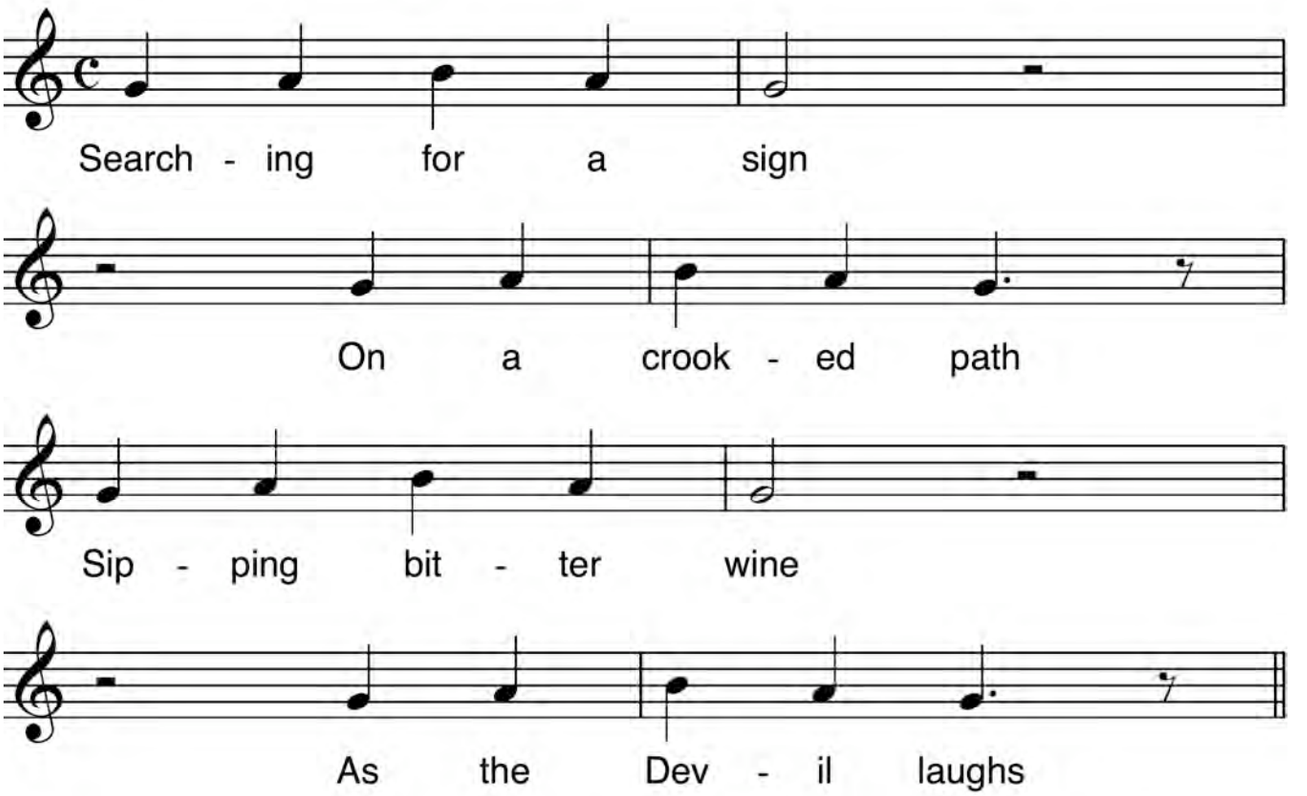
The Start Points of a phrase within a song section can be varied in three different ways:

Starting a phrase ***Before*** the first beat
Starting a phrase ***After*** the first beat
Starting a phrase ***On*** the first beat

When applying different starting points to the phrases within a song section, as a general guideline, it is usually best to stick with two different starting points, and alternate or vary them between phrases. If every line starts at a completely different place, the phrases could sound like they are very unrelated to each other. But you could try this and you might create some really unique song sections, so feel free to experiment. But keep in mind that the two pillars of song structure are repetition and variation. If you have one but leave out the other, the song could quickly fall apart.

In the following example the 1st and 3rd lines start *On* the beat, the 2nd and 4th lines start *After* the beat.

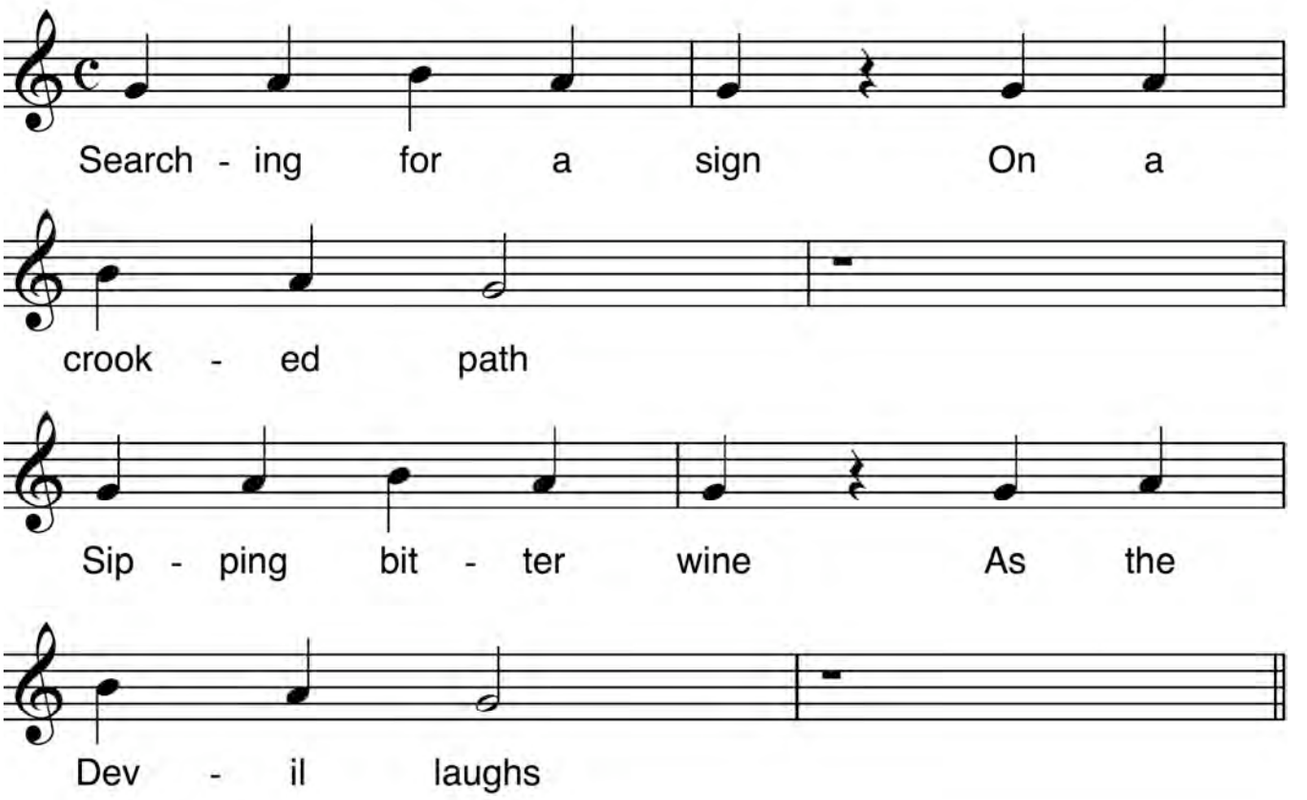
Ex: 11-2



Notice that it is important to slightly shorten the last note of phrases 2 and 4 in order to provide a rest. This is both for space so that the singer can take a breath, and to separate the phrases so that they don't blur into one long phrase.

In the next example the 1st and 3rd lines start *On* the beat, and the 2nd and 4th lines start *Before* the beat.

Ex: 11-3



The lines that are varied do not always need to be the second and forth. You could just as easily vary the first and third. Additionally, some interesting phrasing can emerge by varying the two inner lines, or the two outer ones. Furthermore, varying only the last line of a section can have a nice connecting effect that will lead it more smoothly into the next section of the song. Doing this would create an Asymmetrical section, which is a common feature of a section that is designed to maintain momentum into the next part of the song.

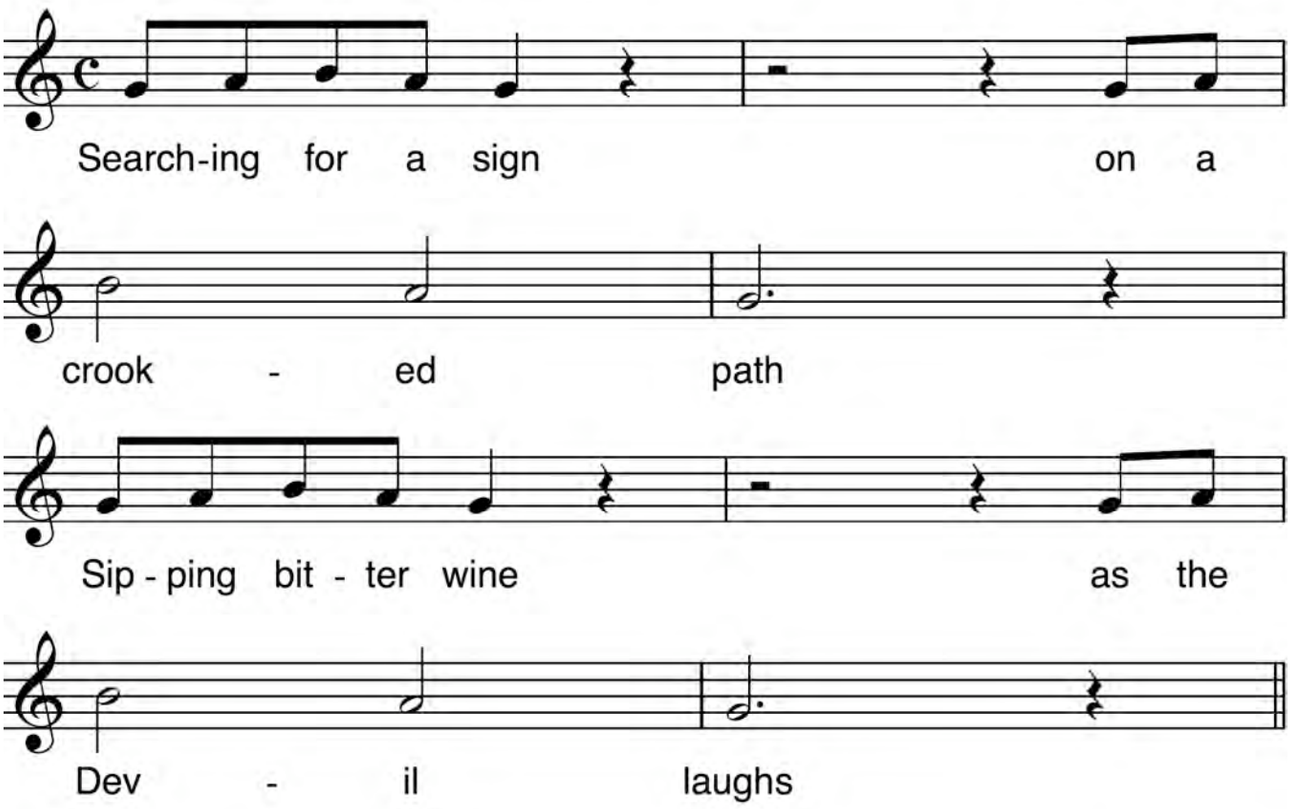
Note Durations

Changing the length of a phrase by increasing or decreasing the note durations is a great way to add variety to a song section. This can be accomplished by following a phrase that is constructed with notes primarily of one type of duration, with a phrase that has either longer or shorter notes. If you recall, we divided the type of note duratios into three different general categories. They were as follows:

Short Note Durations
Medium Note Durations
Long Note Durations

In the following example, the 1st and 3rd phrases have shorter durations, and the second and forth ones have longer note durations. Notice also that in the 2nd and 4th phrases, the start has been shifted *before* the beat with short durations, and then move into longer ones. Depending on the particular melody you start with, it can sometimes be difficult to isolate and modify just one parameter and make it sound musical. You will often find yourself combining several different techniques at once when modifying phrases.

Ex: 11-4

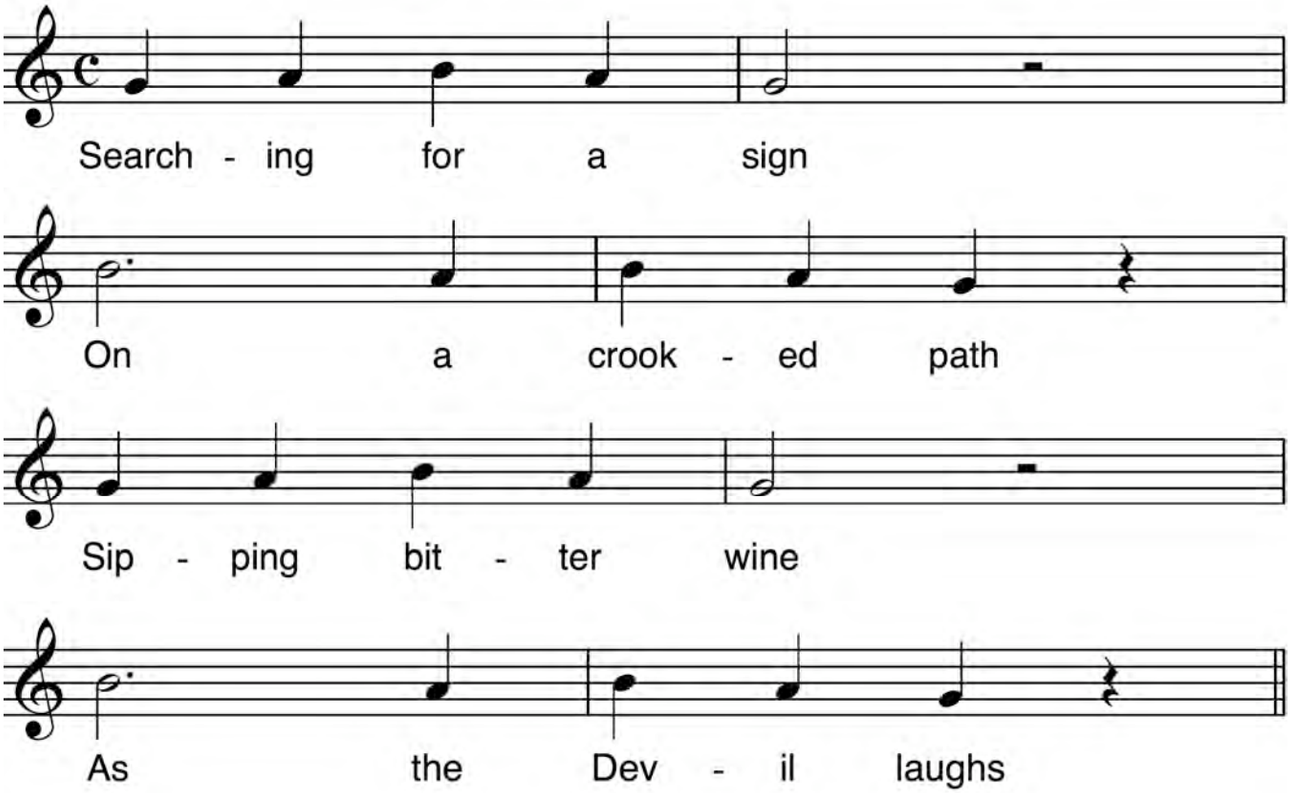


Long Notes

Applying individual Long Notes is a great way to very quickly vary your phrases. For example, if the 1st phrase doesn't have any notes that are held out, you could try either holding out a note or two in the 2nd phrase, or keeping the 2nd phrase the same and holding out some in the 1st. You can experiment with each of the pitches of the phrase, to hear which ones sound best when held longer.

In the following example, the 2nd and 4th lines have the first note held out for three beats, while the others are only held out for only one beat each. This has the additional effect of extending the length of the 2nd and 4th lines.

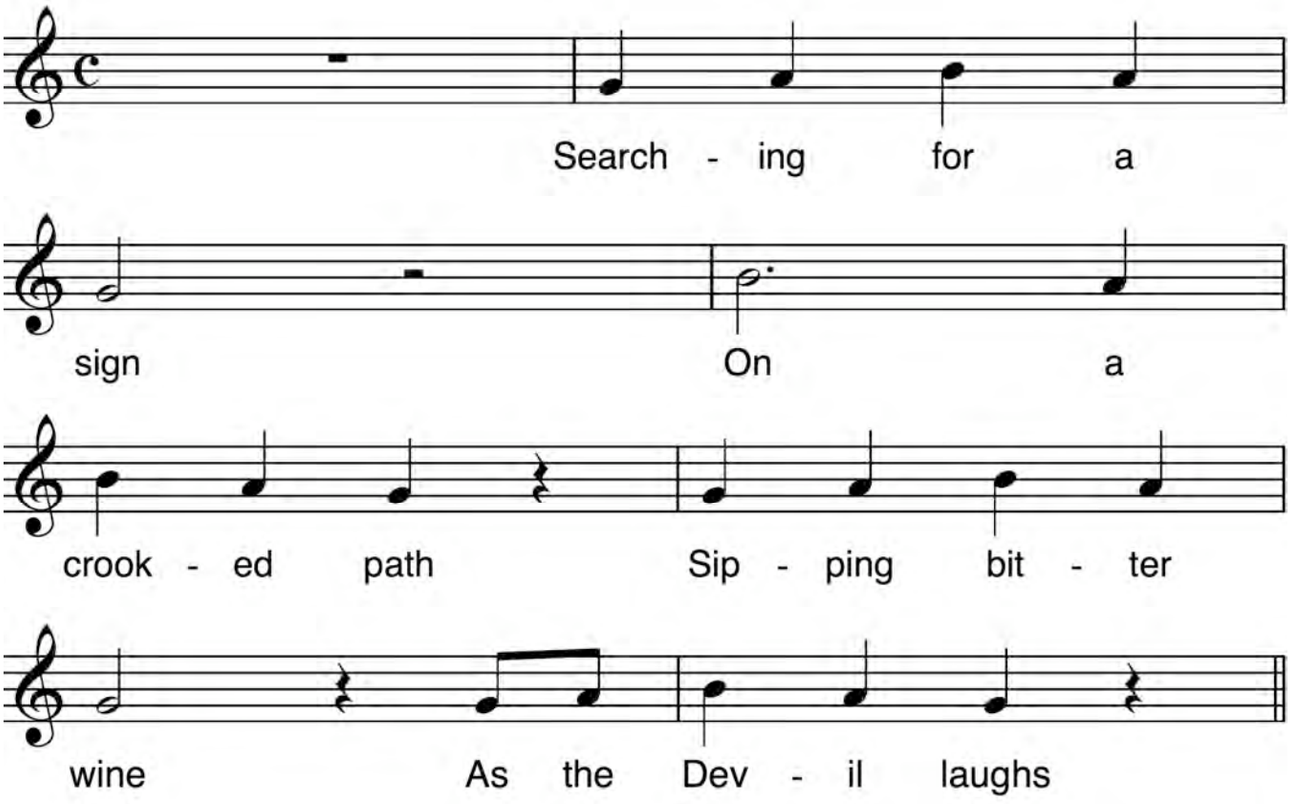
Ex: 11-5



Rhythmic Displacement

Whether phrases begin Before, On, or After the beat, they are usually more–or-less aligned with the first measure in each line. This is due to the fact that within any equal division of two or more groups of evenly divided measures, there will be strong and weak measures. Aligning phrases with the strong measures, as is commonly done, will make songs sound more stable, just as accenting a word properly will make lyrics sound right. Rhythmic Displacement aligns phrases with the weak measures within a section, and can create interesting multi-layered, overlapping effects. This will sometimes sound unusual, but can add depth and rhythmic complexity to your writing.

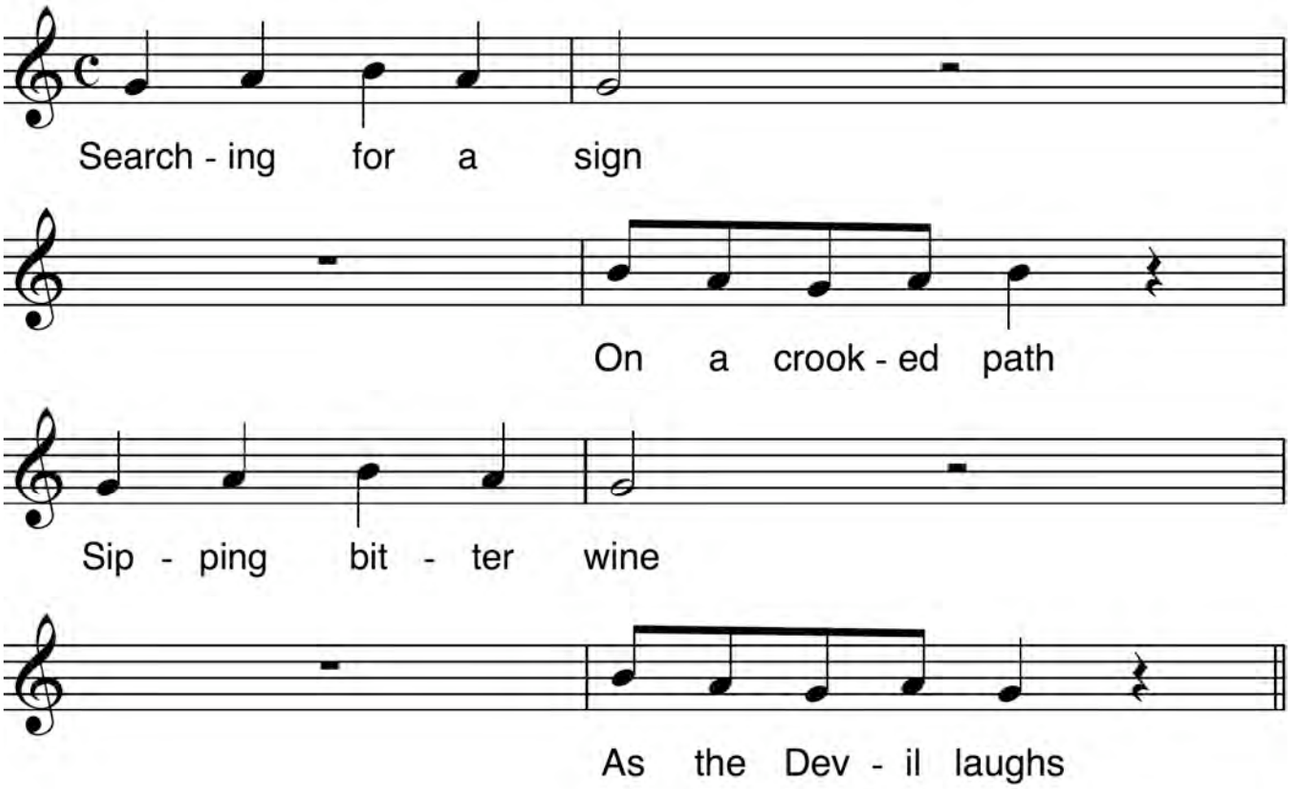
Ex: 11-6



Sometimes, in order to fit rhythmically displaced phrases in an even number of measures, the start point may need to be shifted, or the note durations shortened, for the final phrase. In the example above the last phrase utilizes a little of both, by both beginning with shorter note durations, and shifting the start point to Before the downbeat of the 8th measure. When choosing not to alter the phrasing, an asymmetrical 9-bar section would be the result. An off-balanced section like that would create a strong pull into the next part of the song, which would be left with the job of utilizing various techniques to balance it. Another option would be to extend the section to 10-bars, but that might leave too much empty space in measure 9 and 10 to keep the momentum of the music going.

The example below employs Rhythmic Displacement alternately, by varying In-Sync phrases with Out-of-Sync phrases.

Ex: 11-7



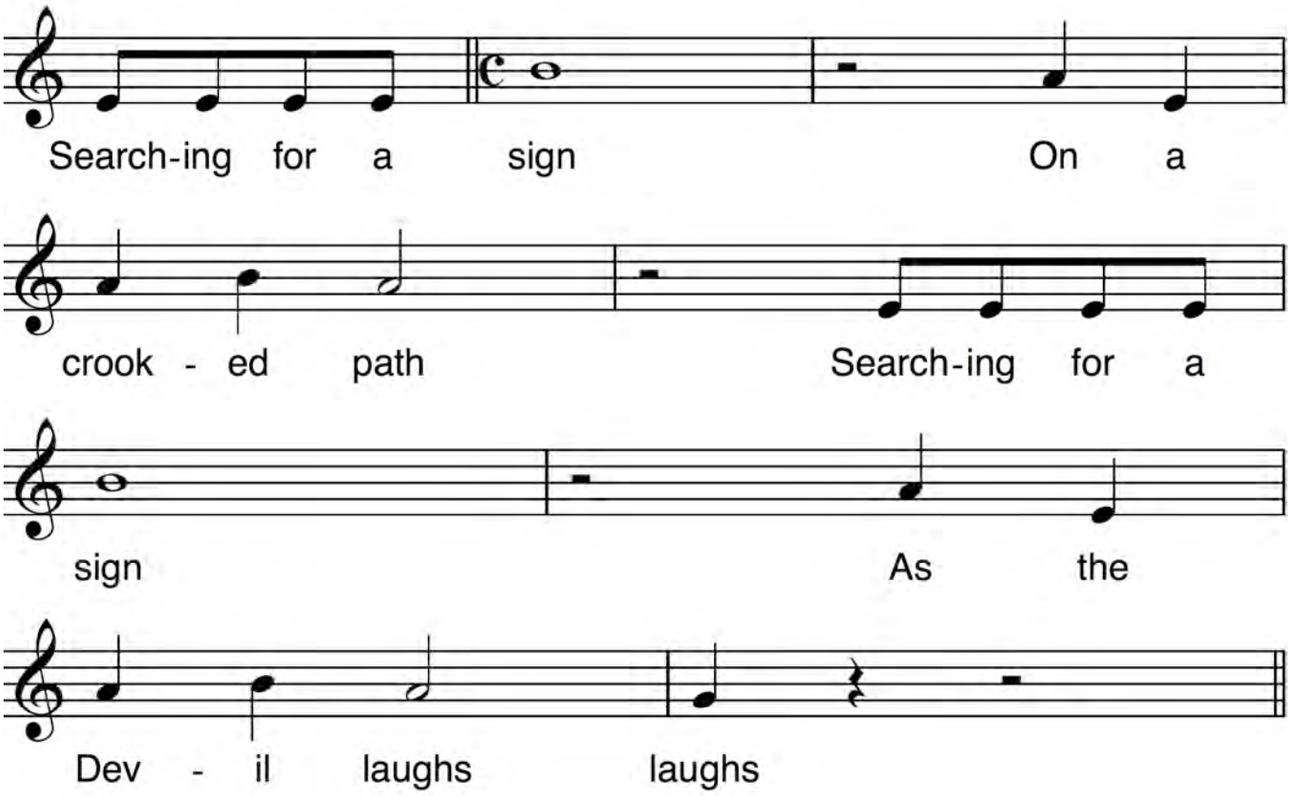
Notice that the 2nd and 4th phrases use shorter note durations so that they can be rhythmically displaced without the phrases running into each other.

Phrase Endings

The Phrase Ending technique focuses on the placement of the last note of a phrase rather than the first. The ending placement of the last note can be aligned with any beat, but the technique is most commonly used in relation to the downbeat of a strong measure.

In the example below, notice how the 1st and 3rd phrases each end on the downbeat. We are using this section as a chorus, with the phrase "Searching for a sign" as the title. The title is repeated in lines 1 and 3, where the word "Sign" is emphasized, by being placed on the downbeat of measures one and five. It is further emphasized with a long note that is held out for four beats. The other two contrasting phrases have different end points.

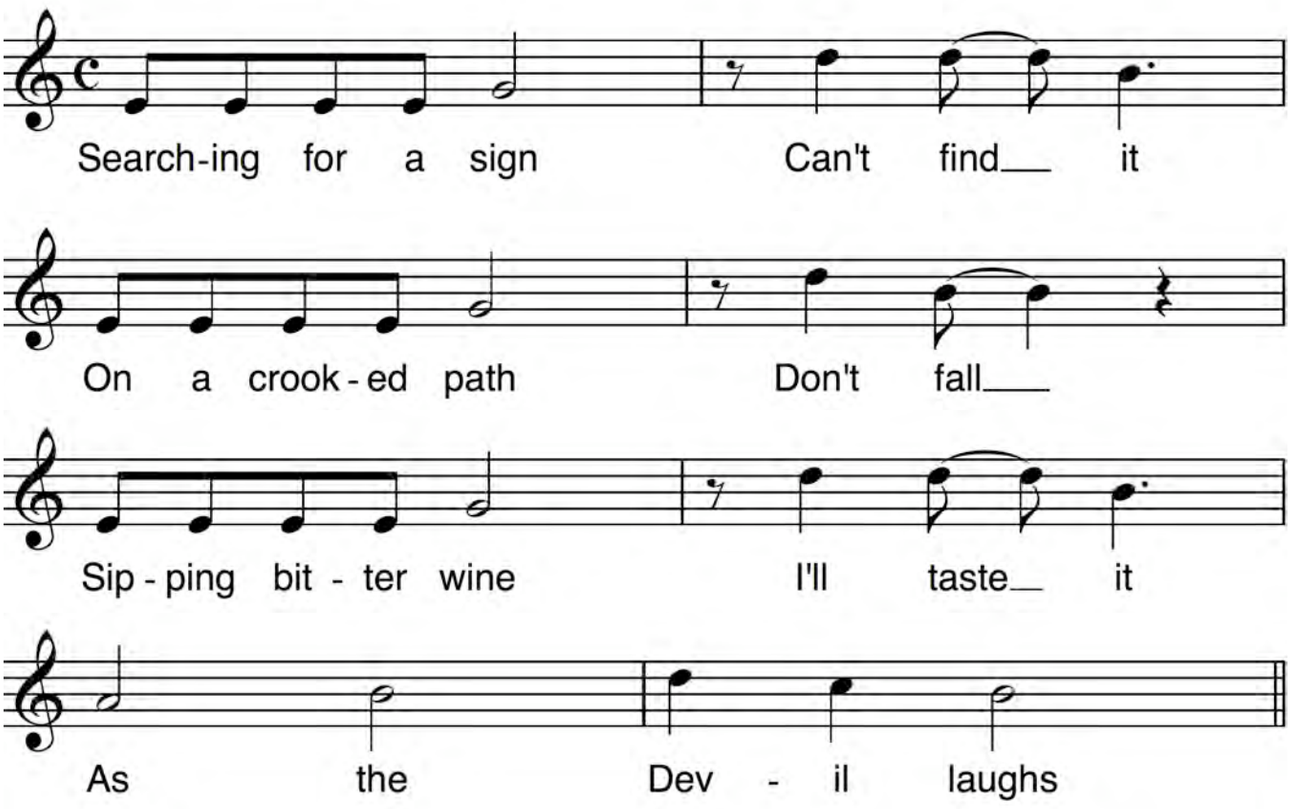
Ex: 11-8



Syncopation

If one phrase uses primarily straight rhythms, it can be varied with a more syncopated phrase. Notice in the next example that a contrasting phrase is inserted right after each repeated phrase. The contrasting phrases are syncopated; each note falls on the "and" of the beats; and they are also rhythmically displaced, by being set in the weak measures of the section (bars 2,4, and 6). This is a common setting for a call and response between the lead and background vocals. The lengths of the contrasting phrases are varied between three-beats and two-beats long, which further contrasts them from the four-beat repeated phrases. Finally, in the last line longer note durations are used that gradually increase in speed. All in all this creates a very rhythmically interesting asymmetrical section.

Ex: 11-9



There are many other ways to alternate straight and syncopated phrases. Another possibility would be to have one phrase use a majority of straight rhythms and the next use a majority of syncopated ones, rather than all straight or all syncopated rhythms.

Rhythmic Variety

Applying various forms of Rhythmic Variety to different phrases of a song section is a common way to create contrasting phrases.

Here are some rhythmic components that can be varied from line to line:

1) Different Note durations

Whole Note	**4 beats long**	**1 per measure**
Half Note	**2 beats long**	**2 per measure**
Quarter Note	**1 beat long**	**4 per measure**
Eighth Note	**½ beat long**	**8 per measure**
Sixteenth Note	**¼ beat long**	**16 per measure**

2) Triplets applied to any of the above durations

2 Whole Note	**3 Whole Note Triplets**	**spans 8 beats**
2 Half Note	**3 Half Note Triplets**	**spans 4 beats**
2 Quarter Note	**3 Quarter Note Triplets**	**spans 2 beats**
2 Eighth Note	**3 Eighth Note Triplets**	**spans 1 beat**
2 Sixteenth Note	**3 Sixteenth Note Triplets**	**spans ½ beat**

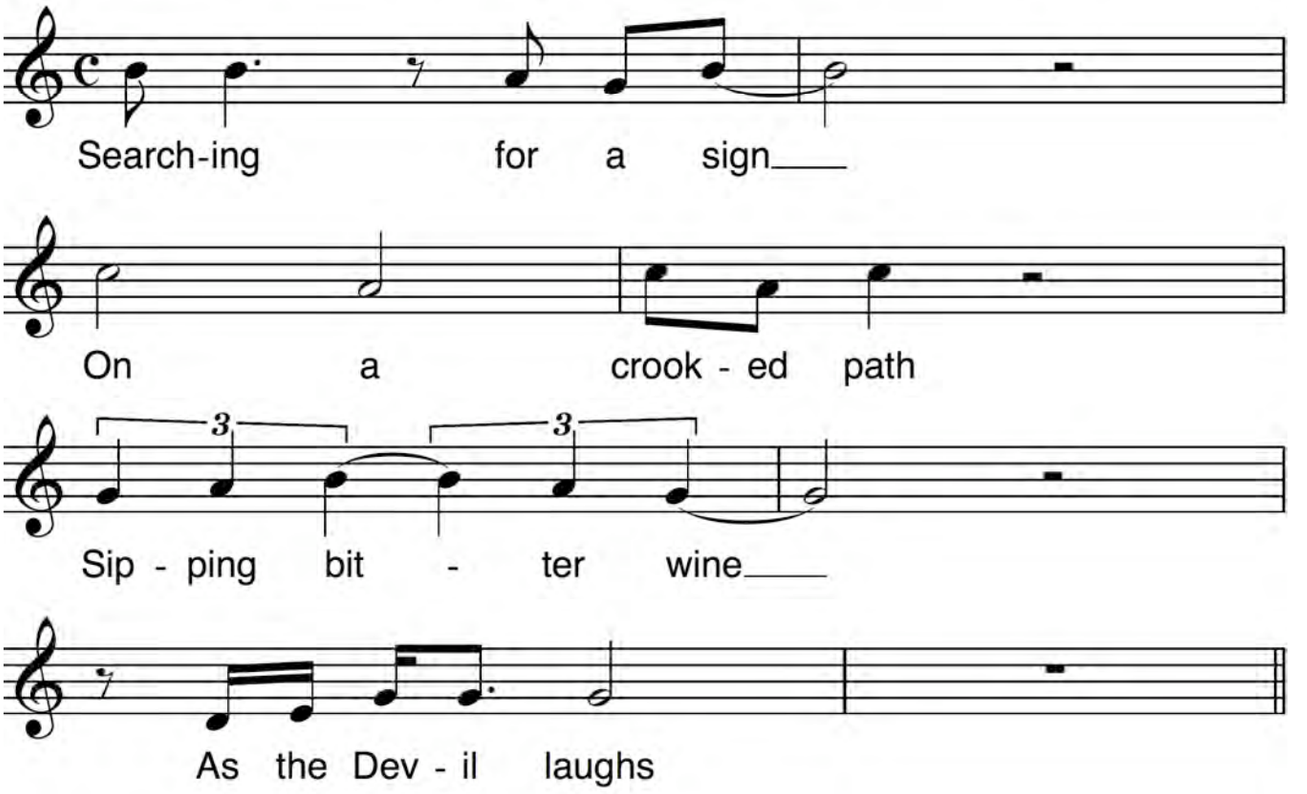
3) Syncopation: placing notes on the subdivisions of the beats, rather than squarely on the beats.

4) Rests, mixed in between notes of a phrase

You can review the section on Rhythmic Variety from that chapter for more in-depth details on applying different rhythms to a melodic phrase.

Below is an example that employs many different rhythms within the various phrases. If you don't read music, don't worry. Just take a look at the spacing between the lyrics or notes to gain a general understanding of the rhythmic variety here. Remember that these techniques are designed as tools for your own creativity, therefore learning to master the exact rhythms that I have written would not be nearly as worthwhile as gaining a general understanding of rhythmic possibilities, and creating your own.

Ex: 11-10



Line 1 uses Syncopated Eighth Notes, and is broken up by an Eighth Note Rest.
Line 2 uses Straight Half Notes, Eighth Notes, then a Quarter Note.
Line 3 uses Quarter Note Triplets with the third and the fifth note held into the next beat.
Line 4 starts with a rest, and then uses some fast Sixteenth Notes, and gradually slows down to end with a Half Note.

There is actually too much rhythmic variety within this section to create any type of cohesiveness. A little more repetition would have brought some balance to the section. The rhythms were a bit overdone merely to present some examples of different rhythmic possibilities

There is an endless amount of ways to utilize rhythm, and one can quickly get lost in all of the possibilities. The best way to implement rhythmic variety is to experiment with your own melodies until you find a rhythmic phrasing that you like, and then keep some consistency with it from line to line. If every line has a completely different rhythm to it, like the section above does, your song section could lack enough repetition to hold it together well.

Phrase Length

Varying the length of phrases is by far the most commonly used technique to develop contrasting lines. We have already examined Extension and Truncation of a phrase in a previous section of the book. There are four more possibilities for adjusting phrase length that apply when dealing with multiple phrases. They are Combination, Fragmentation, Elision, and Conjunction.

Phrase Length Techniques

Extension: Adding new notes to an existing phrase to make it longer.
Truncation: Subtracting notes from an existing phrase to make it shorter.
Combination: Combining phrases together.
Fragmentation: Breaking up an existing phrase into segments.
Elision: Combining phrases by dovetailing the last note of one with the first note of the next.
Conjunction: Combining phrases by adding new notes to connect them.

If every line is a completely different length, the song section will lack cohesiveness, and could sound like a random group of unrelated phrases. Therefore it becomes necessary to maintain some repetition within the phrase lengths. The examples below will mix repetition with variation to accomplish this.

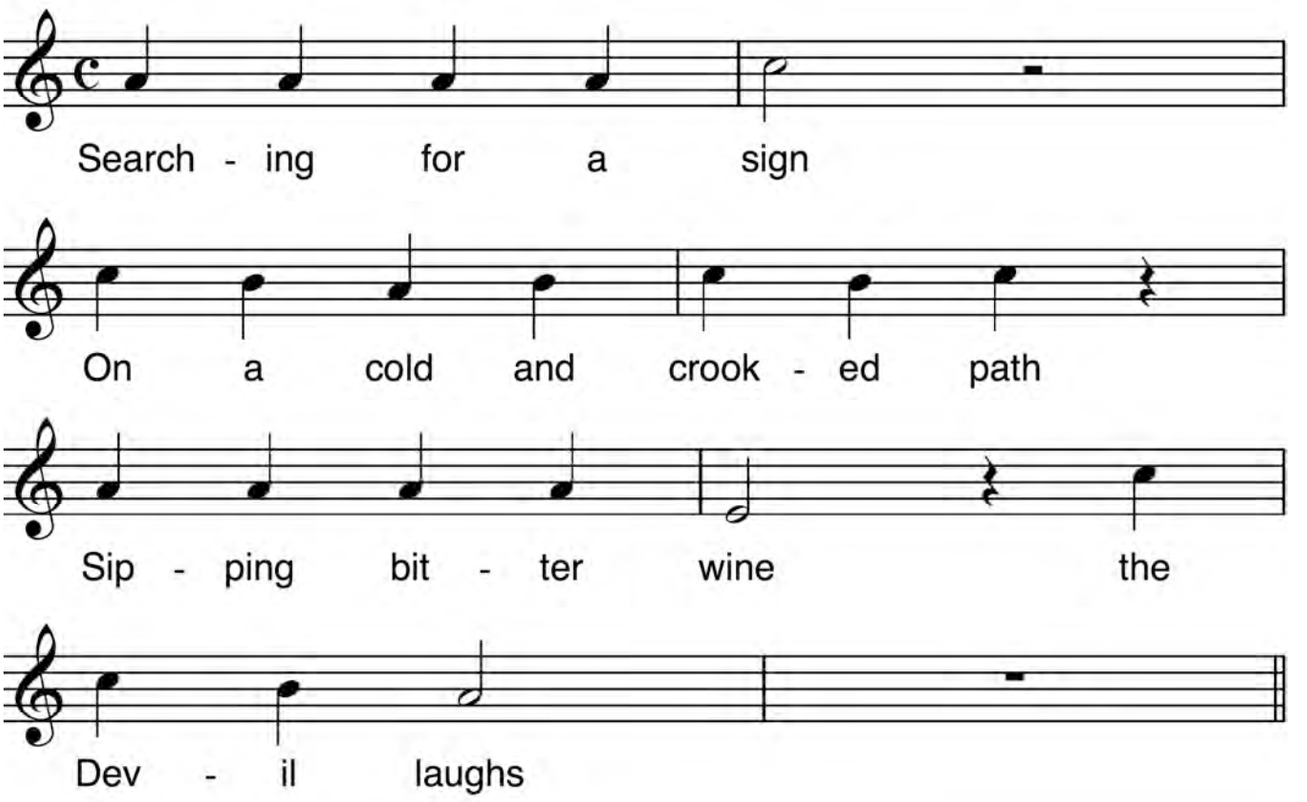
Extension and Truncation

Four common ways to employ Extension and Truncation are:

1) Repeat a phrase and make every other line Longer
2) Repeat a phrase and make every other line Shorter
3) Repeat a phrase and alternate every other line between Shorter and Longer
4) Repeat a phrase and make only the last line a different length.

The example below uses the third method; the second line is extended longer, and the forth line is made shorter.

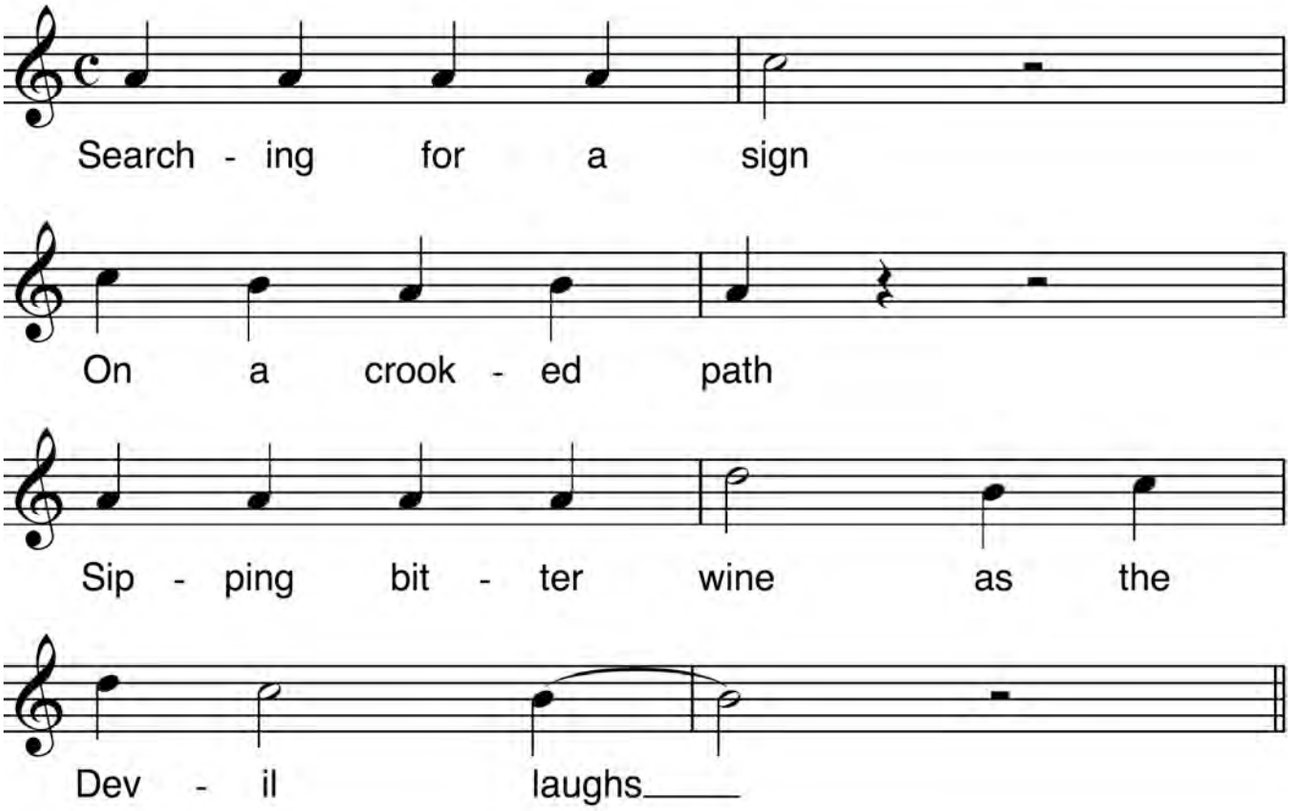
Ex: 11-11



Combination

Below is an example that combines the third and forth phrases into one.

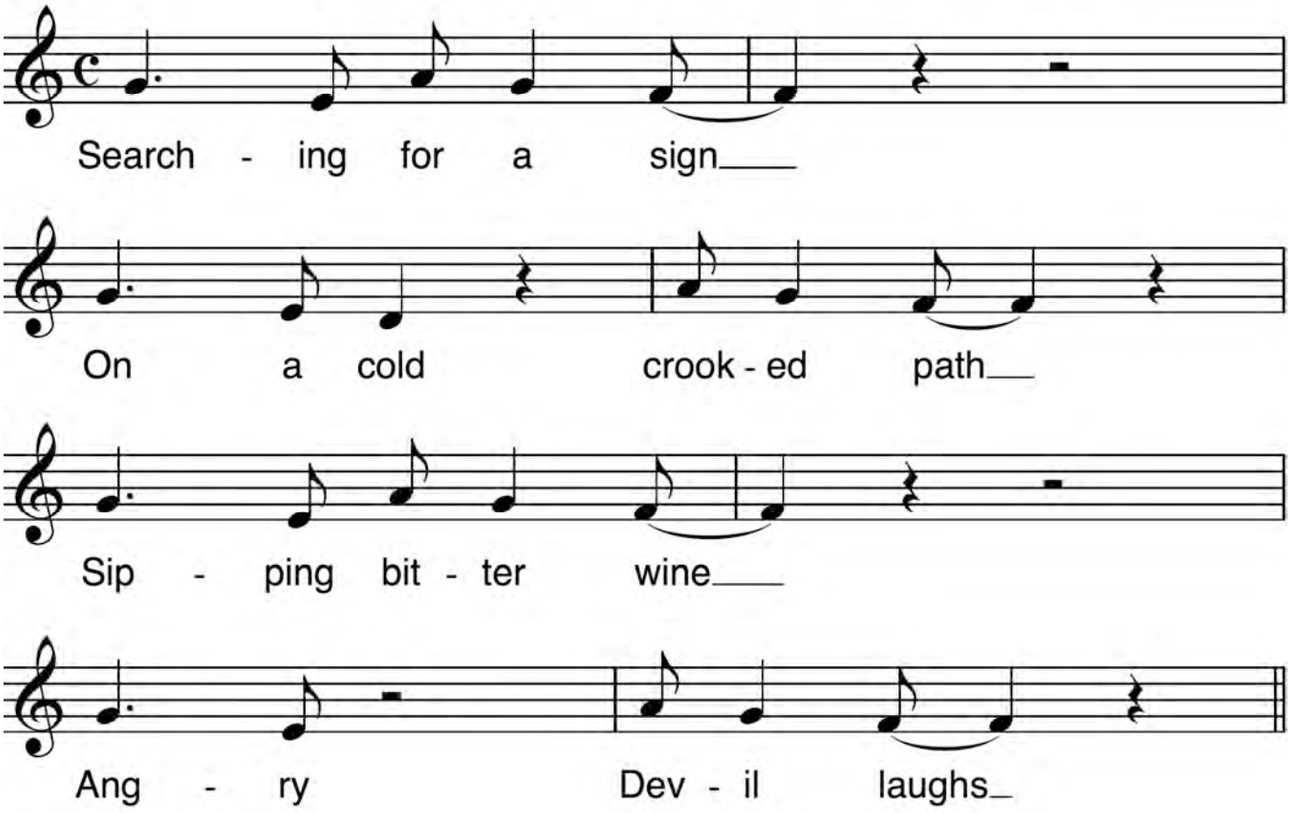
Ex: 11-12



Fragmentation

Below, the melody used in the first and third lines is fragmented in half when applied to the second and fourth lines. You may need to add or subtract a note or two from one of the fragments to make this work effectively, or to fit the lyrics, as the first fragment does in line 2 below.

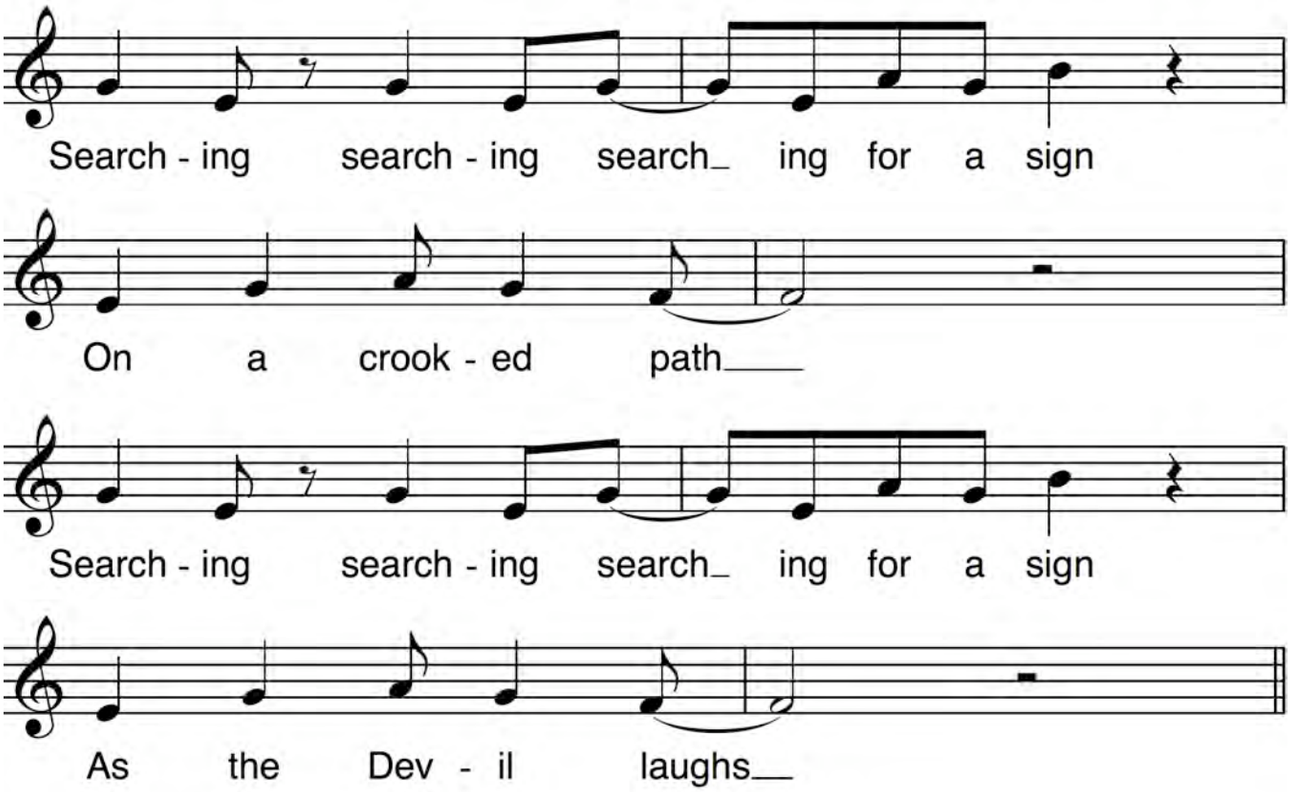
Ex: 11-13



Inner Fragmentation and Repetition

This technique can work really well with a title in which you want to repeat a segment of the lyric. If we create a melody with the phrase “Searching for a sign,” and fragment the first two notes from the rest of the phrase, we can repeat those two notes several times with the lyric “Searching.”

Ex: 11-14

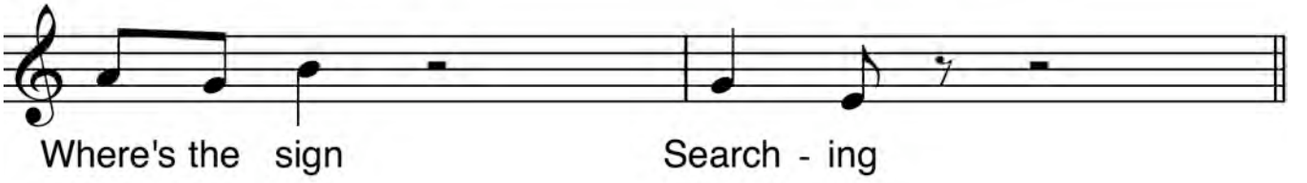


Notice that the third repeat is shifted an 8th note earlier, creating syncopation; it begins on the "and" of 4, instead of on the downbeat of the following measure. This is a way to use syncopation to create anticipation, and forward momentum. In the example above, the third fragment is then connected to the rest of the phrase, but it could have just as effectively remained separated by a rest.

Inverted Fragmentation

Another variation on this technique is to Invert the order of the Fragments. When you do this listeners will still hear the similarity in the new phrases to the original, but it will occur in a new an interesting order. This is an interesting twist that is sometimes applied to an Outro of a song, in which the hook is fragmented and repeated in an inverted order.

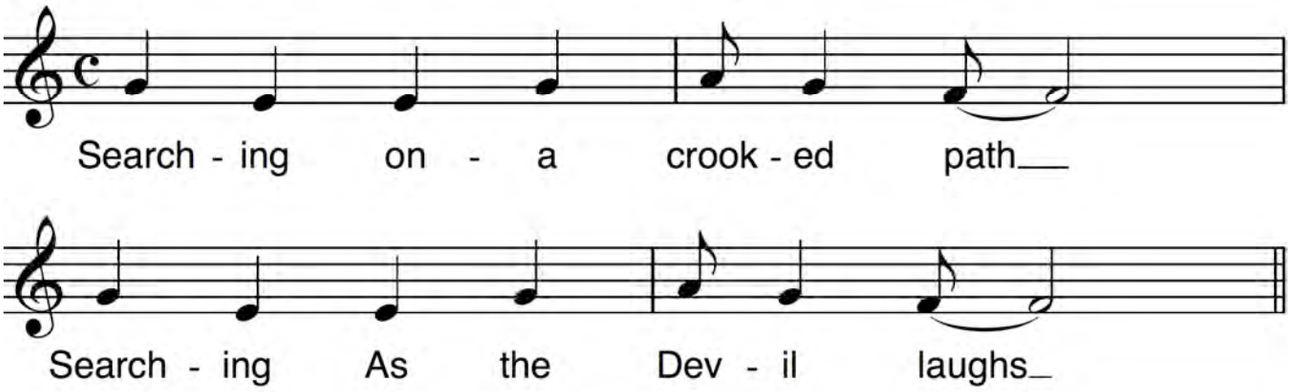
Ex: 11-15



Elision

This is a form of combining phrases that dovetails one into the next. This technique may require deleting some notes from the phrases to allow the melodies to connect well.

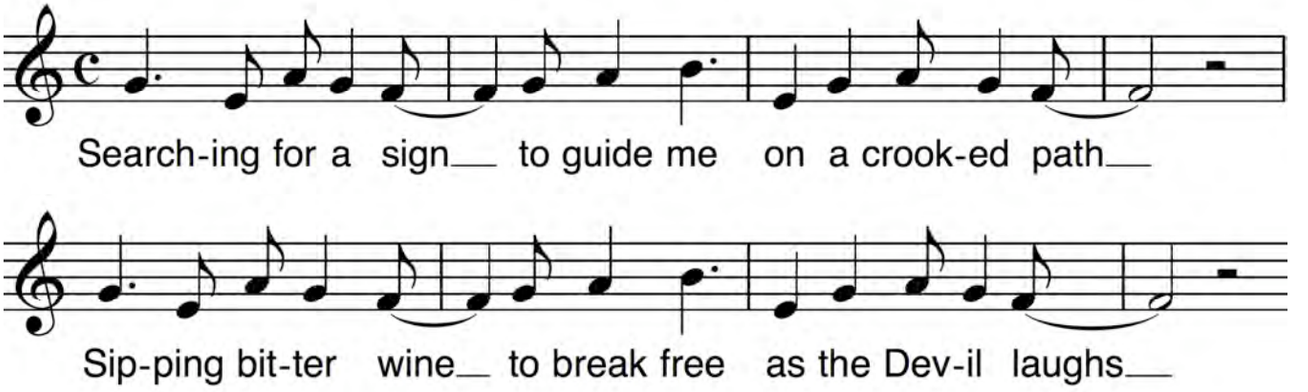
Ex: 11-16



Conjunction

This is a form of combining phrases together while adding notes to connect them. In the example below the notes attached to the words “to guide me,” and “to break free,’ are the extra connecting notes.

Ex: 11-17



* * *

If you only use two techniques to vary phrases, the following two will give you great results:

1) Varying the beginning and ending pitches of different lines.
2) Varying the length of every other line using one of the techniques listed above.

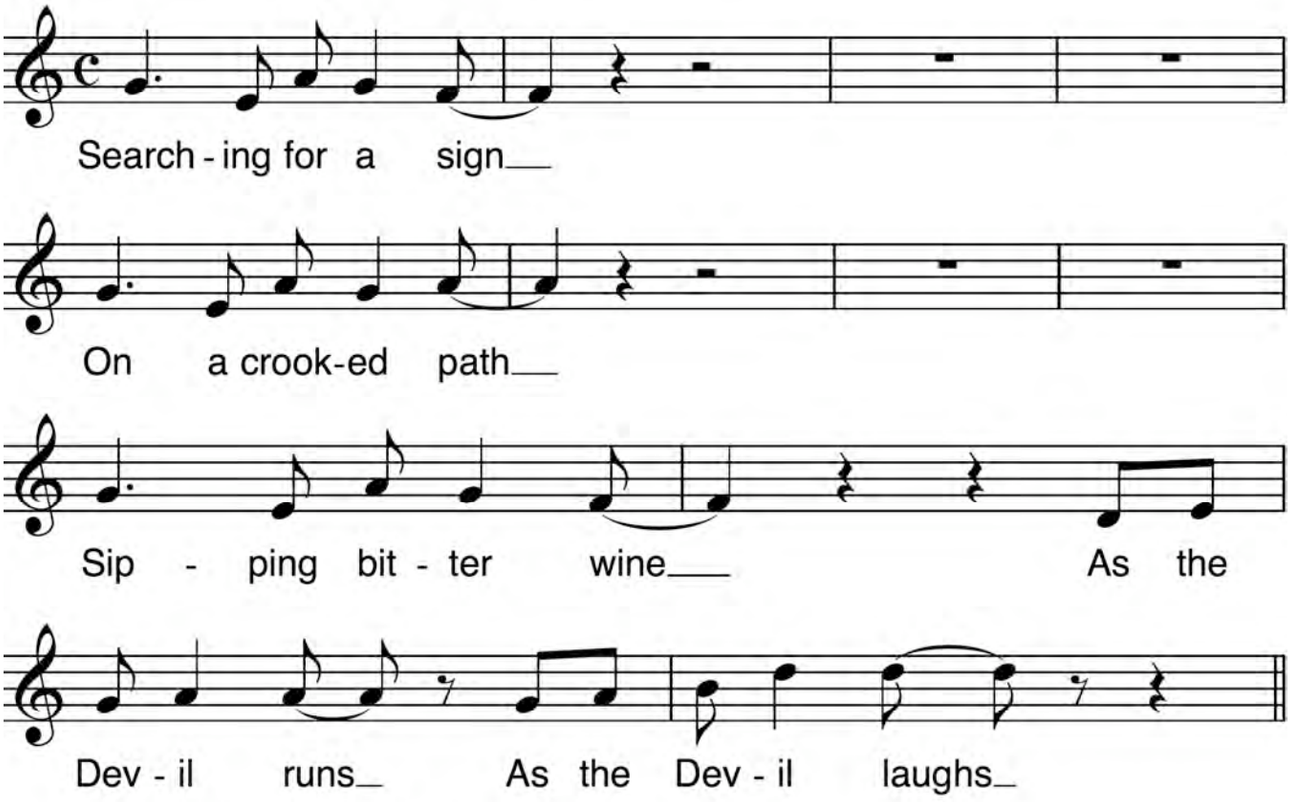
These two alone can often turn a boring and repetitive list of phrases into an amazing song section.

Space

This technique deals with the reverse side of melodies—the space between them. Putting more space between phrases slows down the momentum of the section. Reducing space speeds up the momentum. Space is used by manipulating the amount of rests in the measures, rather than in the melodies themselves.

The following example slows down the momentum in the first half of the section by adding more rests between phrases. It then speeds up momentum toward the end by reducing the amount of rests, and by adding an extra phrase.

Ex: 11-18



In the example above, as more space was added, the 8-measure section became a 12-measure section. However, simply utilizing faster rhythms within the melodies, and leaving the number of measures exactly the same, can also add space.

Extra Line

Instead of having an even number of lines in a section, there could be an odd number of them. This will create an off balanced, or asymmetrical section. Off balancing a section

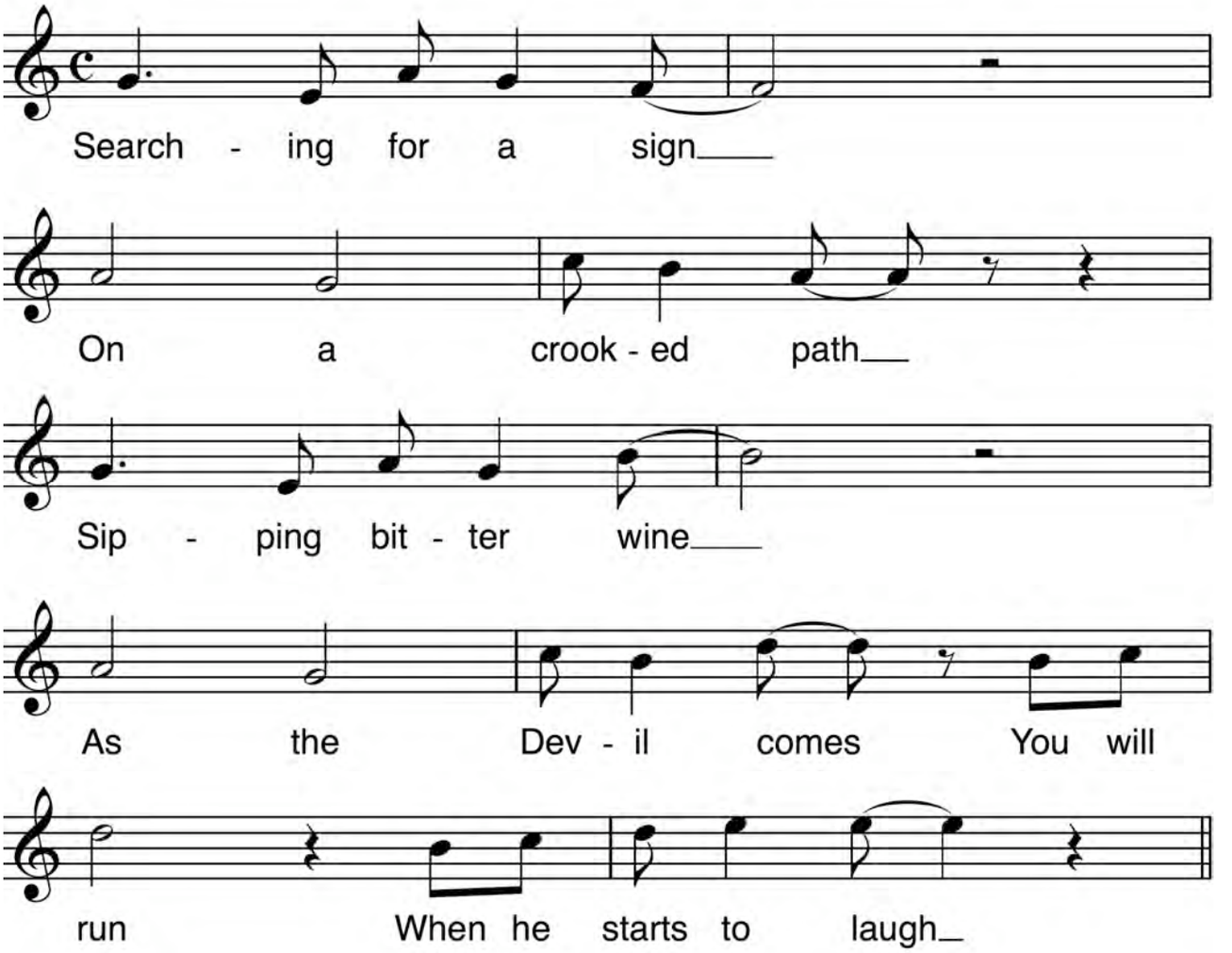
has the effect of pushing the music along into the next part of the song. When this technique is employed, the phrase will often also break away from the repetition with a very different type of phrasing. Doing so accentuates the off balancing, and pushes the phrase even stronger into the next section, creating a very obvious transition.

There are many ways to rephrase the last line to create a stronger effect. Here are some techniques that can be used to modify the extra line in an asymmetrical section.

1) Shorter length of last line by using fewer notes
2) Longer length of last line by using more notes
3) Fragmented last line by dividing it into two or three smaller lines
4) Duration of notes in last line are longer
5) Duration of notes in last line are shorter
6) Start Point of last line varies from that of the others
7) Rhythmic Variation or Syncopation is applied to the last line

In the example below, the off balancing of the extra line creates forward momentum. Also, the extra line is filled with two shorter phrases that have limited space between them. This has the additional effect of speeding up the feel of the music, which creates even more push into the next section.

Ex: 11-19



Speed of Phrases

Controlling the speed of your phrases is an important skill. The first phrase will always set the pace. Phrases can be constant, which will create a steady speed, or they can vary in length, space, rhythmic subdivisions, or in number. These are the main parameters that control speed within a section.

Factors that control the Speed of Phrases:

1) Length
2) Space
3) Rhythmic Subdivisions
4) Number of Phrases

When phrases vary in length, longer ones will cause phrasal deceleration. This can help emphasize a line. Shorter ones will cause phrasal acceleration, which can build momentum. Both of these qualities can be used to create contrast from line to line.

When the amount of space is varied between the phrases, more space will decelerate the speed of the section, and less space will accelerate it.

When they vary in rhythmic speed, the subdivisions within a phrase will either increase or decrease. Long notes, such as half notes and whole notes, will create phrasal deceleration; short notes, such as sixteenth notes, will create phrasal acceleration.

When the number of phrases increases within the same amount of measures, the music will accelerate; when there are less phrases, this will cause deceleration. Adding extra phrases will reduce space and speed up the music; deleting phrases and leaving more space will slow it down.

As you analyze songs of other writers, pay attention to the techniques that are being used to control speed within a section, and throughout the song. It will typically be one of the four parameters mentioned above that either speed up to build momentum, or slow down to create emphasis. Studying the songs of successful songwriters will make you more aware of the many possible variations available to you as you write and edit your own songs.

It is also important to keep the speed of your phrases in Prosody with the lyrics. I am using the term Prosody here as it applies to fitting the meaning of the lyrics to the music, not in the sense of matching accents of words with strong beats in the music, as has been discussed in previous sections. For example, phrasal deceleration could emphasize lyrics that relate to slowing down or going home. Phrasal acceleration could be used with lyrics that have to do with running or trying to get away. You would probably not want phrases about great-grandparents in a retirement home to be coming at the listener like Indianapolis 500 race cars, unless the song was meant to be comical. The use of prosody will be covered in much greater detail in the companion book to this series that covers Lyrics.

Final Rhythm Exercise

Exercise: Take a melody of your own, repeat it four times using different words for each line, and experiment with each of the techniques in this section for varying rhythm from line-to-line. You could easily spend a half an hour trying all the different possibilities with each technique. Do this on a regular basis both as an exercise, and with songs that you are currently writing and editing, and you will quickly become much faster and more intuitive at applying these techniques, and at creating great melodic sections.

12. Pitch of Sections

The following techniques will deal with the pitch component of melodies. We will now apply pitch development tools to multiple phrases within a song section. We will begin with techniques you are familiar with, and then progress on to new ones.

Pitch Tools

- **Scales**
- **Melodic Development Techniques**
- **Contour and Melodic Outline**
- **Intervallic Expansion and Contraction**
- **Permutation**
- **Tendency Tones**
- **Vary Starting and Ending Pitches**
- **Transposition and Sequencing**
- **Inversions**

Scales

Only one scale at a time is normally used for an entire song section in popular music. There are some exceptions to this however. If you are mixing in chords taken from outside of the key, a topic that we will cover in the section on Harmony, you will need to modify your scale to fit the pitches of these foreign chords. This will temporarily change the scale for only the duration of that chord. Aside from that, unless you are doing something extremely avant-garde, you will most likely be using the same scale that you began with to develop the entire song section. Total key changes almost never occur in the middle of a section; they usually take place at the beginning or end. But you may have temporary departures from the primary scale, in order to match pitches to chords that are do not belong to that key.

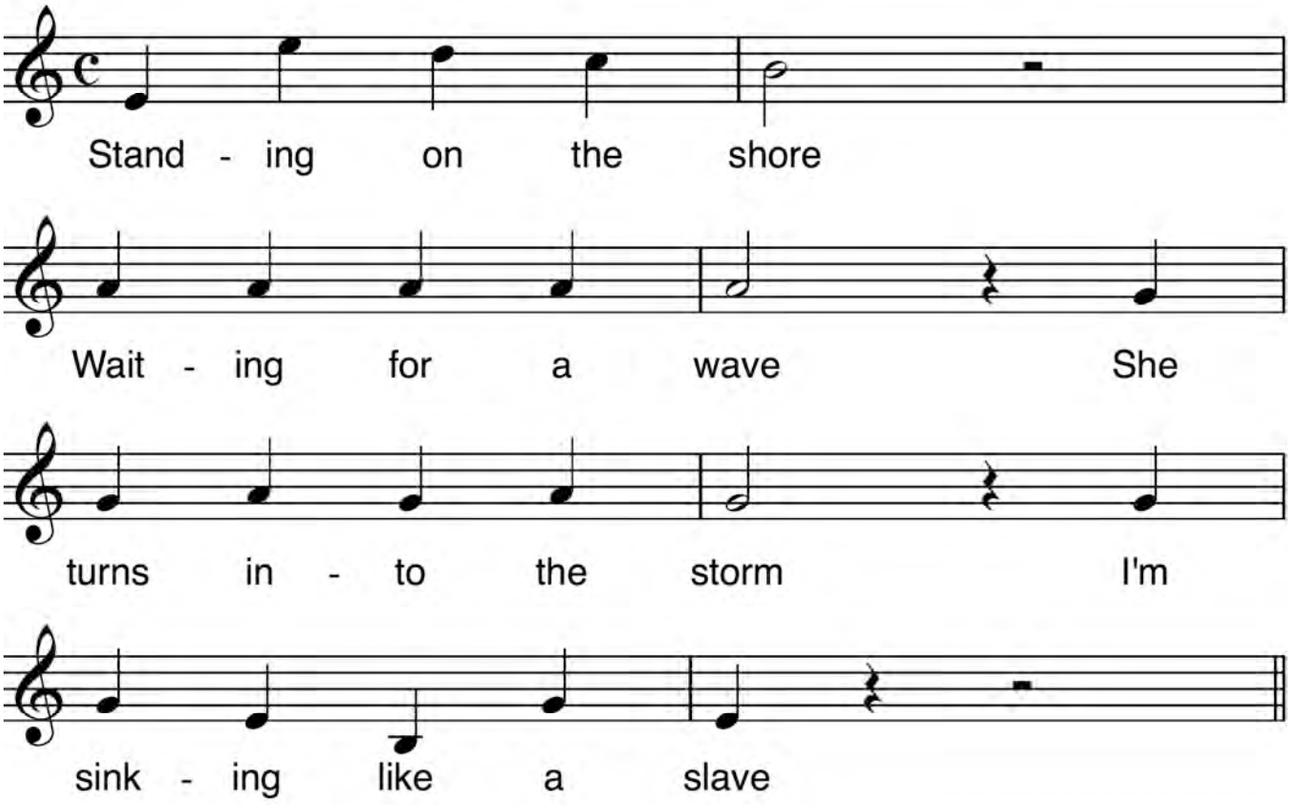
There are other methods that can be used to organize pitches that do not utilize scales, such as pitch-sets, serialism, atonality, and leitmotifs. These are fascinating topics, but they typically lie outside the realm of popular music. These can more easily be explored once you have mastered writing great songs using scales, and as an advanced step, by combining scales to fit more complex chord changes. But for the songwriter who is still putting all these pieces together, stick with scales at first, and stick with one scale for each song. As you develop your ear and your understanding of Harmony you can then begin to add in more advanced techniques.

Melodic Development Techniques

The most common way to vary the pitch of the scale for a repeated phrase is to apply the basic Melodic Development techniques that have already been discussed. They are listed again below.

- Pitch Repetition
- Neighbor Tones
- Skips
- Passing Tones
- Arpeggios
- Scales
- Leaps

Ex: 12-1



In the example above, phrase 1 uses a 1 octave upward leap, and then descends down the scale. Phrase 2 has a repeated pitch on A. Phrase 3 alternates between a G note and its upper neighbor A. And phrase 4 outlines a descending Em arpeggio, in 2nd inversion (the 5th, B, is in the bass, rather than the root, E), which actually descends twice. And due to the fact that arpeggios are just a specific kind of skip, this covers all of the basic melodic development techniques in one example.

You don't need every one of these techniques to develop a good melody. In fact, many melodies will use only several of these per section. But the example above demonstrates that all of the techniques can be easily utilized within the same section while still creating a cohesive whole.

Contour and Melodic Outline

Here is a review of the six types of melodic shapes.

Repeated-Pitch Ascending Descending Arch Inverted-Arch Varied

By simply applying any of these six shapes to various phrases within a song section, you can construct some very appealing melodic contours. Remember that the varying of melodies needs to be balanced with repetition. You probably would not want to have the first melody go up, the second go down, the third stay on the same pitch, the forth go down and up, etc. There would not be enough consistency to make the melodies sound like they were related to each other. You could try applying a completely different melodic shape to every line, and you might come up with something really unique. I encourage you to experiment with all of the guidelines in this book. Innovators in music learn how to break the rules of convention, and many new styles of music have been invented as a result. But most of the time, some consistency is needed to hold a song together.

One approach to Melodic Contour is to use two different melodic shapes and alternate between them, as in the examples below.

Phrase 1: Ascending
Phrase 2: Inverted-Arch
Phrase 3: Ascending
Phrase 4: Inverted-Arch

Or

Phrase 1: Descending
Phrase 2: Repeated Pitch
Phrase 3: Descending
Phrase 4: Repeated Pitch

Another approach is to keep the first three lines consistent, and surprise the listener with a variation in the last line, as in the next example.

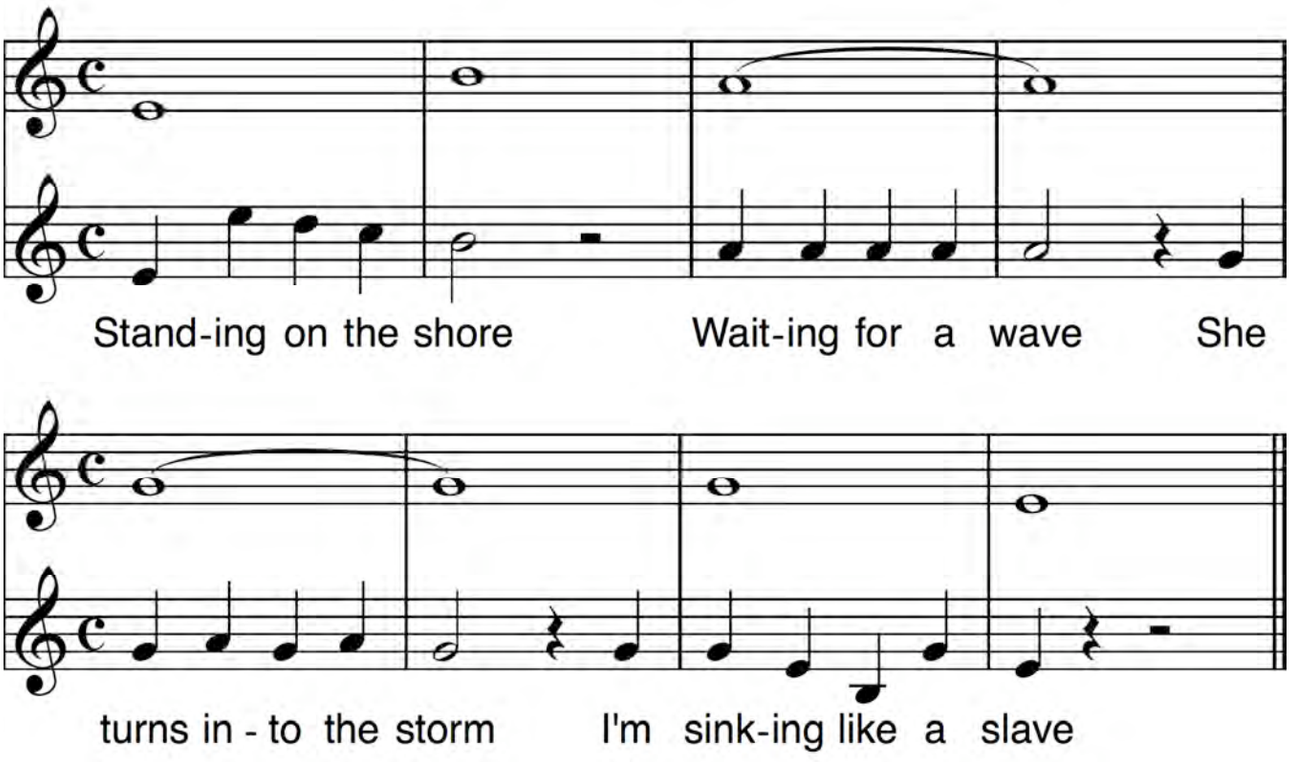
Phrase 1: Descending
Phrase 2: Descending
Phrase 3: Descending
Phrase 4: Ascending

This method of mixing variation and repetition often maintains a good balance between Expectation and Surprise, which is necessary to create captivating songs. Changing

melodic shapes from phrase to phrase will add variety to a song section, and too much of any one shape will create monotony and a lack of balance.

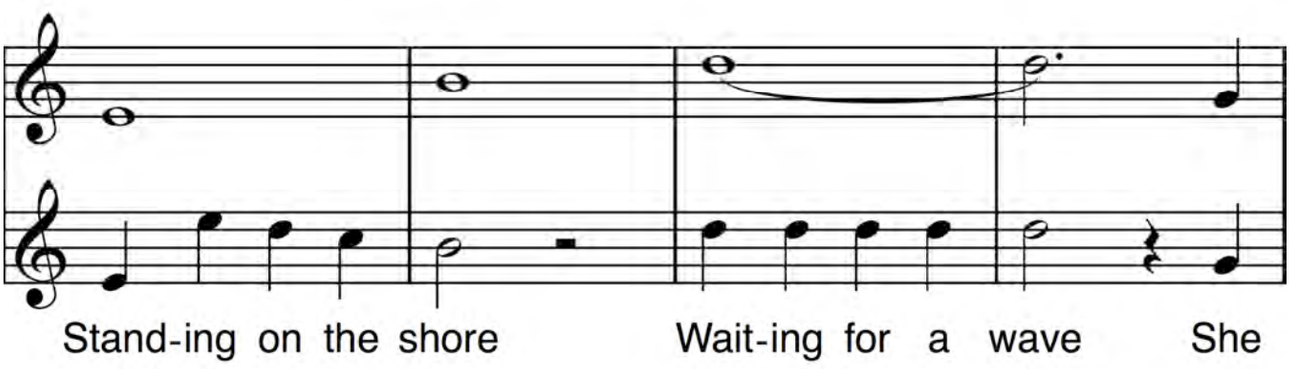
When varying the Melodic Contour, it is important to consider the overall Melodic Outline. An effective outline will usually move from phrase to phrase mostly in conjunct (step-wise) motion. Notice in the example below that the outline leaps up at the very beginning, but then descends stepwise, bringing balance to the overall section. The notes of the outline are E B A G, which leaves out only one skipped pitch, F, which would form 5 continuous notes of the scale. Notice that in measure one, even though we do leap up to a high E, due to the fact that it is on a weak beat, and immediately descends down the scale, it is heard as more of an embellishing scale run to B, instead of a prominent note for the outline.

Ex: 12-2



You would probably not want to begin a new phrase a large leap away from a previous one. They would sound like very unrelated phrases, as in the example below where the outline leaps from E up to B, then leaps up again to D, and then back down to G.

Ex: 12-3

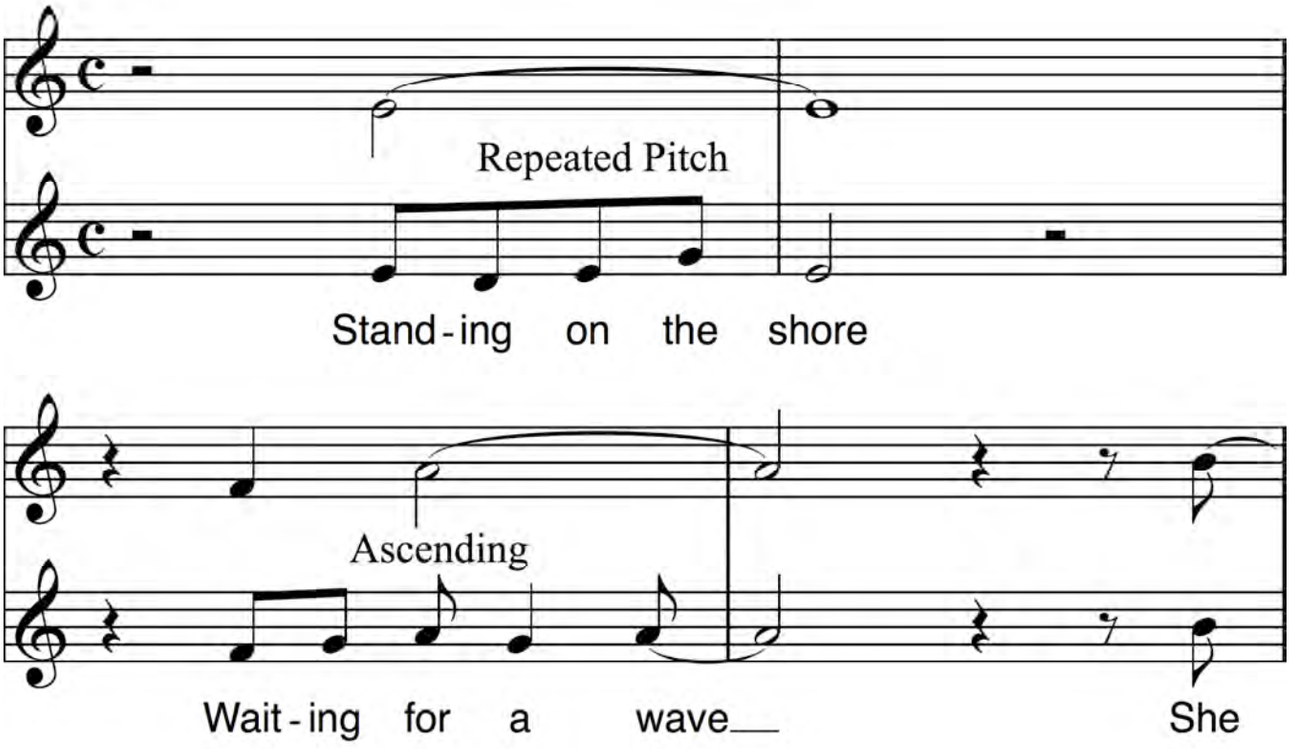


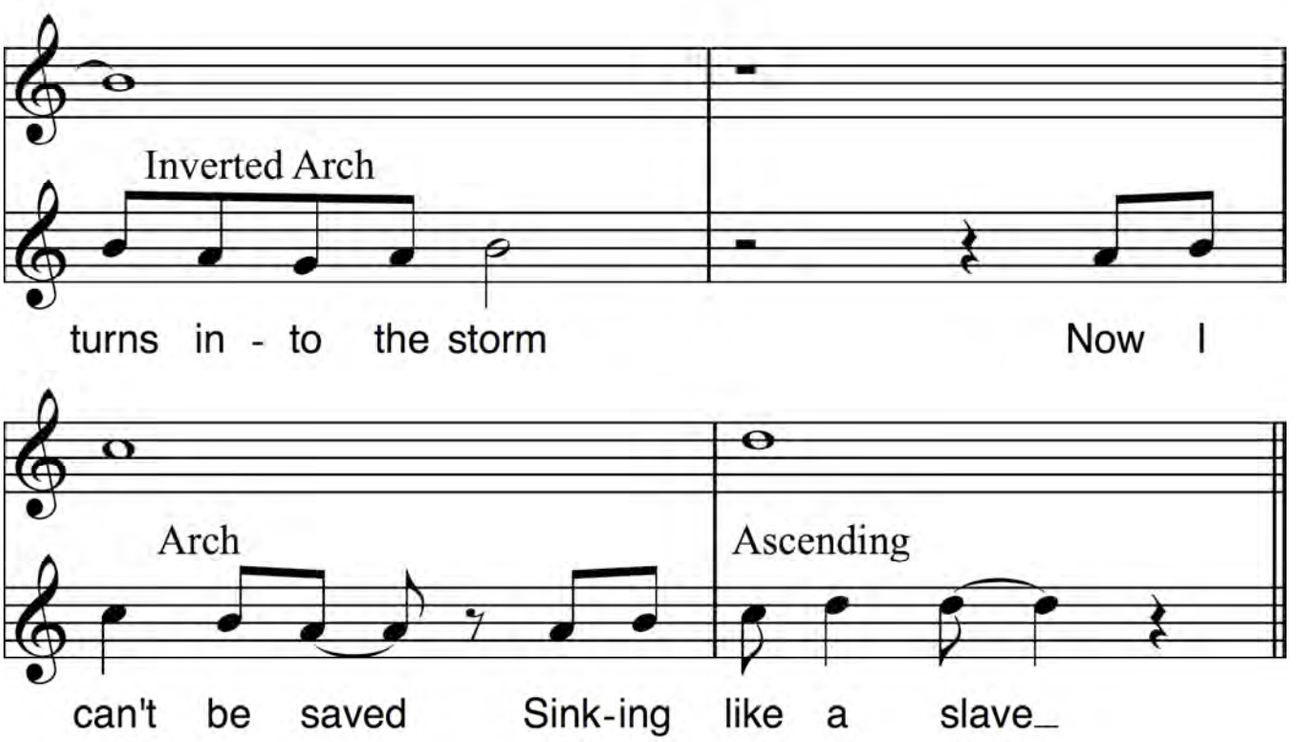
This is an example of an ineffective melodic outline.

It is stepwise motion that will create a sense that the phrases are connected to each other. As a general guideline, if there are leaps in the outline, it will be usually best to follow them by stepwise motion in the opposite direction of the leap.

One way to build the Melodic Contour of a whole section is to have the outline of each phrase move up one step. This will gradually build up energy for a section, such as a verse or prechorus, that is leading into a chorus.

Ex: 12-4





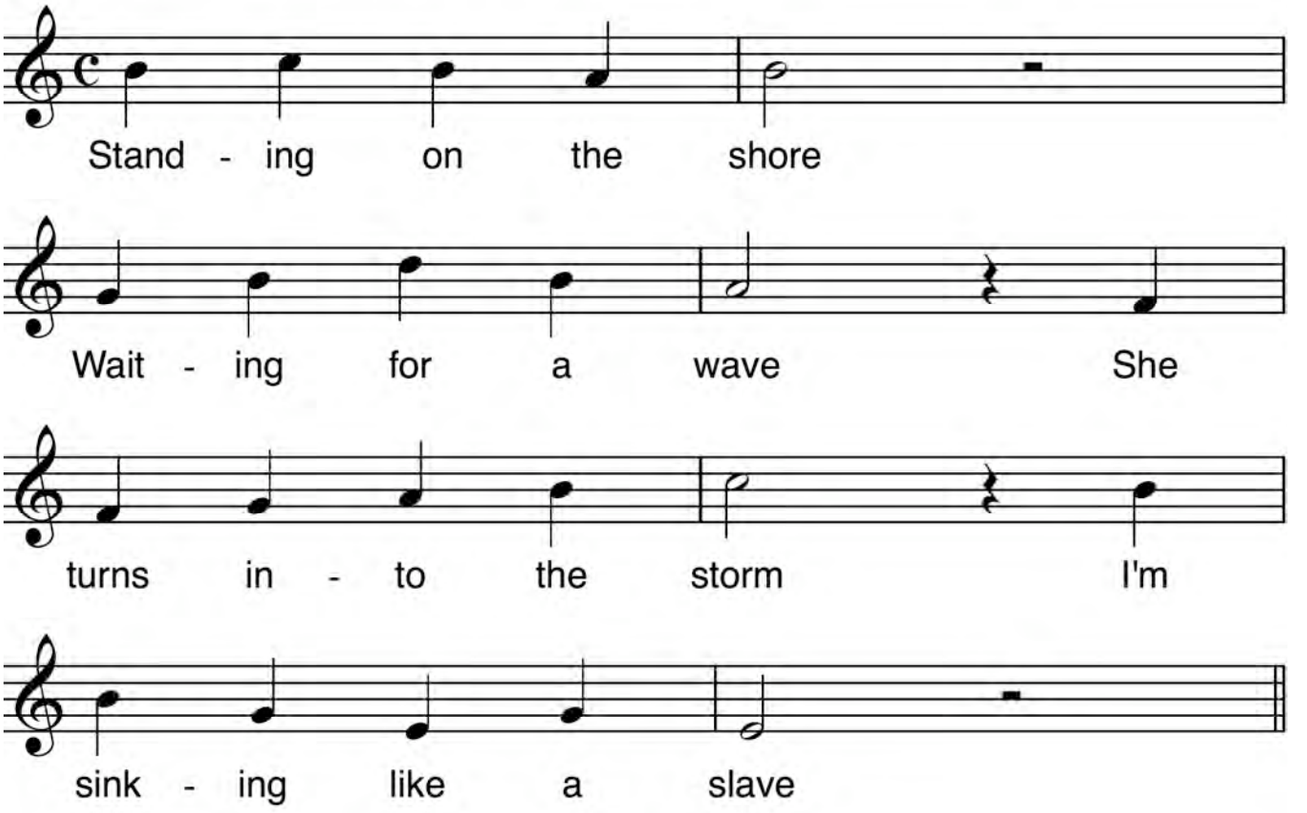
Notice in this example that the melodic outline ascends E-F-A-B-C-D. With the exception of G, the outline entirely uses ascending stepwise motion, and it contains 6 out of 7 notes of a C Major scale, which begins on the third pitch of the scale—E. This build up brings us to the final D note that is starving for a big fat E, an octave higher than the one at the beginning of the section, to start a chorus with in the next section. Also notice the variety of melodic contours throughout the section. Finally, see how each phrase enters a little earlier than the previous one, which actually leaves room for an extra phrase in the last measure. This reduction of space, and increase in the number of phrases, causes phrasal acceleration. It speeds up the phrases and adds to the momentum of the rising melodic outline.

Interval Expansions and Contractions

If you recall, this technique involves expanding or contracting the distances between the pitches of a melody. For instance, Close Intervals could each be only a scale step apart in pitch, and Expanded Intervals could each be two or three steps apart in pitch. When following the guidelines for mixing repetition with variation within a song section, here is one way to apply this technique. The example below alternates between close and expanded interval distances.

Phrase 1: Close Intervals using Upper and Lower Neighbors
Phrase 2: Expanded Intervals using an Arch Shape
Phrase 3: Close Intervals using an Ascending Shape
Phrase 4: Expanded Intervals using a Varied Shape

Ex: 12-5

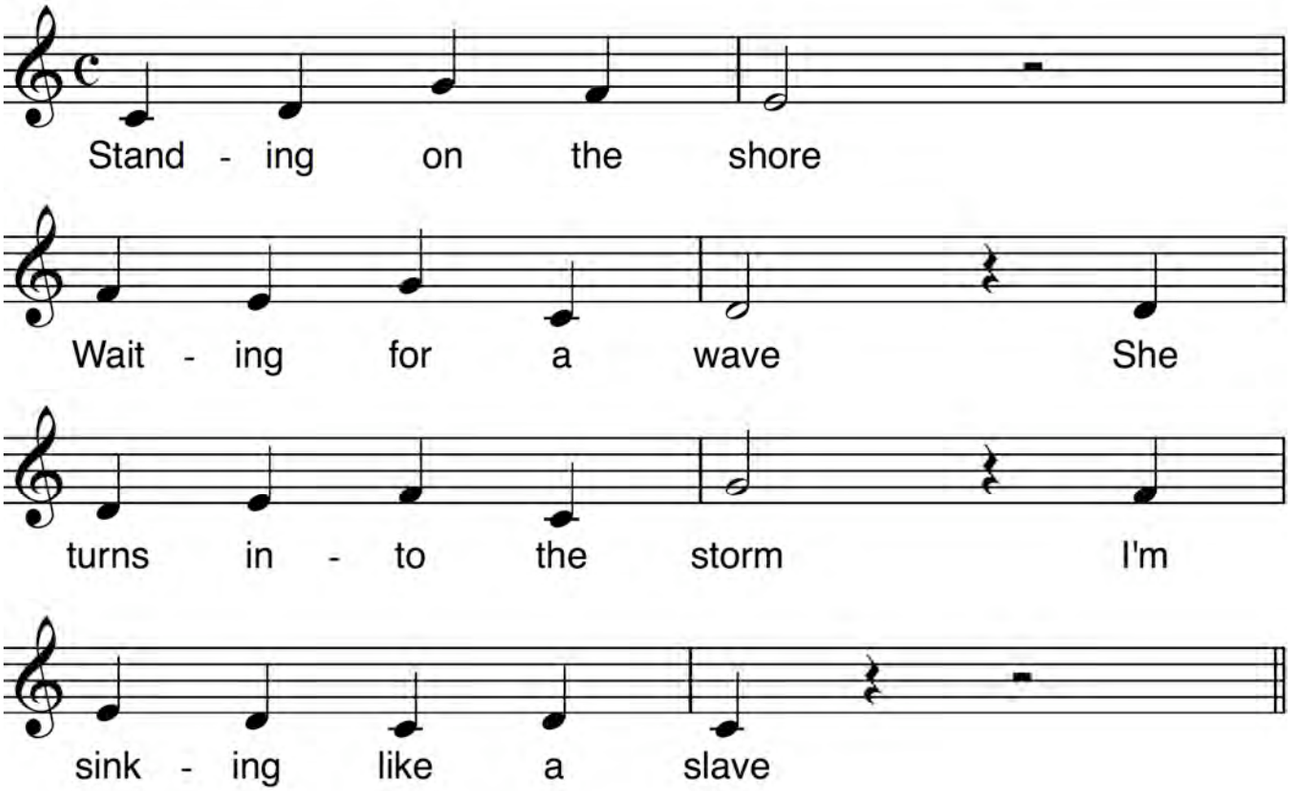


There are many other ways to vary the Interval Expansion and Contraction within a section. One approach would be to repeat the same interval type three times, and then surprise the listener by changing it for the last phrase.

Permutation

If you recall, Permutation is like a game in which the pitches of a melody are mixed in a different order. To apply this to the phrases in a song section, first you write down the letter names of the pitches, then you change their order, then you apply the new order to the next phrase while keeping the rhythms intact.

Ex: 12-6



Pitch Order

Phrase 1: C-D-G-F-E
Phrase 2: F-E-G-C-D
Phrase 3: D-E-F-C-G
Phrase 4: G-D-C-D-C

You can also set some of your own parameters within this game. In addition to the pitch order, you can decide if you want to allow the pitches to be potentially placed in higher or lower octaves. You can also decide if you want to set up a requirement to use every pitch in each phrase, or allow for just using as many of them as you like. It can be challenging to create melodies within set parameters like these, but it can also provide needed structure. The pitches that you choose to begin with will create a certain consistent sound, or pitch world, throughout the section. The way you vary their order, repetition, and octave displacements will provide variety. And of course, when you factor in all of the different rhythmic possibilities for each phrase, you may find that you actually need to limit your pitch parameters to keep some consistency, and not be all over the place with both your pitches and rhythms. So limitations are often a very useful constraint.

Tendency Tones

A song section can be developed through the use of Tendency Tones. This method allows stable pitches to slow momentum and ground a melody, while unstable pitches create tension, and propel a melody forward towards its pitch of resolution. This resolution can occur immediately in the following pitch, or it can be a delayed resolution. The consequences of melodic choices using pitch tendencies will satisfy, increase, or frustrate, the listener's expectations. You can use these factors to create suspense, anticipation, a sense of completeness, and many other emotions, just as a film score composer might use them to underscore the drama within a film.

Below is a list of pitch tendencies within the Major Scale, copied from a previous section.

Order of stability:

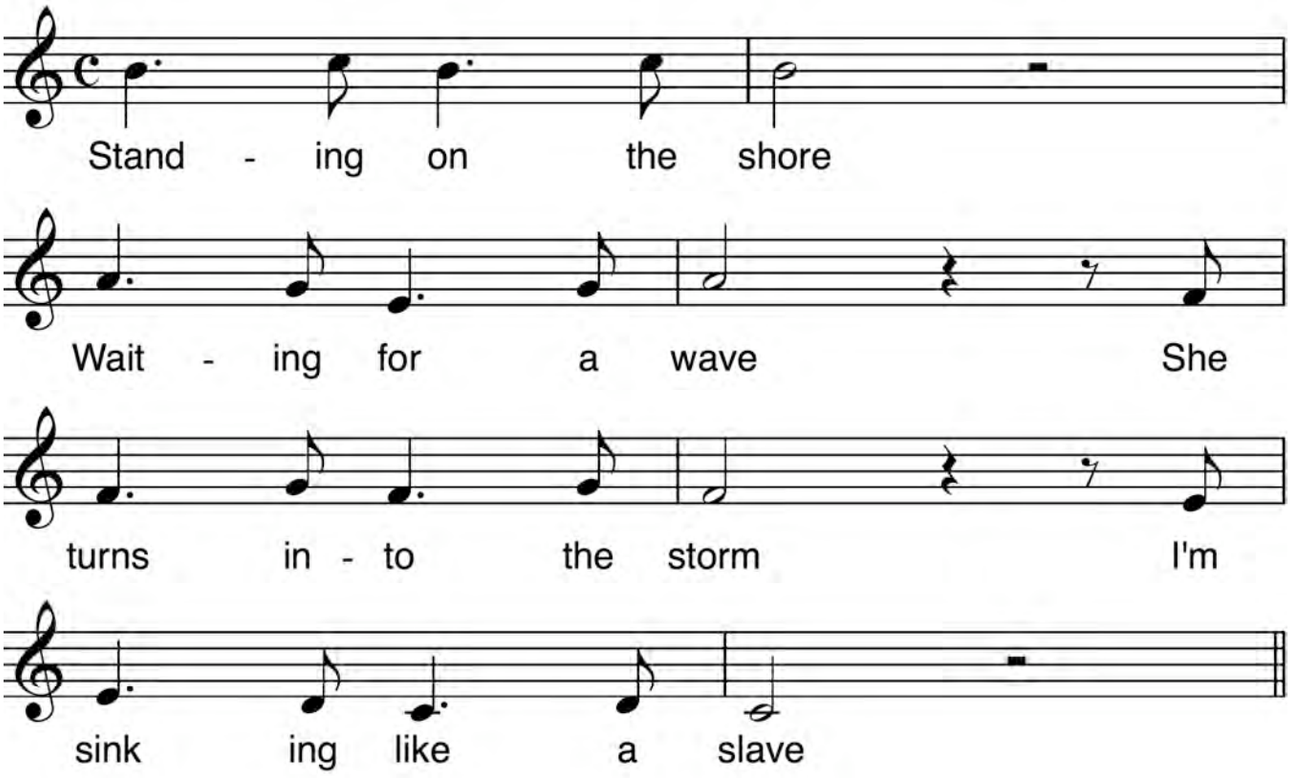
Most Stable 1 5 3 2 6 7 4 Most Unstable

Most Stable	1	5	
Medium	2	3	6
Most Unstable	4	7	

Tendency to Resolve

Scale Tone	Resolution
1	1 is at home
2	1, 3 or 5
3	1 or 5
4	3
5	1
6	5 or 7 then 1
7	1

Ex: 12-7



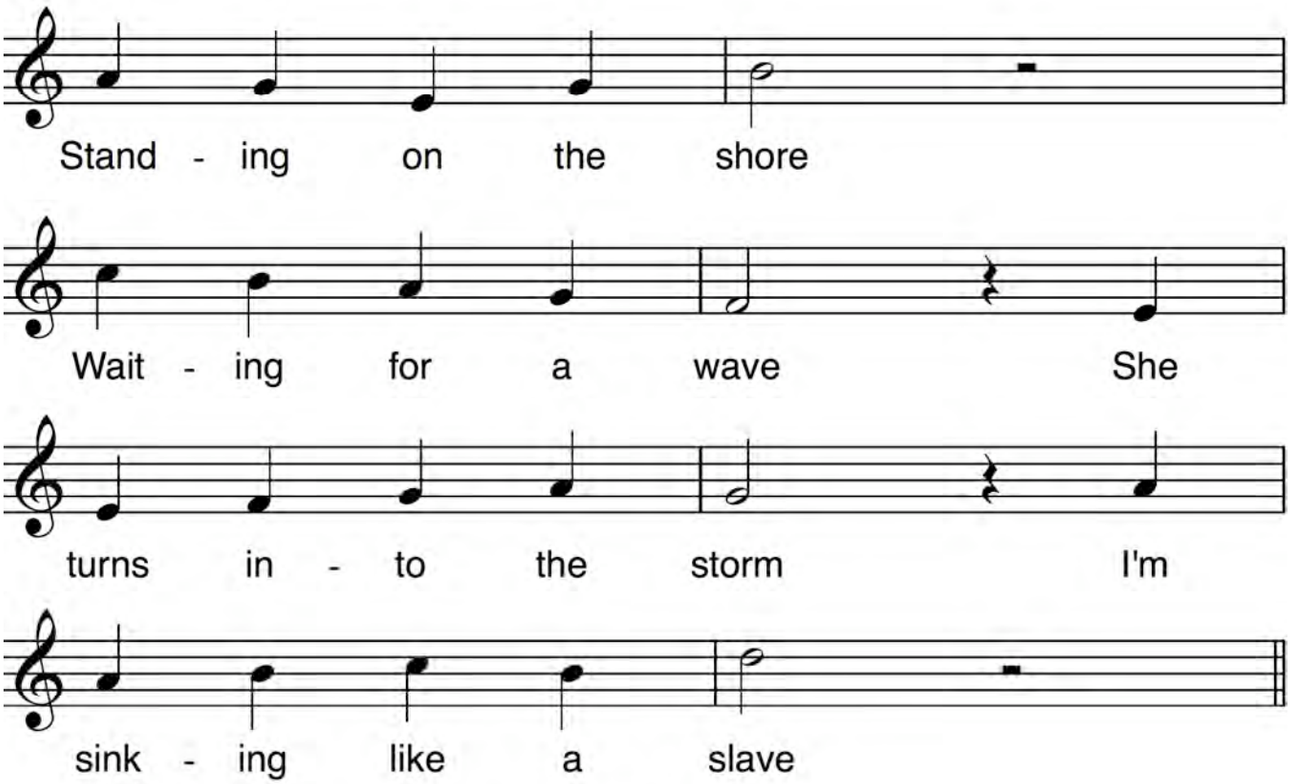
The above section is in the key of C. If we consider the melodic outline, phrase 1 is centered around B, the 7th degree of the scale, which is very unstable, and seeks to resolve to C. Instead of resolving, however, it descends in Phrase 2 to A, the 6th degree of the scale. This is also an unstable pitch, which doesn't resolve. Phrase 3 is centered around F, the 4th degree of the scale, which is the most unstable pitch in the key. This resolves down to E, the 3rd of the key, in the last phrase, which then goes to the root, C, finally resolving the B note from the first phrase and octave lower. The above section is a good example of unstable pitches keeping the melody in suspension and open, until they all eventually drop down into the root, and close the section with a sense of finality.

Vary Starting and Ending Pitches

When considering the pitch content of a melody, the number one guideline for preventing a song section from sounding boring, and for weaving together interesting melodies, is to vary the starting and ending pitches of the different phrases. There is nothing that will lose a listener's attention faster than hearing line after line of a song in which every phrase starts and ends on the exact same pitch. It is not necessary to make sure that the beginning and ending notes of each line are all completely different from each other. That may create too much variety. Remember that in addition to variety, it is also important to have some sense of consistency by using familiar material, so that the phrases still seem musically related to each other. But if all the beginning and ending notes are the same, the song section will become very monotonous.

In the following example, notice how the starting and ending pitches of the repeated phrases vary from line to line. Pitches in the middle of the phrases will naturally change also, to make possible the construction of good melodies from the new starting pitches. Sometimes a starting or ending pitch is repeated in subsequent lines, which can sound fine; the variation of pitches does not need to be strictly followed every time.

Ex: 12-8



Other important aspects of starting and ending pitches to pay attention to are Tendency Tones. Ending a phrase on very stable pitch will stop the melodic flow, so it is not such a good idea to do that in the middle of a song section. However, ending a chorus on a stable pitch is usually a very good idea, you normally want a sense of finality there. The end of verses could go either way; you may want to bring finality to the section, or you may want to leave it open so that it creates momentum into the prechorus or chorus that follows it.

Below is a layout of the tendency tones for the starting and ending pitches of the phrases in the song section above.

Phrase 1:
Ends Unstable on 7 (B), Resolves to Stable 1 (C) at the beginning of the next phrase.

Phrase 2:
Ends Unstable on 4 (F), Resolves to Stable 3 (E) at the beginning of the next phrase.

Phrase 3:
Ends on Stable 5 (G), but lacks closure because being an odd numbered phrase (3rd phrase) places it in an asymmetrical position in relation to the whole section.

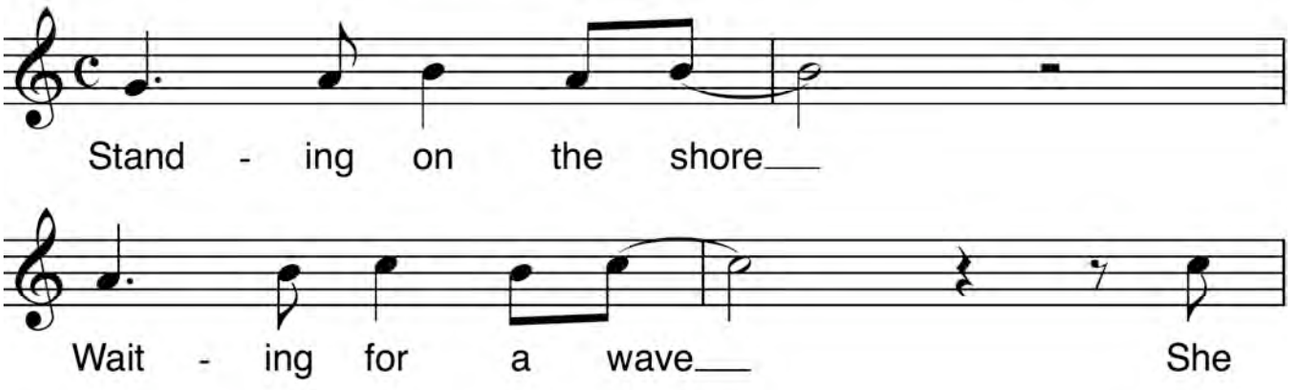
Phrase 4:
Ends Unstable on 2 (D), will seek resolution in the next section, the section feels open.

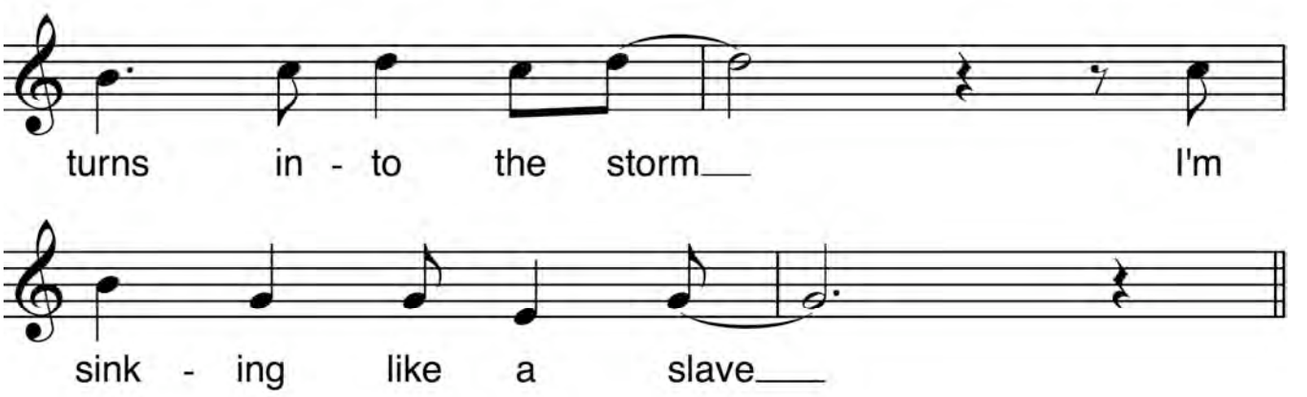
Transposition and Sequencing

By copying the exact Melodic Contour from one phrase to the next, while moving it as a whole either up or down in pitch, we will create what is referred to as a transposed melody. The distances between pitches, and the direction of pitch movement from one note to the next, remains exactly the same, but the entire phrase will be moved to a new pitch location. All the notes will be a certain distance either higher or lower in pitch than the original. When transposing several phrases in a row in this manner, we create what is referred to as a Sequence. Transpositions can be Exact, which will maintain the half-step and whole-step relationships from one phrase to the next, but this will usually create some chromatic pitches that lie outside of the key. A more flexible approach to utilizing Transposition will allow the intervallic steps to vary in quality between major, minor, diminished, or augmented intervals, so that the newly transposed phrase stays within the key. This more common use of the technique is called Diatonic Transposition. The word Diatonic refers to staying within the scale. It represents the general melodic shape, but does not stick precisely to the half-step/whole-step distances between notes.

In the example below, notice how in each of the first three lines the entire phrase is set one pitch higher than the previous one. The forth phrase departs from the sequence with a downward melody, which helps to balance out the upward movement of the first three phrases. This is an example of both transposing and sequencing a melody.

Ex: 12-9





Inversions

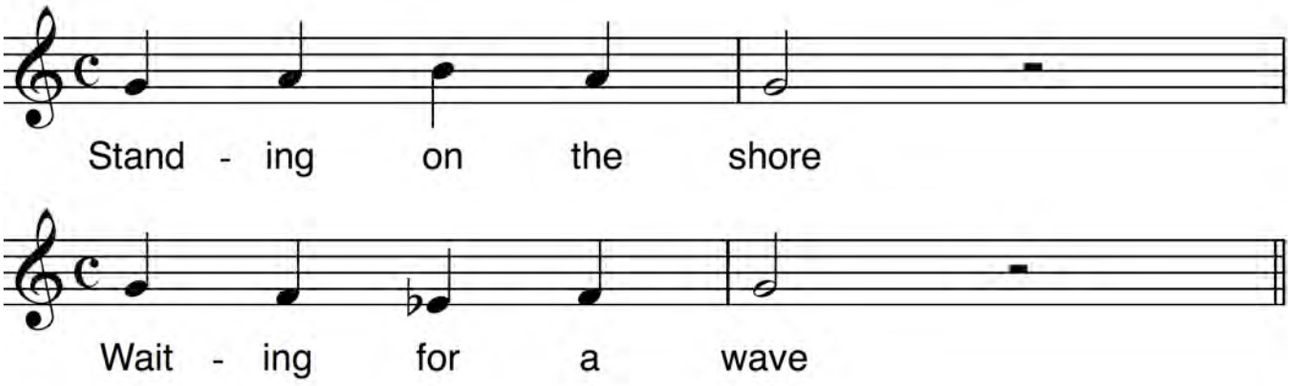
An Inversion is like a mirror reflection of a melody. It refers to changing the contour of a melody to the opposite pitch direction, reconstructing it upside down, from the original one. For instance, if melody 1 goes up two pitches on the second note, melody 2 will go down two pitches on the second note. This logic can continue throughout the new phrase, creating an exact mathematical inversion of the first melody. Exact Inversions, however, can place some pitches outside of the key, the same as exact transpositions. A Diatonic Inversion will make half-step adjustments in order to keep all of the pitches within the same scale. One could also create a very loose inversion, where the pitches of the new phrase follow the general inverted outline, but take more liberties with the shape.

Inverted melodies can begin on the same pitch, and move in opposite directions, or the second melody can start on a different pitch, creating a phrase that is both Inverted and Transposed. Below are four examples of the use of Inversion from one line to the next.

Exact Inversion

In the following Exact Inversion, both phrases begin on the same pitch, but one has a melodic shape of an Arch, while the other goes in the opposite direction of an Inverted Arch. The second phrase is a mirror image of the first, The step-wise formula for the first phrase is (up)-whole-whole-(down)-whole-whole. This is simply reversed in the second phrase to (down)-whole-whole (up)-whole-whole. An exact mirror image will often place some pitches outside of the key, as is the case here with the Eb note in phrase 2 below.

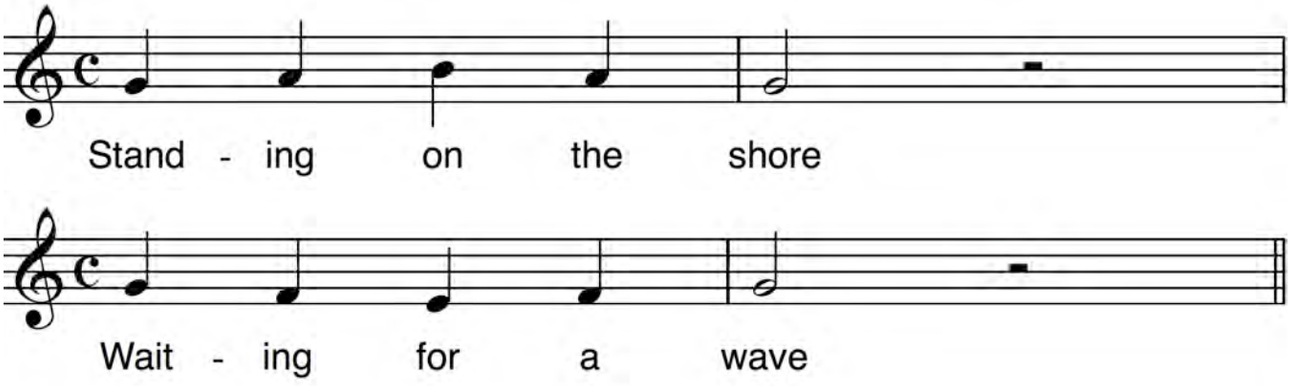
Ex: 12-10



Diatonic Inversion

In the Inexact Inversion below, the mirror image is slightly adjusted to keep all of the pitches in the same key. The step-wise formula is changes to (down)-whole-half (up)-half-whole for the second phrase, to keep all the pitches in the same key.

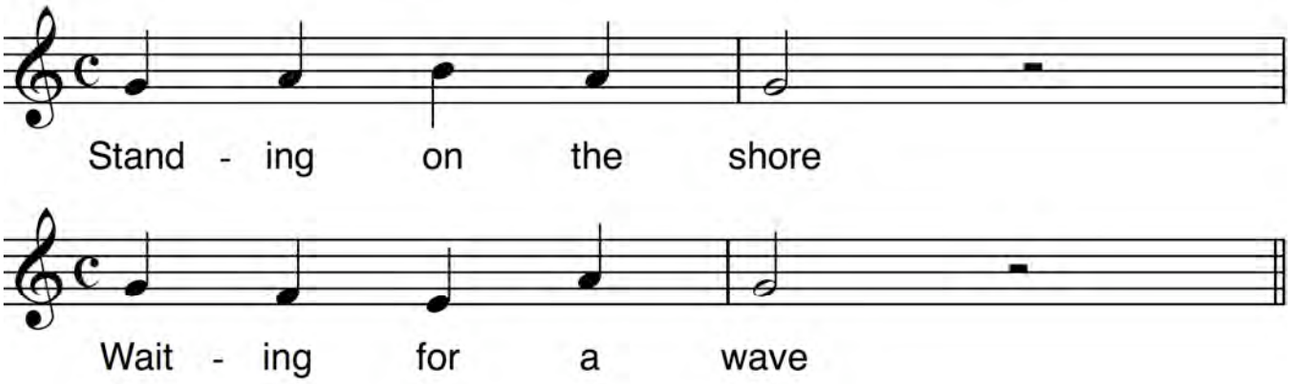
Ex: 12-11



Loose Inversion

In the loose Inversion below, the third line mirrors the first in a general way, by going down-up instead of up-down, but it takes a larger step in pitch between the first and second note, and the fourth note actually leaps up higher than the last and resolves down to it. This demonstrates a much more flexible use of Inversion. It will still have the sound of melodies that move in opposite directions, but the shape will be less exact, which can sometimes make it sound more musical.

Ex: 12-12

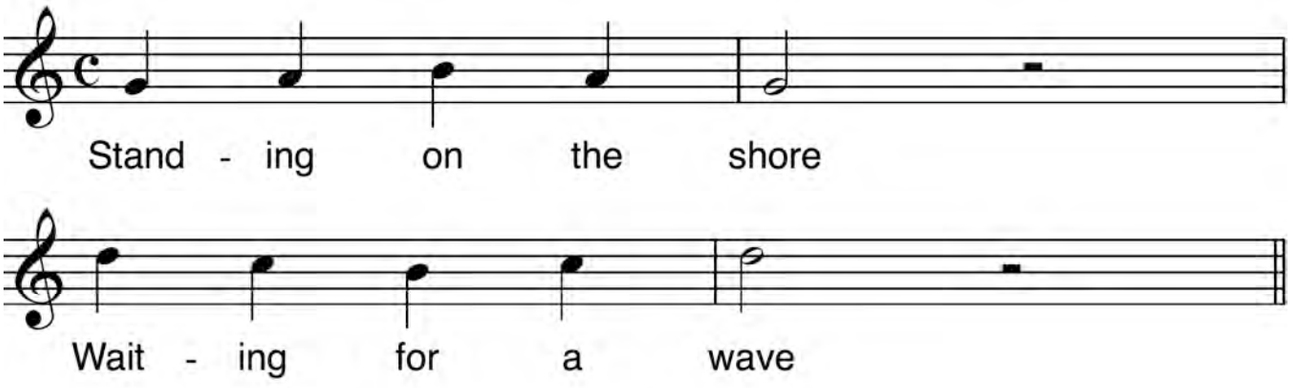


Transposed Inversion

In a Transposed Inversion, the entire Inverted phrase is moved to a different pitch area. Transposed Inversions can be Exact, Inexact, or Loose. Exact transposed Inversions will usually have a note or two that are outside of the key, but not always.

The following is an example of a Diatonic Transposed-Inversion. In order to keep all pitches in the same key, this example needed to change the Bb note, which would have occurred in the second phrase of an exact transposed-inversion, to a B natural. The step-wise formula of (up)-whole-whole-(down)-whole-whole for phrase one, is reversed and modified to (down)-whole-half (up)-half-whole for the second phrase. The whole phrase is also transposed up a perfect 5th; now it begins and ends on D instead of G.

Ex: 12-13



Final Pitch Exercise

Exercise: Take a melody of your own, repeat it four times with different words for each line, and experiment with all methods of varying the pitch content form line to line. You could easily spend an hour trying all the different possibilities with each technique. Do

this on a regular basis both as an exercise, and with songs that you are currently writing and editing, and you will quickly become much faster and more intuitive at applying these techniques, and at creating great melodic sections.

13. Rhythm and Pitch of Sections

The following techniques deal with both rhythm and pitch components of melody simultaneously. We will apply these rhythm and pitch development tools to multiple phrases within a song section. We will explore techniques you are familiar with, in addition to some great new ones.

Rhythm and Pitch Tools

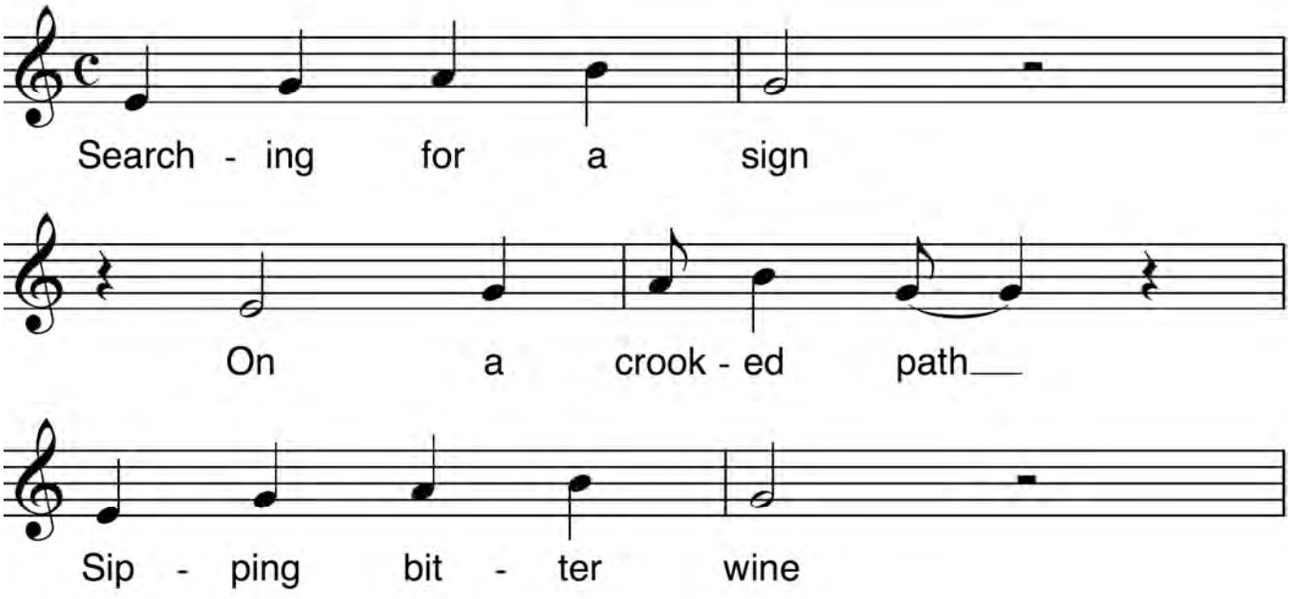
- **Keep One, Change the Other**
- **Ornamentation**
- **Thinning**
- **Cadence**
- **Retrograde**
- **Combining Techniques**

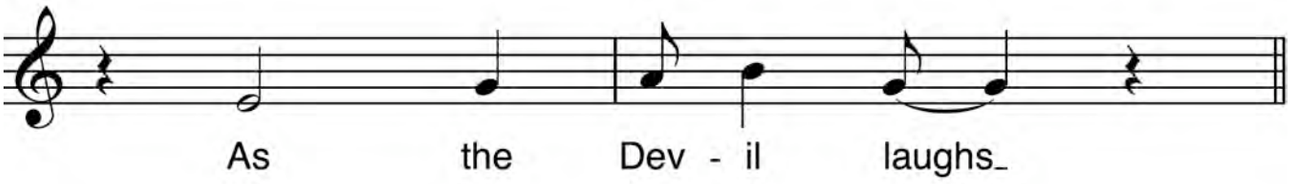
Keep One, Change the Other

This is a great simple method that can be used to jump-start the melodic development of a song section. To apply this, keep either the pitch or rhythm content of the phrases exactly the same, and modify the other using any of the techniques discussed, or simply create the variations intuitively.

Here is an example of keeping the Pitches the same for every phrase, while varying the Rhythms.

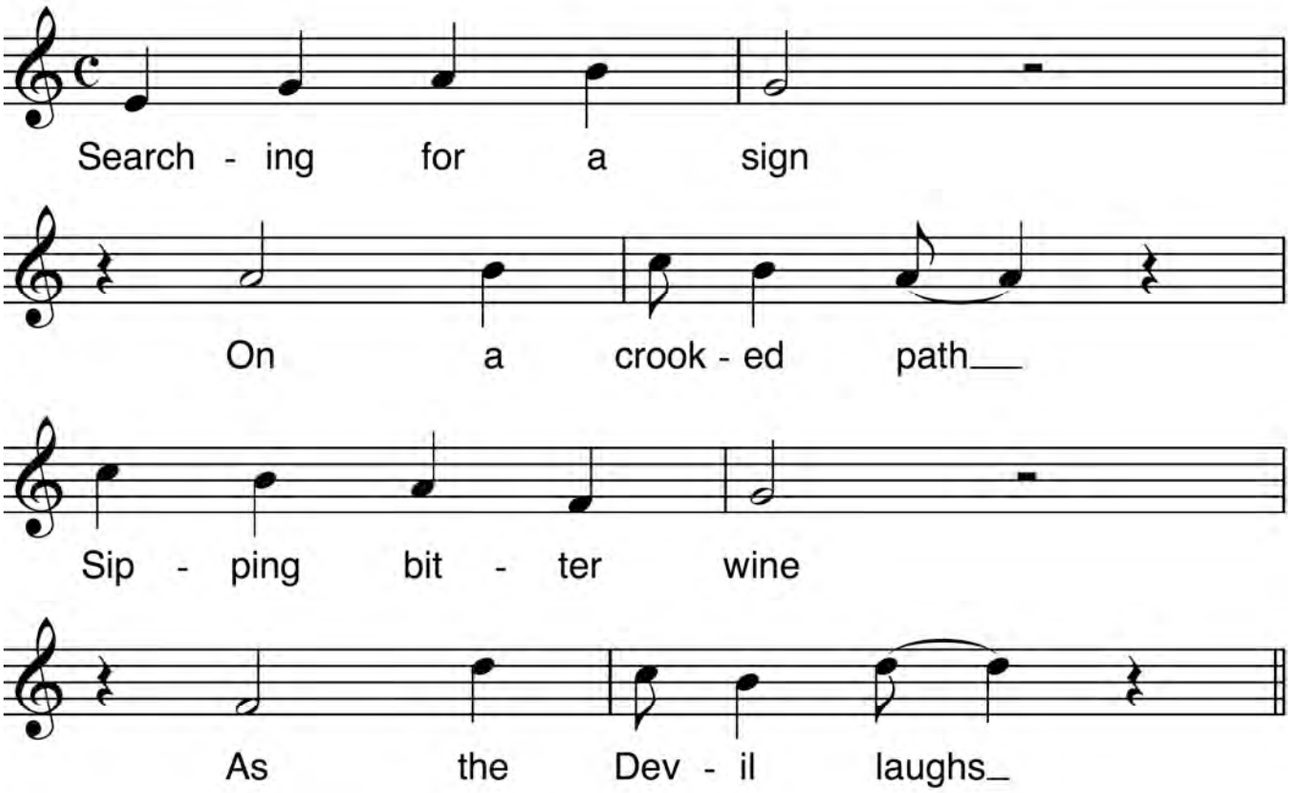
Ex: 13-1





Next is an example of keeping the new Rhythms exactly the same for every phrase, while varying the Pitches.

Ex: 13-2



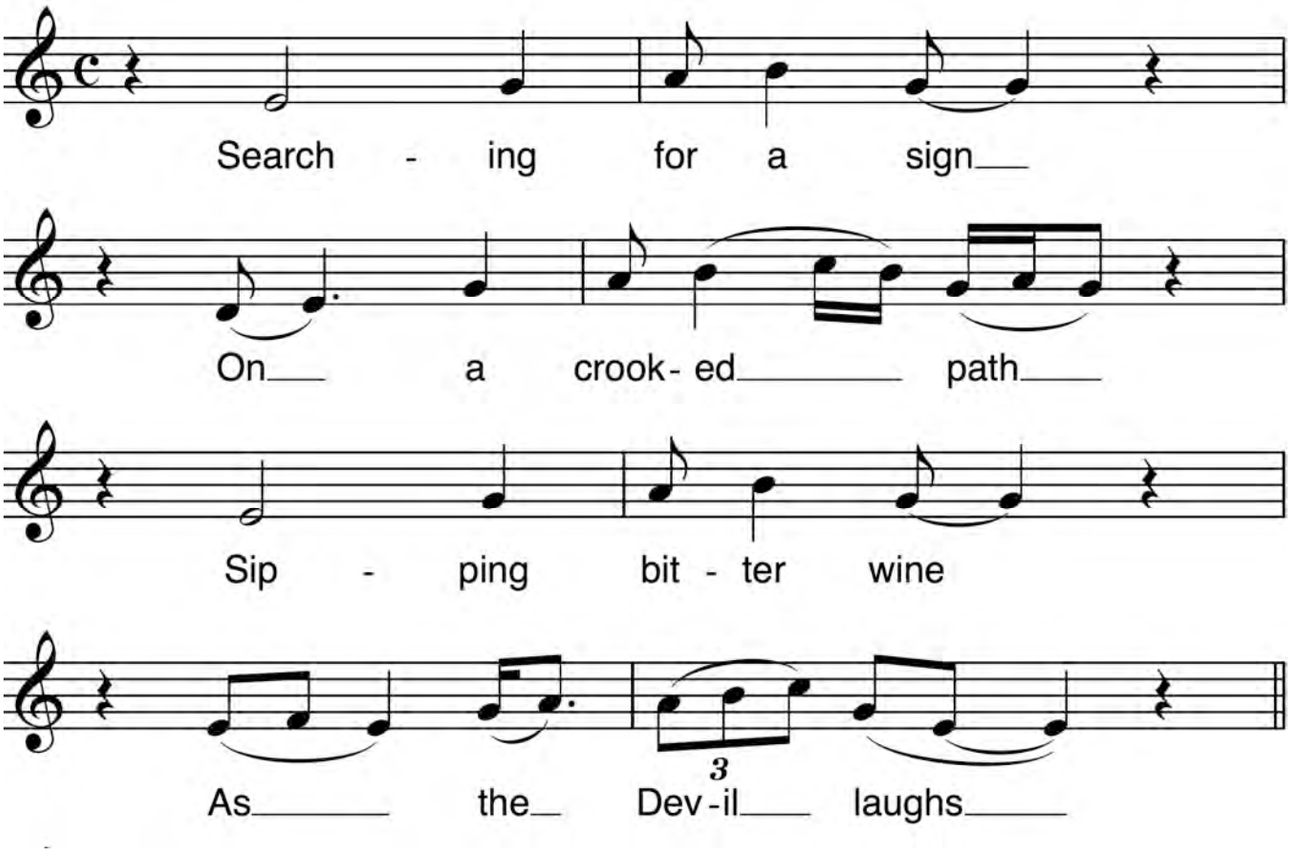
You might not want to keep the unvaried phrase exactly the same for the finished product. This is just a quick method that allows you to only have to deal with one half of the components of melody at a time. Once you discover a few phrases that you like, you can then work on the other half. It is just a quick way to organize your experimentation into two different categories.

Ornamentation

Ornamentation can be used to spice up various phrases within a song section. But even though there are many ways to embellish a melody, this technique alone usually will not create enough variety from phrase to phrase. It can be somewhat subtle at times, and you will probably have to combine this with some other techniques in order to adequately differentiate your phrases. In the example below, the same exact pitches and rhythms

have been used for every phrase, in order to better display the ornamentation techniques that are applied to the second and fourth phrases. Notice the slurs connecting the ornamented notes. This is a common way to indicate that the same word is to be sung over several notes.

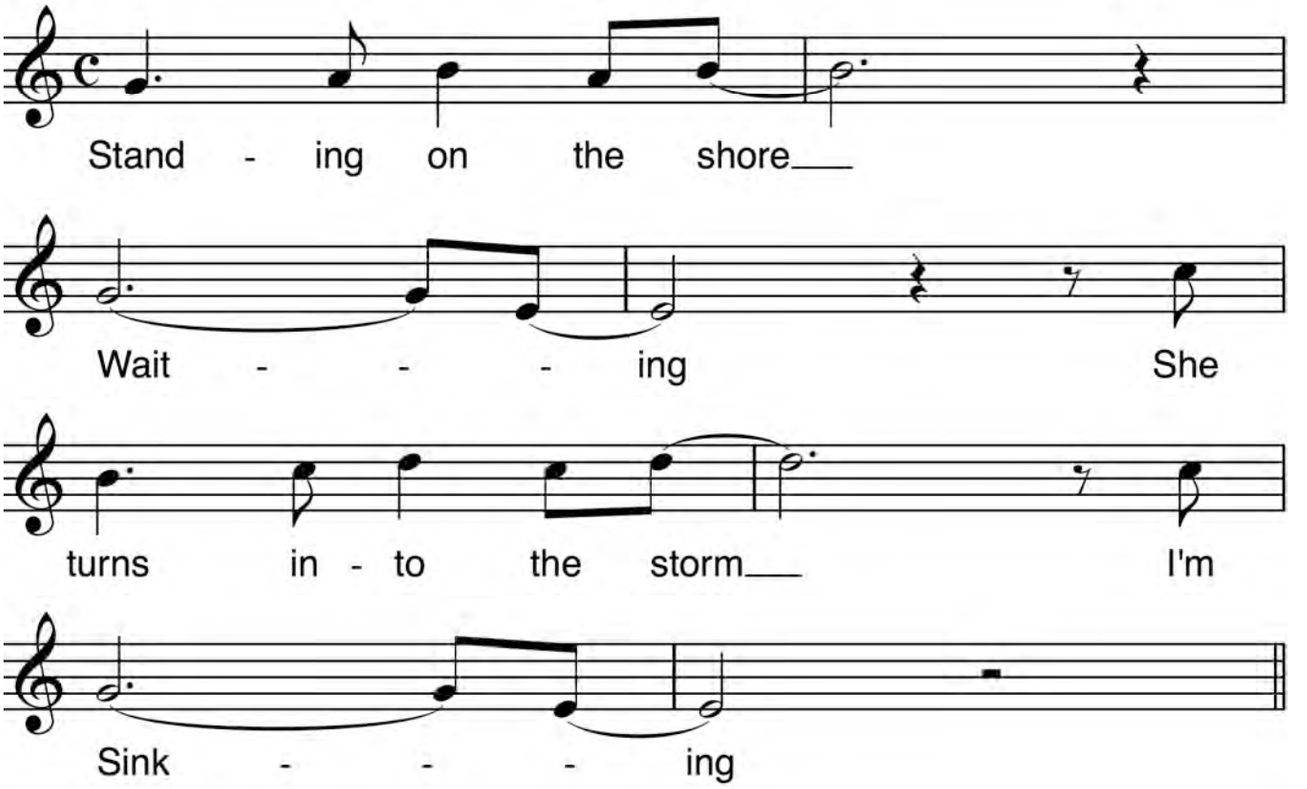
Ex: 13-3



Thinning

Thinning is the opposite of Embellishment. Thinning a melody can be done to varying degrees of extensiveness. When a melody is thinned out to a great degree, it may leave rests between the notes. Those rests can either stay there as brief pauses within the phrase, or extending the durations of the remaining notes can fill in the gaps. Varying a Thinned out melody with the original can add quite a dramatic effect. The example below employs Thinning extensively, and fills in the rests by extending the remaining note durations.

Ex: 13-4



Cadence

Cadence refers to a point of punctuation,, closure, or finality, that is followed by a rest. Cadences can be created from rhythm, pitch, or both, within a melody. Harmony also has a very strong effect on cadences. This is discussed in detail in the companion book to this series related to Harmony.

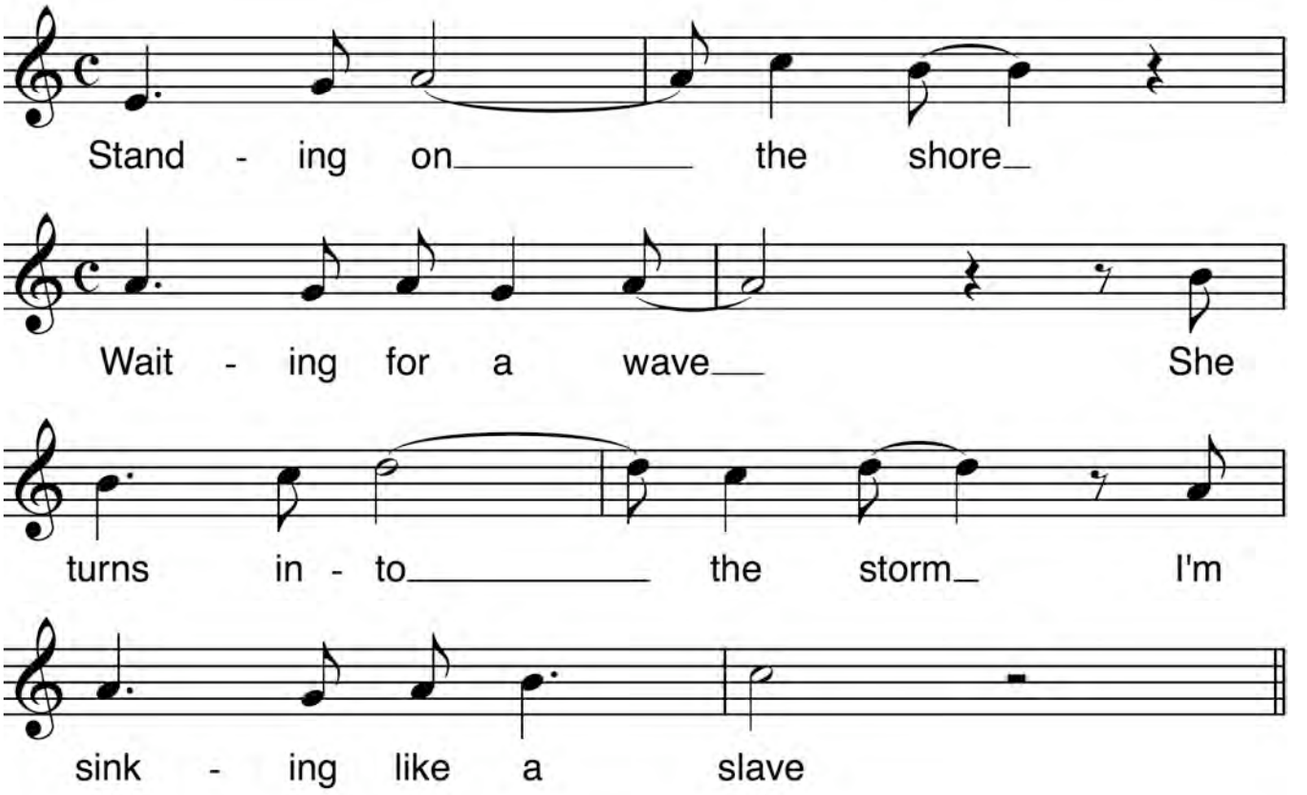
Rhythmically, a Cadence naturally will want to occur at points of symmetry within the meter. The strongest cadential point for a melody will occur on the 1st beat of the 2nd half of a metric phrase. (A metric phrase refers to the measures in which a melody is placed). So a melody set within two measures of music will have its strongest possible point of closure on the 1st beat of the 2nd measure. The second strongest Cadential point is the 1st beat of last fourth of the metric phrase. A melody set within two measures of music will have its second strongest possible point of closure on the 2nd beat of the 2nd measure. Using either of these ending placements will create strong conclusions to your phrases.

When considering pitch within cadences, ending on the root of the scale will create the strongest cadence. You can examine the chart on Tendency Tones to determine the strengths and weaknesses of the other pitches within a scale, in order to determine their impact on cadences.

In contrast to cadences, placing phrase endings on weaker beats will create a more natural, or conversational effect. Cadences are most important at the end of sections. If you place a strong cadence in the middle of a song section, it will completely stop the momentum. For phrases that are not at the end of a section, a more conversational approach is usually desired, rather than a cadence.

The next example employs more conversational endings for phrases 1 through 3, but has a strong rhythmic cadence for the final phrase, with the last note set squarely on the downbeat of the weak measure within the metric phrase. Also, notice how the pitches, which are in the key of C, end on unstable tendency tones for the first three phrases, but then end on the root for the last phrase. The combination of ending with a cadencial rhythmic placement, and a very stable pitch, creates an immediate sense of closure for the section.

Ex: 13-5



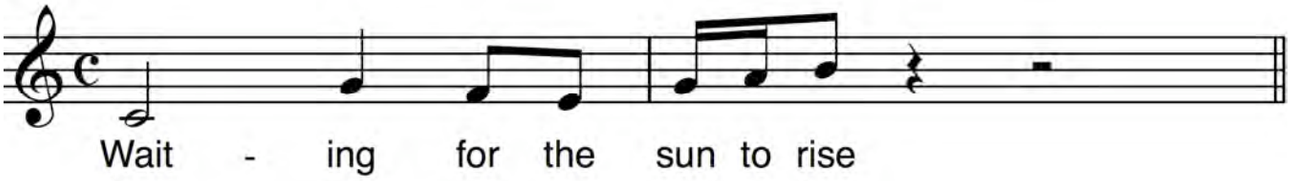
It is the combination of rhythmic and melodic cadence that will determine the ultimate sense of closure or openness for each phrase, and to a song section as a whole. Not every section needs to end on the root of the scale, and have a strong rhythmic placement. This might create too much closure in certain circumstances in which anticipation of the next section is a more desired effect. But with this knowledge of how to use cadences to create different degrees of closure, you will be able to make much better creative choices for the endings of your song sections.

Retrograde and Retrograde Inversion

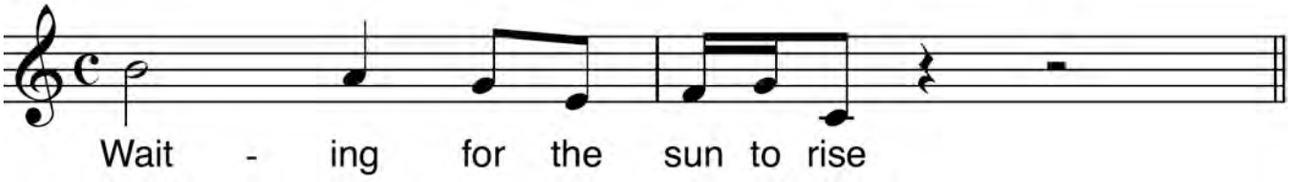
The following are techniques commonly used by composers, which tend to be a bit harder to hear than the other techniques we have been discussing. They may not be as useful to songwriters, but are explained here to give you an appreciation for the types of games composers sometimes set up as a way to develop melodies, and this is really just the tip of the iceberg. But songwriters do use techniques such as these from time to time. Learning this could also add a couple more tools to your arsenal that will help you create some really interesting music.

Retrograde refers to singing a phrase backwards. There can be a Rhythmic Retrograde, in which the durations of the notes are laid out in reverse order. There can be a Pitch Retrograde, in which the pitches used are written in reverse order (for example: a-g-f-e-b in one phrase, becomes b-e-f-g-a in the next). There can also be a Rhythm and Pitch Retrograde, in which both the durations of the notes and the pitch order are reversed. Below are some examples.

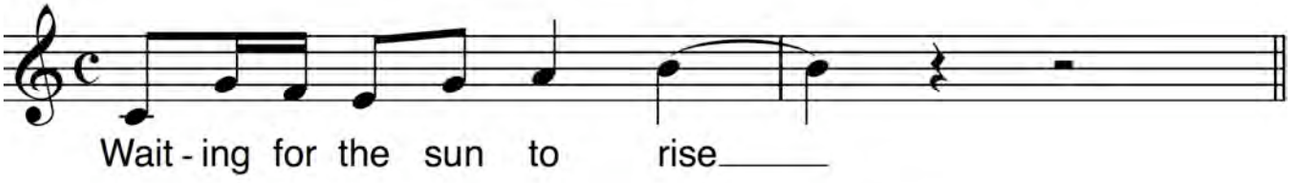
Ex: 13-6 Original (pitches C-G-F-E-G-A-B)



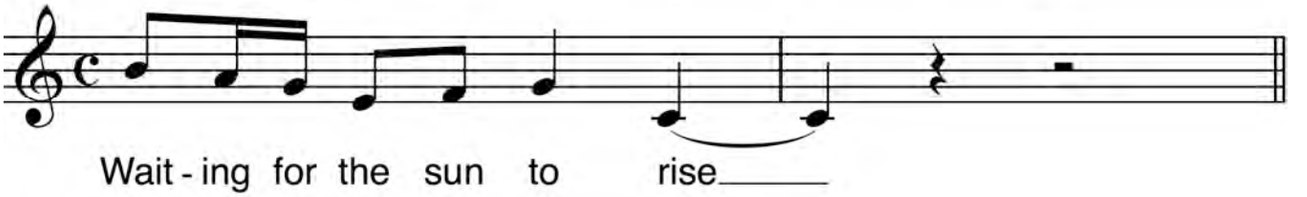
Ex: 13-7 Retrograde Pitches (pitches B-A-G-E-F-G-C)



Ex: 13-8 Retrograde Rhythms (pitches C-G-F-E-G-A-B)



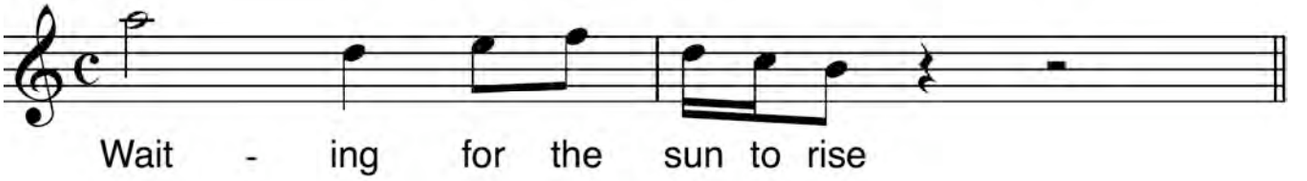
Ex: 13-9 Retrograde Pitches and Rhythms (pitches B-A-G-E-F-G-C)



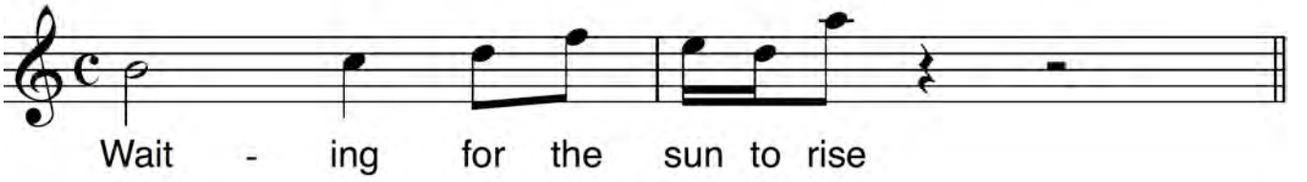
Inversion, if you recall, refers to creating a mirror image of the pitches within a melody, or constructing it upside-down. Retrograde Inversion refers to creating a mirror image of the pitches, while singing the pitches, the rhythms, or both, backwards as well. Inversion is different from Pitch retrograde, which simply lines up the pitches backwards. Here we create an Inversion of all the Melodic Contour first (what went up now goes down, and vice versa), and then we place the pitches, rhythms, or both, in reverse order.

Inversions can be centered around any pitch, whether it is in the phrase or not, which adds quite a bit more possibilities. The examples below will all invert the phrases around the ending pitch. Inversions can also be exact, which will often place some pitches outside of the key, or they can be diatonic, which will apply some half-step adjustments to the exact inversion, in order to keep all of the pitches in the same key. The examples below all use diatonic inversion.

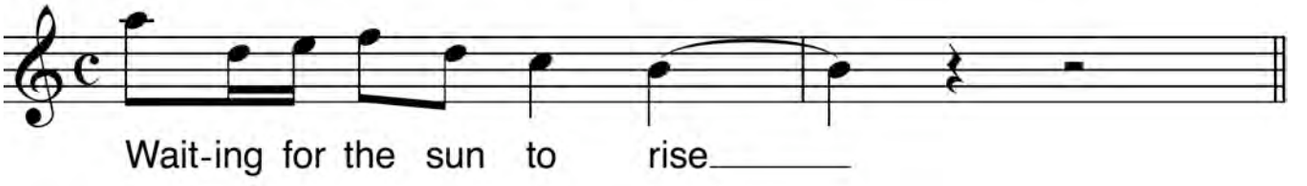
Ex: 13-10 Original Line Inverted around the ending pitch (pitches C-D-E-F-D-C-B)



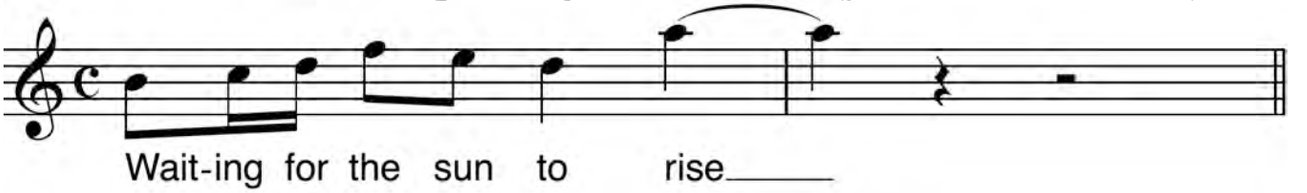
Ex: 13-11 Inverted with Retrograde Pitches (pitches B-C-D-F-E-D-C)



Ex: 13-12 Inverted with Retrograde Rhythms (pitches C-D-E-F-D-C-B)



Ex: 13-13 Inverted with Retrograde Rhythms and Pitches (pitches B-C-D-F-E-D-C)



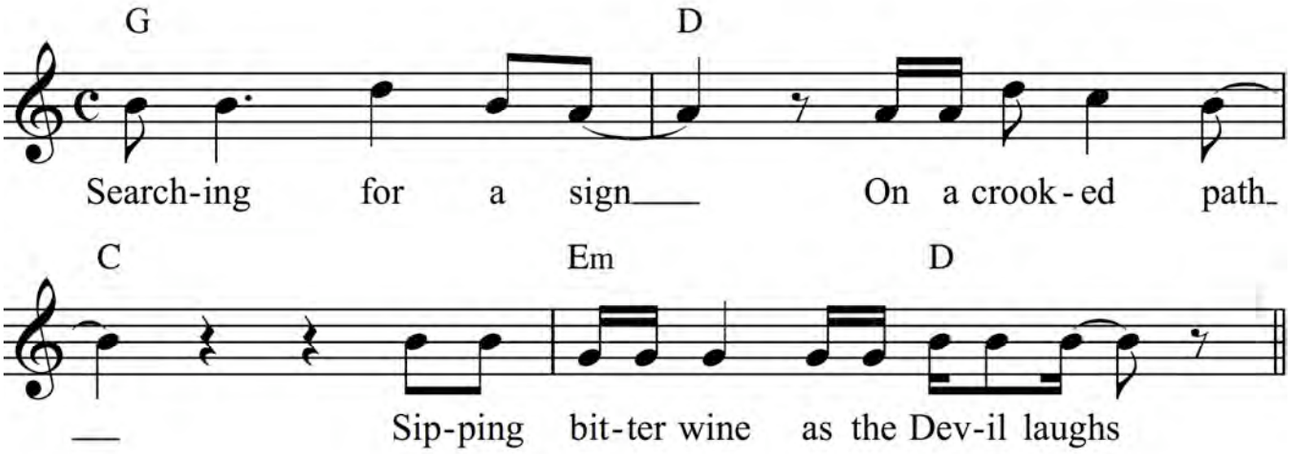
Again, these techniques can be somewhat mathematical, and are used more commonly by composers than by songwriters. Composers often seek out certain parameters like these to manipulate, and build them into musical games, and sometimes into entire music compositions. It is the consistency of technique that holds the composition together and creates a certain kind of sound texture. A composer might also use techniques like these only for brief sections of a piece of music. There are many more strategies used by composers for writing music, but they go far beyond the scope of this book, and many of them do not lend themselves readily to the songwriting process. So let us not diverge any further from the subject at hand.

Putting the Pieces Together

Below are examples of completely finished song sections that have been developed using many of the rhythm and pitch techniques discussed so far. We have been examining these tools primarily as isolated exercises, and sometimes one technique will be all that is needed to completely develop a song section. However, most of the time you will find that it is through a combination of several techniques that the best results are achieved. Although we have not covered harmony yet, chords have been added to the final examples in order to make them a bit more musical.

Example 1

Ex: 13-14



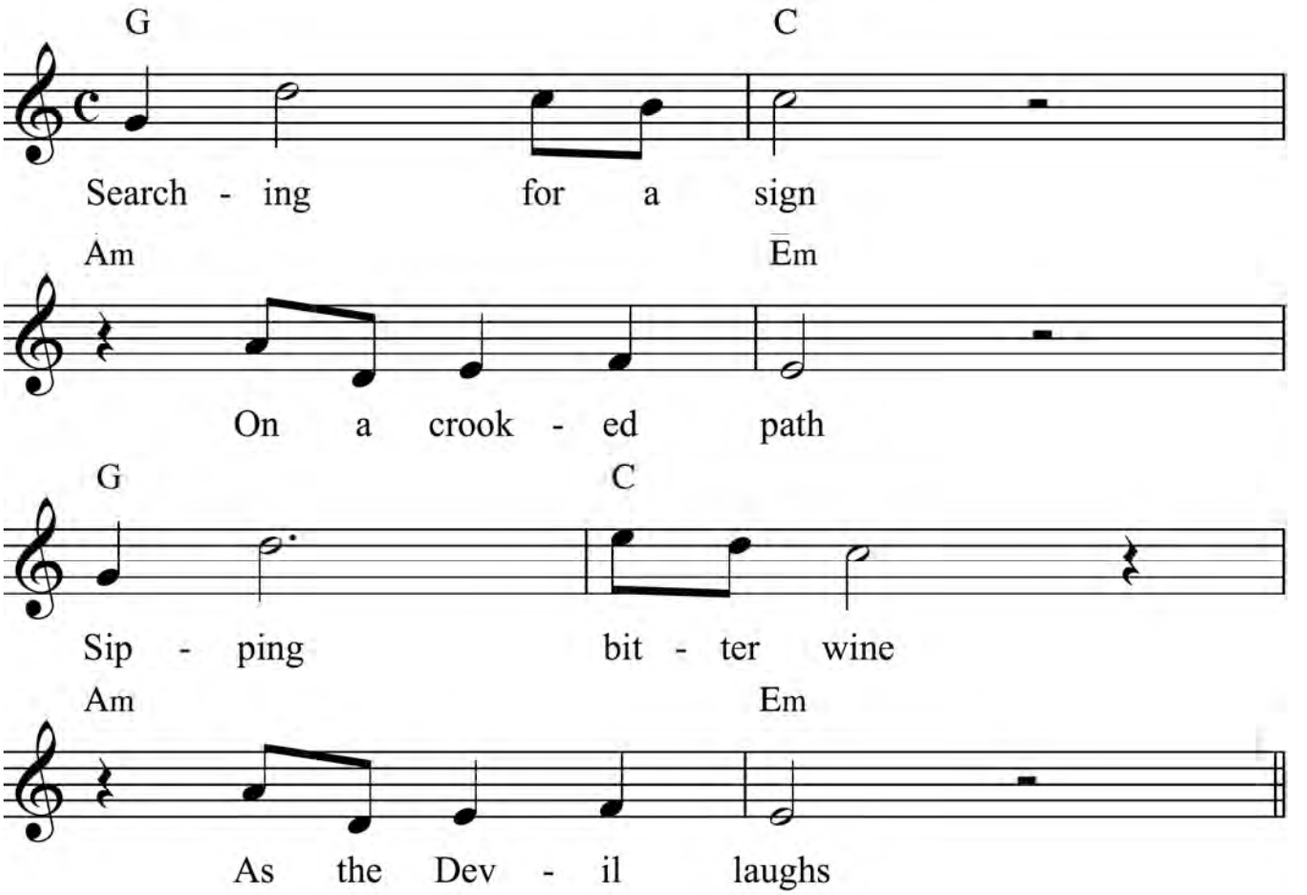
In example 1, there is syncopation interspersed among the straight rhythms for **Rhythmic Variety.** The second phrase begins after only a very short pause, with a **Starting Point** that begins way before the first beat of the next measure, which turns the phrasing completely around. The third and forth lines are joined together in **Combination,** and they employ faster Sixteenth Note rhythms. This change in Note **Durations**, along with the a **Starting Point** that occurs before the first beat of measure five, allows the entire combined phrase to finish before the fifth measure even begins. This enables all four phrases to fit into only four measures of music, half the original length of the section.

Techniques Used:

- Rhythmic Variety
- Phrase Start Point
- Phrase Length: Combination
- Note Durations

Example 2

Ex: 13-15



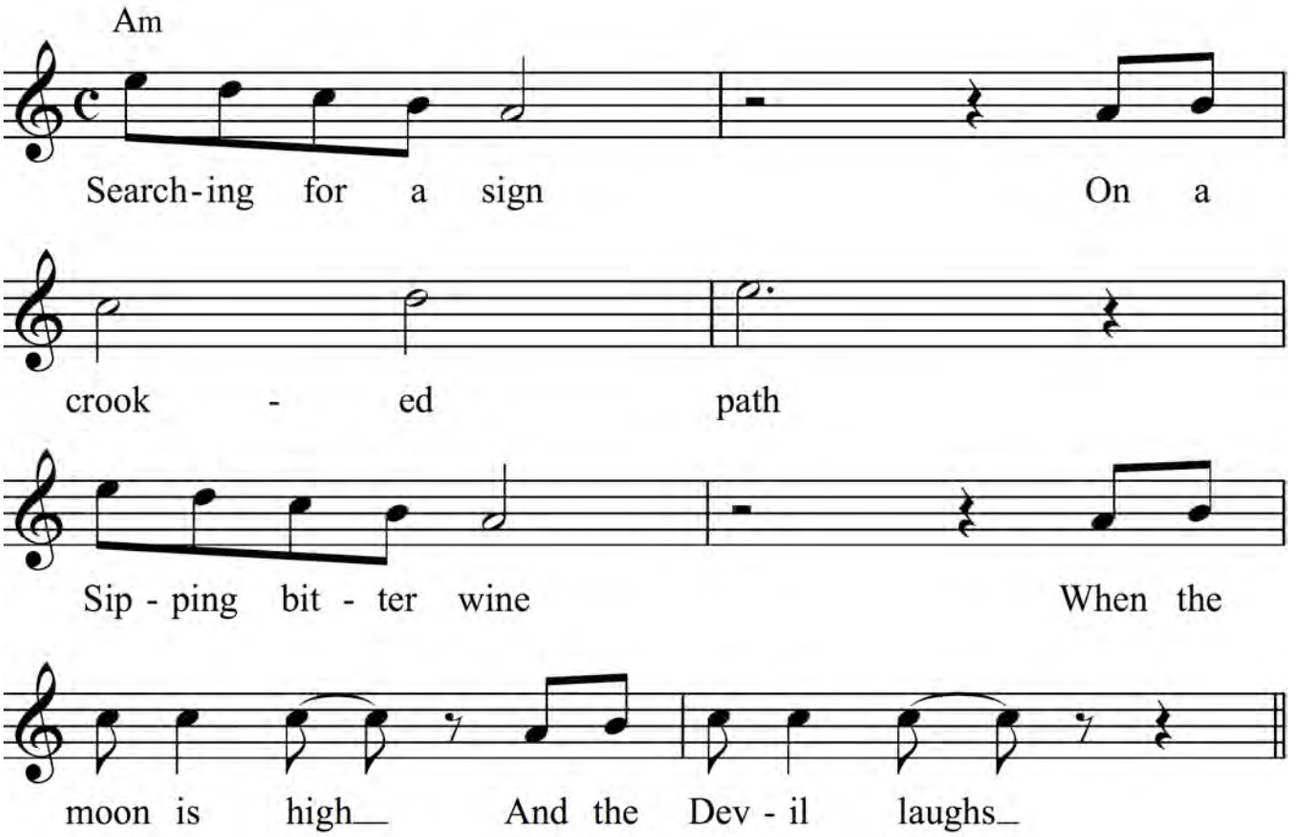
In example 2, the second phrase is an **Inversion** of the first, with the pitches going down instead of up. The inversion has been **Transposed** up a step however, now starting on A instead of G. The **Starting Point** of the first and third phrases is *On* the first beat of the measure, whereas the second and forth phrases begin *After* the beat. There is a **Leap Up** on the 2nd note of the first and third phrases, and a **Leap Down** on the 2nd note of the second and forth phrases. The rhythms of the first and third phrases each employ **Long Notes** their second note; on the third phrase this note is held out longer than on the first. Phrases two and four use shorter rhythms than phrase one and three for **Rhythmic Variety**. Notice also that on the third line, the 2nd and 3rd notes are higher than on the first line, to add variety to the melodic shape.

Techniques Used:

- Inversion
- Transposition
- Phrase Start Point
- Long Notes
- Leaps
- Rhythmic Variety

Example 3

Ex: 13-16



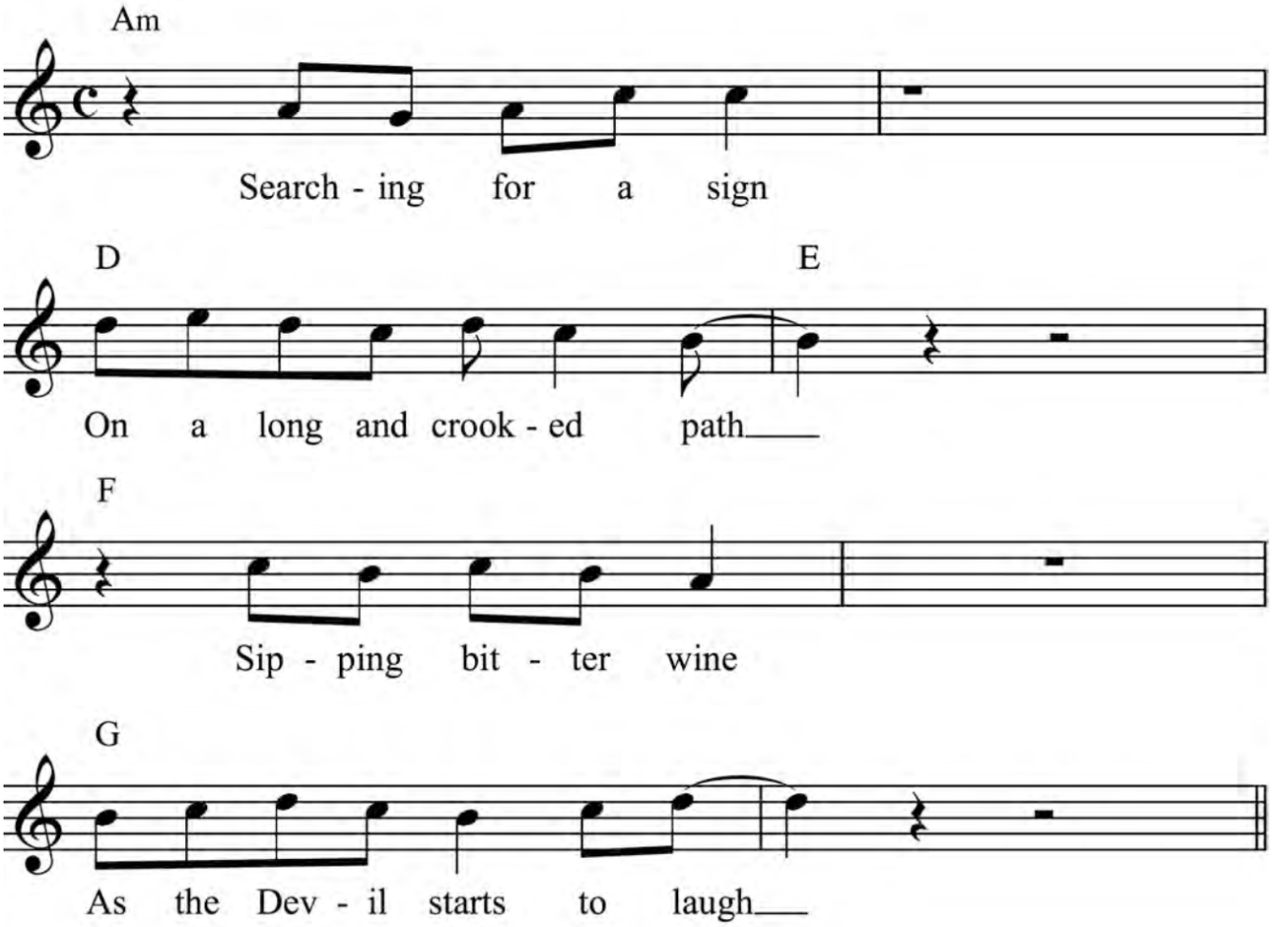
In example 3, the **Melodic Shape** is varied from phrase to phrase; it descends in the first and third phrases, ascends in the second, and mostly remains on the same pitch in the fourth. The **Starting Point** of the first and third phrases is *On* the first beat of the measure, whereas the second and forth phrases start *Before* the beat. The **Note Durations** are longer in the second phrase. The fourth phrase is repeated, creating an **Extra Line**, but this doesn't off-balance the section as it usually might, because the fifth line comes in right after the fourth with just a brief pause between the two, enabling them both to fit into the same two measures; so even thought there is an extra line, there are no extra measures added to the section. There is also **Syncopation** applied to the fourth and fifth phrases for Rhythmic Variety.

Techniques Used:

- Melodic Contour
- Phrase Start Point
- Note Durations
- Extra Line
- Syncopation

Example 4

Ex: 13-17



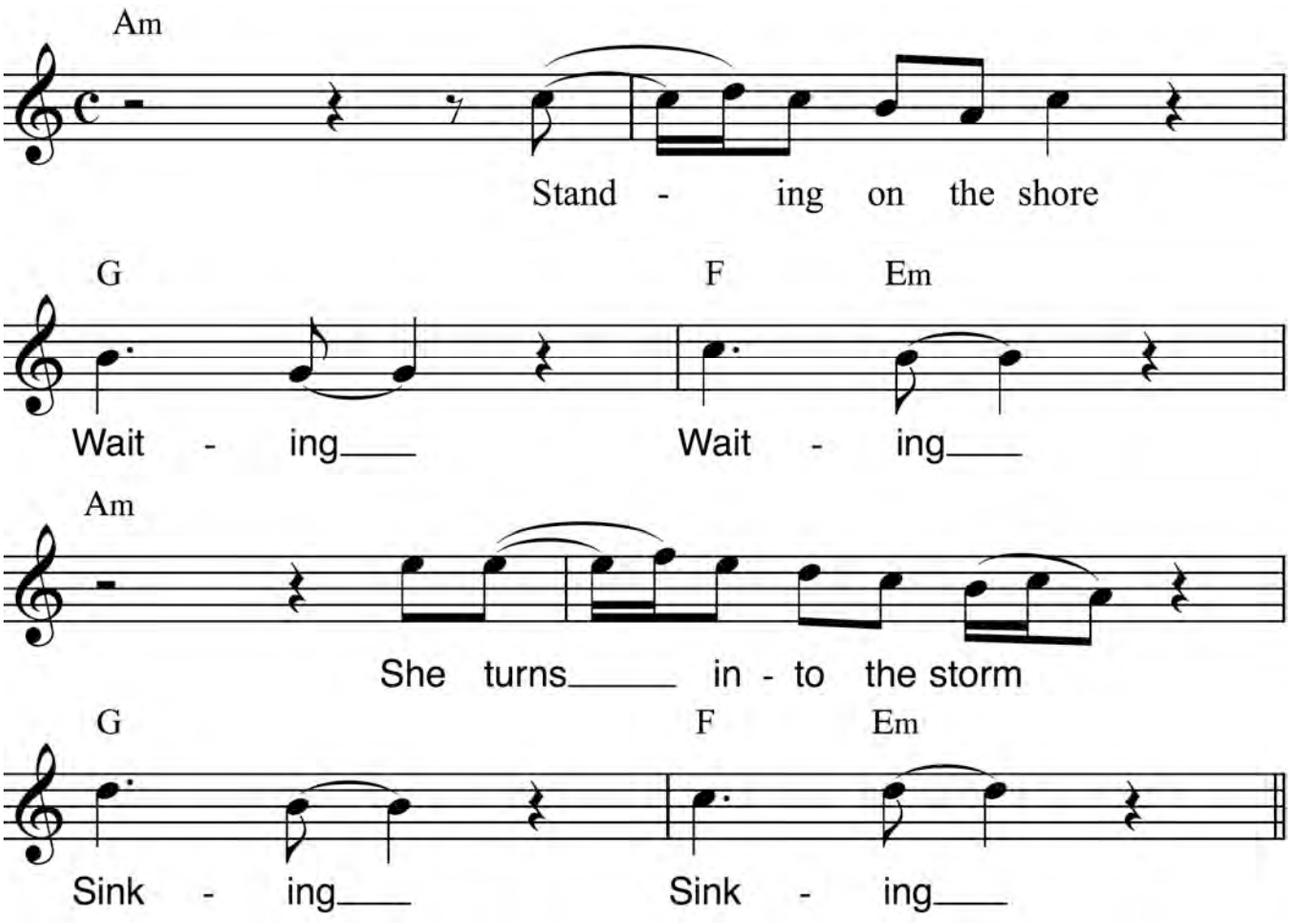
In example 4, notice how the **Starting and Ending Pitches** of each of the four phrases are all different from each other. Next, notice how phrase one and three have **Phrase Starting Points** *After* the first beat of the measure, and phrases two and four have **Starting Points** *On* the first beats. Also, notice how phrases two and four have extra notes, creating a longer **Phrase Length** than the other two. Additionally, phrases two and four contain some **Syncopation,** for Rhythmic Variety.

Techniques Used:

- Vary Starting and Ending Pitch
- Phrase Start Point
- Phrase Length Extension
- Syncopation

Example 5

Ex: 13-18



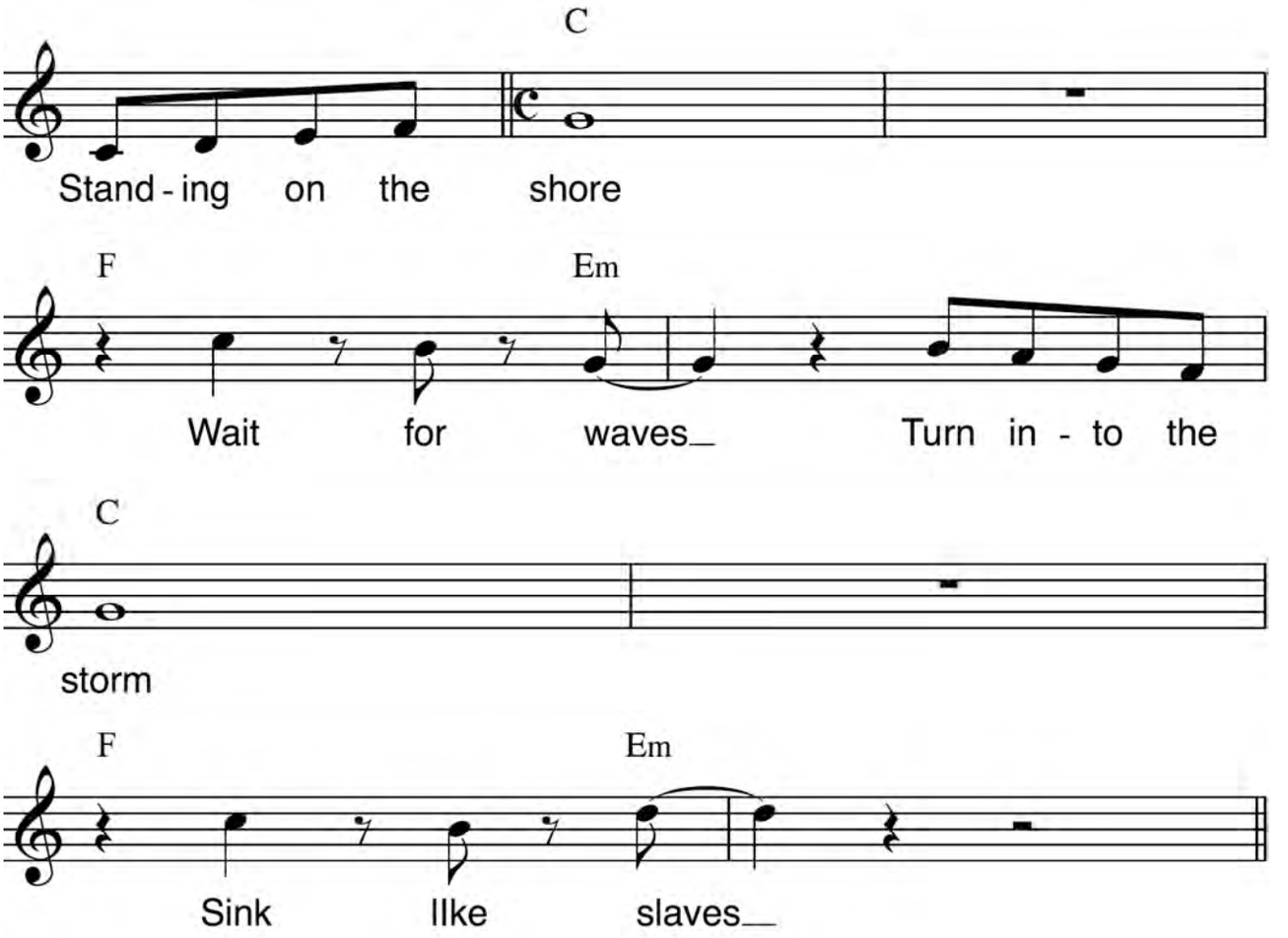
In example 5, phrases 1 and 3 employ **Rhythmic Displacement,** by being centered on the weak measures of the metric phrases. The same phrases are highly **Ornamented** with embellishing notes. Phrases two and four use **Fragmentation**, but only incorporating one of the fragments of the melody into each phrase, where it is repeated two times for each. Lastly, phrase three is a **Transposed** version of phrase one, being set a 3rd higher.

Techniques Used:

- Rhythmic Displacement
- Ornamentation
- Fragmentation
- Transposition

Example 6

Ex: 13-19



In example 6, the **Phrase Ending** technique is employed with phrases one and three, which each set the ending notes on the downbeat of the strong measures of the metric phrases. **Thinning** is the most obvious feature of phrases two and four, where it is used leaving rests, rather than extending the note durations to fill in the gaps. Phrases one and three are **Inversions** of each other, with the exception of each of their final notes; phrase one is ascending, and phrase three is descending. And lastly, **Syncopation** is employed in phrases two and four.

Techniques Used:

- Phrase Endings
- Thinning
- Inversion
- Syncopation

* * *

There are virtually no bounds to the amount of creative variations at your fingertips using these techniques. The possibilities for creating totally unique song sections using these tools are limited only by your level of facility with them, and your own creative imagination.

Final Exercise

Ex: Create a melody of your own, then either repeat it four times with different words for each line, or alternate it with a contrasting phrase. Experiment with all the methods of varying both the rhythm and pitch content for each phrase. It is a good idea to put a list of all the techniques out in front of you as you do this. A summary list is provided below for that purpose. You will want to continue practicing each of the techniques individually, but you should also make this final exercise part of your regular practice routine. It will help you apply the techniques in a less isolated manner, which will be more in line with the way that you will use these skills within your own songs. As you begin to feel confident with these techniques, you should naturally start using them to edit your songs.

Rhythm

- **Phrase Start Point**
- **Note Durations**
- **Long Notes**
- **Rhythmic Displacement**
- **Phrase Endings**
- **Syncopation**
- **Rhythmic Variety**
- **Phrase Length**
- **Space**
- **Extra Line**
- **Speed of Phrases**

Pitch

- **Scales**
- **Melodic Development Techniques**
- **Contour and Melodic Outline**
- **Intervallic Expansion and Contraction**
- **Permutation**
- **Tendency Tones**
- **Vary Starting and Ending Pitches**
- **Transposition and Sequencing**
- **Inversions**

Rhythm and Pitch

- **Keep One Change the Other**
- **Ornamentation**
- **Thinning**
- **Cadence**
- **Retrograde**
- **Combining Techniques**

Conclusion

All of the techniques discussed so far will prove to be exceedingly useful as we discuss how different sections of a song are organized together into an entire song form. When aspiring to captivate a listener's attention as your song moves from section to section, being adept at differentiating your melodic phrases is a prerequisite skill to have learned. Now for the exiting part! Let's put all these skills together into a final masterpiece.

PART 5:
SONG FORMS

14. Melody and Song Form

This chapter will cover techniques used to develop a melody throughout the various sections of an entire song. It will also detail the different types of melodies that are most effective for different types of song section. You have learned many techniques throughout this book for creating and varying melodies. In order to contrast sections from one another, it is a simple mater of evaluating what techniques you have used in one section, and using them differently, or using different techniques, for the next type of section.

Song Sections

Below is a description of the most commonly used types of song sections.

Primary Sections

Verse: The Verse is the section of a song that repeats, using the same melody with different words. This section usually describes what the song is about, or tells the story.

Prechorus: The Prechorus is a transitional section between the Verse and the Chorus. It is usually shorter than the other sections, and often uses various melodic techniques to create a build in energy towards the Chorus.

Chorus: The Chorus is the section that repeats, using the same lyrics each time. It contains the central statement of the song, and usually contains the hook, which often includes the title. It is called the Chorus because it is the part of the song that everybody can easily remember and sing along with.

Bridge: The Bridge is a contrasting section that usually occurs only once within the song. It uses new melodic material, and often gives a different perspective with the lyric content. It is called the Bridge because it connects two parts of the song with contrasting material.

Auxiliary Section

Intro: This is the very beginning of the song. It often uses musical material from either the Verse or the Chorus. An intro sometimes contains an Instrumental hook, like a short melodic phrase played on an instrument. When this occurs, the Intro is sometimes repeated prior to each Verse.

Outro: This is the last part of the song. It is normally a short, reverse Intro, but sometimes it is an entirely new song section that could continue for quite a while.

Breakdown: This is a contrasting section that is only used once within a song. In a Breakdown, the music gets quieter and the instrumentation thins out, while new vocal material is presented.

Solo: This is a contrasting section that is normally only used once in a song. It is an improvisational section that features one of the instruments.

Instrumental Interlude: This is a contrasting section that normally only occurs once in a song. It is often used instead of a solo. An instrumental Interlude presents a melody played on an instrument, without the use of improvisation that is common in solos.

Refrain: This is not really a whole song section; it is only part of a section. The refrain is a contrasting phrase within the Verse that contains the hook. It normally occurs at the very end of the Verse, but sometimes it appears at the beginning. A refrain is mainly used in songs that don't have Choruses, but occasionally you will find a song that both utilizes a refrain at the end of the verses, and uses Choruses. A refrain can also appear at the end of a Chorus that did not use the title up until that point. This is a common technique used in the choruses of Country music.

Song Forms

Below is a list of the four most commonly used Song Forms.

Blues Form:

There are many variations of The Blues song form, but the generally accepted definition refers to a 12-bar repeated chord progression that uses all dominant 7 chords build from the 1st, 4th, and 5th degrees of the Major Scale (I7, IV7, V7). So in the key of C the chords would be C7, F7, and G7. The melody will normally present three phrases within the 12-measure section, and utilize the Blues scale. The lyrics are often repeated in the second phrase, and the title presented in the third phrase, as in the example below entitled "Shaking My Bones."

Been Walking all day, just tryin' to get home
Been Walking all day, just tryin' to get home
The weight of the world's been shaking my bones

Sometimes only every other section of lyrics will contain the title, with the alternating sections utilizing more descriptive lyrics to tell a story. The Blues Form is known for its Instrumental Solos. Since this form is so repetitive, the solos supply a helpful dose of variety to the music.

Verse-Refrain:

This song form follows an ||:A A A A:|| format, where each A section is repeated Verse. Verse-Refrain is used a lot in Folk, and Folk-Rock music. The title will normally appear in a Refrain at the end of each Verse. This could occur at either the beginning or end of the verses, but it is more commonly placed at the end. The title will normally use different phrasing techniques to contrast it with the other phrases of the verse, so that it stands out.

AABA and ABAC:

These were the song forms that were in primary use throughout the first half of the twentieth century in popular music. Much of that music is now relegated to the category of Jazz Standards, due to the fact that jazz players found the sophisticated harmony of the songs of that era to be the perfect format for improvisation. In these forms, each section, A,B, or C, is commonly 8-bars long, which creates a 32-bar song form. The form is repeated, often with instrumental solos in subsequent repetitions. These forms are not completely extinct; they are still used occasionally today in popular music.

Verse-Chorus:

The Verse-Chorus song form, and its many variations, is the one with which we are all most familiar. Below are some variations of this form.

<u>Variation 1</u>
Verse-Chorus
Verse-Chorus
Solo
Verse-Chorus-Chorus

<u>Variation 2</u>
Verse-Prechorus-Chorus
Verse-Prechorus-Chorus
Bridge-Interlude
Chorus-Chorus

<u>Variation 3</u>
Intro
Verse-Chorus
Verse-Chorus
Breakdown
Verse-Chorus-Chorus
Outro

Many of these sections can be mixed and matched, but a common feature is for the Bridge, Solo, Interlude, or Breakdown, to occur after two repetitions of the Verse-Chorus, and before the final Choruses. This is done to insert some variety in-between the repeating sections, so that when the Chorus appears at the end it seems fresh and new again.

Since over ninety-five percent of songs today use some variation of the Verse-Chorus song form, we will deal primarily with melodic development within this form.

How to Contrast Sections

The main concern when writing various sections for a song should be how to contrast them from each other in the most effective manner. A common problem with beginning songwriters is that the Verse, Chorus, and Bridge, of a new song will all sound almost the same, with the exception being that the chorus might contain the title. Developing these into unique sounding song sections, that still seem to belong together, can often be challenging.

We will begin our study of contrast with general techniques that can be used to differentiate any type of song section, enabling each to maintain a unique identity within the song form. Then we will explore those specifically related to the different types of sections.

General Section Contrasting Techniques

Phrase Start Point

The very first thing that I ask when developing a song form is "Does each type of song section start at the some place?" If they do, then no matter what other techniques are applied, the song will still have a strong risk of sounding monotonous. If you are using all of the primary song sections—Verse, Prechorus, Chorus, and Bridge— you do not need every section type to use a completely different starting point, but the more you vary this parameter, the more eloquently constructed your song form will become, and it is not that difficult to do.

Example 1:

Verses:	Begin **Before** the Downbeat
Prechoruses:	Begin **After** the Downbeat
Choruses:	Begin **On** the Downbeat
Bridge:	Begins **Out-of Sync** in 2nd measure (Rhythmic Displacement)

Example 2:

Verses:	Begin **On** the Downbeat
Prechoruses:	Begin **Before** the Downbeat
Choruses:	**End On** the Downbeat (Highlights last word of title)
Bridge:	Begins **After** the Downbeat

Note Durations

Varying slow, medium, and fast note durations in different section types will produce good contrast.

Example:

Verses:	Mostly 16^{th} notes
Prechoruses:	Mostly 8^{th} notes
Choruses:	Mostly half and whole notes
Bridge:	Mostly quarter notes

These can be mixed and matched in any order that works for the song, but long notes tend to be more common in Choruses, because they emphasize the title, and it is easy for others to sing and remember them.

Rhythmic Contrast

Varying the following rhythmic categories between types of sections can produce great results when seeking more contrast.

1) Straight versus Syncopated rhythms
2) Triplets versus Duple Meter (Non-triplets)
3) One or Two Long notes versus no Long Notes
4) Mostly Uniform verses a Variety of Note Durations
5) Rhythmic Displacement verses Standard Metric Phrasing

Pitch Contrast

Varying the pitch content between types of sections can also produce great results when seeking more contrast.

1) Utilize Different Melodic Development Techniques
2) Apply Intervallic Expansion and Contraction
3) Use some New pitches in different sections

4) Vary the Contours and Melodic Outline
5) Try Key change for extreme contrast

Phrase Length

This technique can really help to differentiate song sections. If all your sections contain the same phrase lengths for the melodies, they run the risk of sounding monotonous. Try varying the phrase lengths for each section type.

Method: Vary one, two, three, and four measure phrases for different types of sections. Keep in mind that a melodic phrase is considered to be part of the Metric phrase in which it is placed. For example, a 1 ½-measure melody that begins on the downbeat of the first measure, would be considered a 2-measure phrase. It consumes the space in the second half of measure two as part of its overall length within the meter.

Example

Verses:	Two 4-measure phrases
Prechoruses:	Three 1-measure phrases
Choruses:	Four 2-measure phrases
Bridge:	Three 3-measure phrases

Space

If one section type has melodies coming one after the other without much pause, give the next type more breathing room. To accomplish this you could set short melodies to long metric phrases. For example, you could place a 1-measure melody within each 4-bar subdivision of the section, and repeat it only twice for an 8-bar song section.

Speed of Phrases

Accelerating and Decelerating the speed between section types will help differentiate them very effectively. This can be accomplished by manipulating the parameters of, Space, Phrase Length, and Note Durations.

<u>To Accelerate Phrases:</u>

1) Eliminate Space between Phrases
2) Shorten Phrases
3) Use Faster Rhythms within Phrases

To Decelerate Phrases:

1) Add Space between Phrases
2) Lengthen Phrases
3) Use Slower Rhythms within Phrases

Tessitura

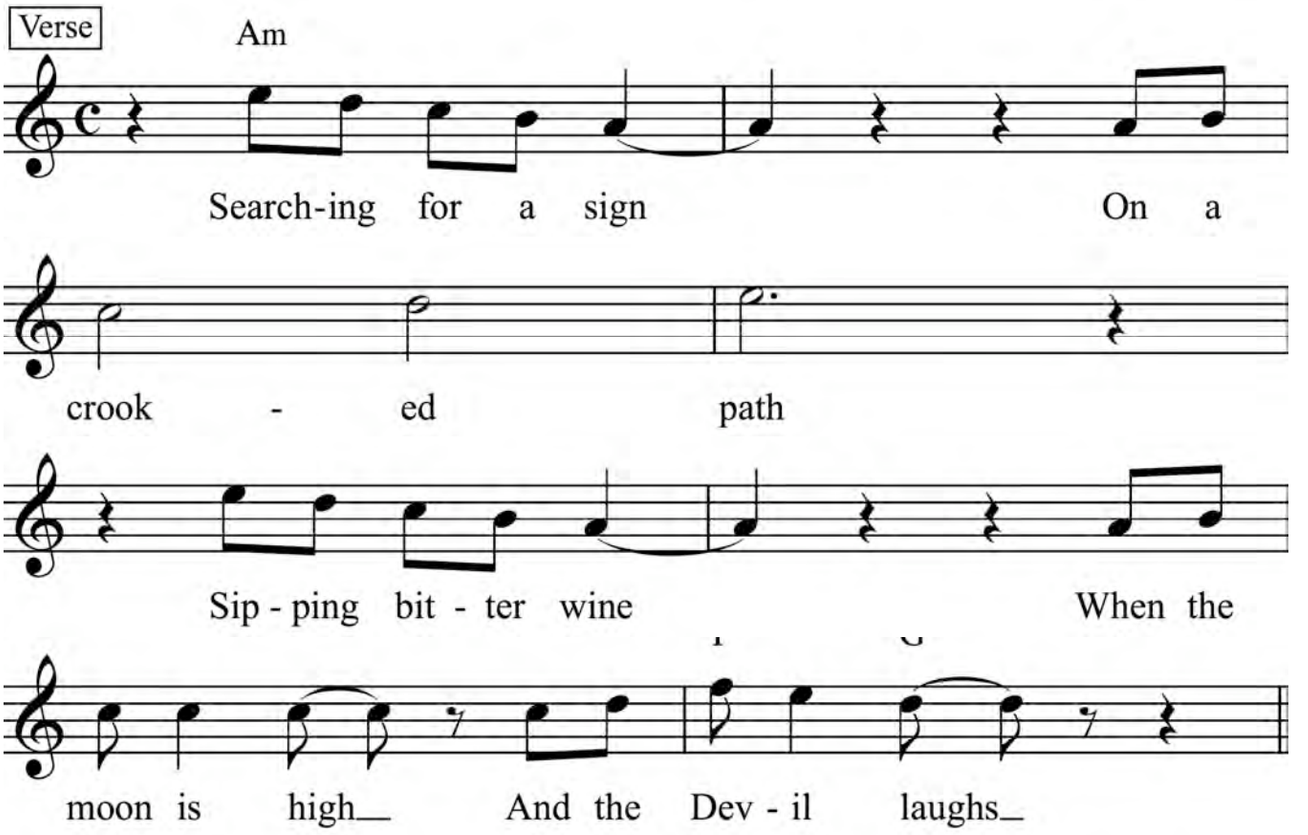
Tessitura refers to the majority of pitch placements within a melody, or what range most of the pitches stay within. Are the pitches mostly low, medium, or high, in relation to the overall melodic range of the section, or of the song as a whole? Varying Tessitura between section types is a very common way to use pitch to differentiate sections.

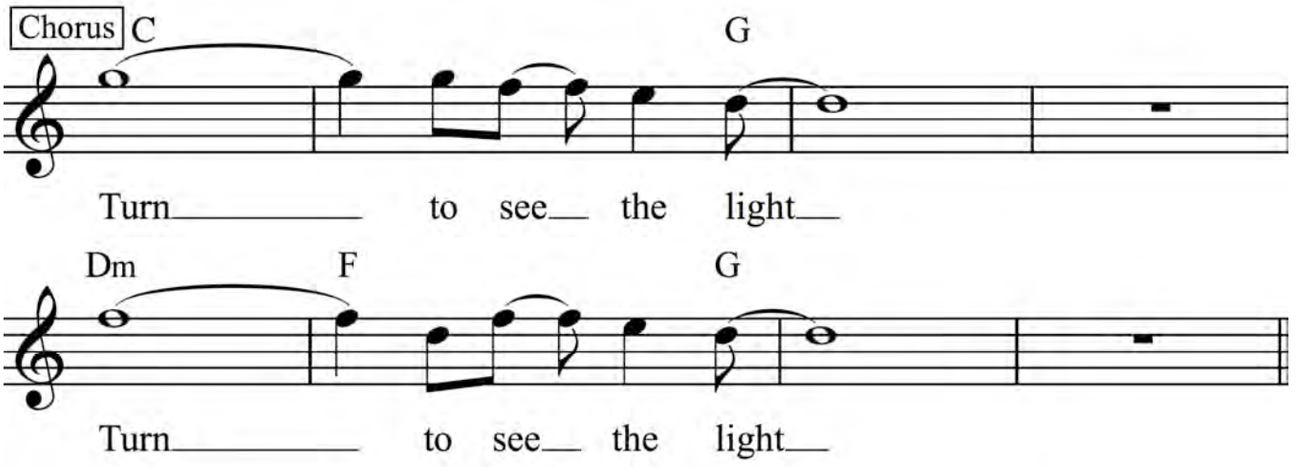
Example

Verses:	Low Tessitura
Prechoruses:	Medium Tessitura
Choruses:	High Tessitura
Bridge:	Medium to High Tessitura

Example of Contrasting Melody Across Song Sections

Ex: 14-1





Techniques Used

Phrase Start Point:
The Phrases begin *After* and *Before* the downbeat for the Verse, and *On* the downbeat for the Chorus.

Rhythmic Contrast:
Two Long Notes occur in each Chorus phrase, none occur in the Verse. The Verse has long notes in line two, but they are part of an overall Note Duration expansion for that entire phrase, which is a different technique than mixing in long notes with other types of note durations.

Pitch Contrast:
The New Pitch, a high G, occurs in the Chorus.

Phrase Length:
The Verse utilizes two-measure phrases at the beginning, and one-measure phrases at the end. The Chorus uses Four-measure phrases.

Space:
The Chorus employs a significant amount of more Space between phrases than does the Verse.

Tessitura:
The overall pitch Tessitura is higher in the Chorus.

Techniques for Contrasting Specific Types if Sections

Verse

The verse is primarily used for story telling, as opposed to being used for singing out gigantic hooks. Following this general purpose of the verse, we can apply some guidelines to help create verses that sound like verses, and not some other type of song section.

- Melody tends to be Lower
- Contains faster, and more conversational rhythms
- Fewer Long Notes
- Less Space between phrases

Chorus

The Chorus is the part that sums up the story line that was presented in the Verses, with the hook of the song. Here are some guidelines for writing good chorus melodies.

- Hook or Title is in the Chorus
- Melody is Higher
- Long Notes are more common
- More repetitive melodies, especially of the Title or Hook
- More Space between phrases
- New Pitches that have not been uses yet are added

Prechorus

The Prechorus is the section that creates a transition and builds momentum to the Chorus. That is its primary purpose. Here are some guidelines for writing Prechoruses.

- Pitches of the melody rise
- Phrases speed up
- Shorter phrases are used
- Often uses Asymmetry (For example: 3 short phrases)

Bridge

The Bridge is a contrasting section that is not repeated. Here are some guidelines for creating Bridges.

- New Tessitura
- Employ any elements that contrast this with the other sections
- Sometimes uses Asymmetry (For example: 3 phrases)

When building the overall structure of a song, the main question to ask will be "What stays the same, and what changes, between the section types?" You will want to keep some things the same, in order to make the sections sound like they belong together. Some of the main parameters to keep consistent would normally be the Key, Tempo, and Meter, although you will find examples of more experimental songs that do vary these between sections. And then you can choose which other features of your melodies you would like to keep consistent throughout the song. You won't need to vary every parameter for each different song section types. That might create too much variety, which could cause you to lose cohesiveness within the song. But if you don't vary any of them between section types you run the risk of every section sounding like a verse.

Building Momentum

Contour and Melodic Outline

We have previously discussed the Contour and Melodic Outline for individual phrases, and for song sections. Here will examine them in relation to Song Systems, and the Song Forms. A system refers to a set of repeated section types, such as a verse-prechorus-chorus, or a set of sections that only appear once within the form, such as a bridge-solo.

Here is a review of the six types of melodic shapes:

Repeated-Pitch
Ascending
Descending
Arch
Inverted-Arch
Varied

Seek balance between the contours of the different systems. For example, if all the phrases of the verse utilize repeated pitches, this could be balanced with phrases that ascend in the prechorus, are varied in the chorus, and descend for the bridge. It is not usually very effective to maintain the same melodic shapes for every section type.

Examining the overall melodic outline can be very helpful when dealing with song systems and song form. For example, a verse-prechorus-chorus system that has an overall ascending melodic outline can be very effective. This can create a strong build to a climax in the Chorus.

New Pitches

Adding pitches that have not been heard before, and placing them only in certain section types can be a very effective way to build momentum. This is especially useful when adding higher pitches for either a chorus or bridge.

Speed of Phrases

Both the rhythms within the individual phrases, and the rate at which the phrases enter, will greatly influence the momentum of the sections. Faster rhythms and more rapid phrase entrances, will increase momentum; and of course the shorter the phrases are, the more quickly one can enter after another, so shorter phrases can also help increase momentum. Slower rhythms and less rapid phrase entrances will slow momentum and create emphasis; and of course the longer the phrases are, the slower the entrances will be, so longer phrases also help decrease momentum.

Open versus Closed Sections

There are both pitch and rhythm factors that will cause a section to sound either open or closed. They will be examined below. An open section will create momentum into the next part of the song, and a closed section will cause a sense of finality. When building a verse-chorus, or verse-prechorus-chorus system, it is not normally a good idea to completely close the verse or prechorus before reaching the climax at the chorus. Conversely, you will usually want to create closure at the end of a chorus, so that you can go back and repeat the sections anew.

<u>Factors that determine open verses closed sections</u>

Asymmetry = Open Symmetry = Closed

1) Number of Phrases:

Odd Number of Phrases will leave a section open.

2) Length of Phrases:

Unbalanced phrase lengths, like making the last phrase of a section longer or shorter than the others, will leave a section open.

3) Order of Phrases:

If the phrases containing variations of any of the parameters discussed, such as note duration, start point, and phrase length, are not ordered in a symmetrical manner, the section will remain open. For example, if one phrase uses rhythm a

and another uses rhythm b, the following orders will form balanced and closed sections (aaaa, abab, aabb), but these orders will form unbalanced, open sections (aaba, abaa, aaab).

4) Melodic Contour

If the melodic contours of the phrases are not balanced, the section will remain open. For example, if phrases 1 and 3 are ascending, and phrase, 2 is stationary, but 4 is descending instead of stationary like phrase 2, the off balanced contours will keep the section open.

5) Stability of Ending Pitch

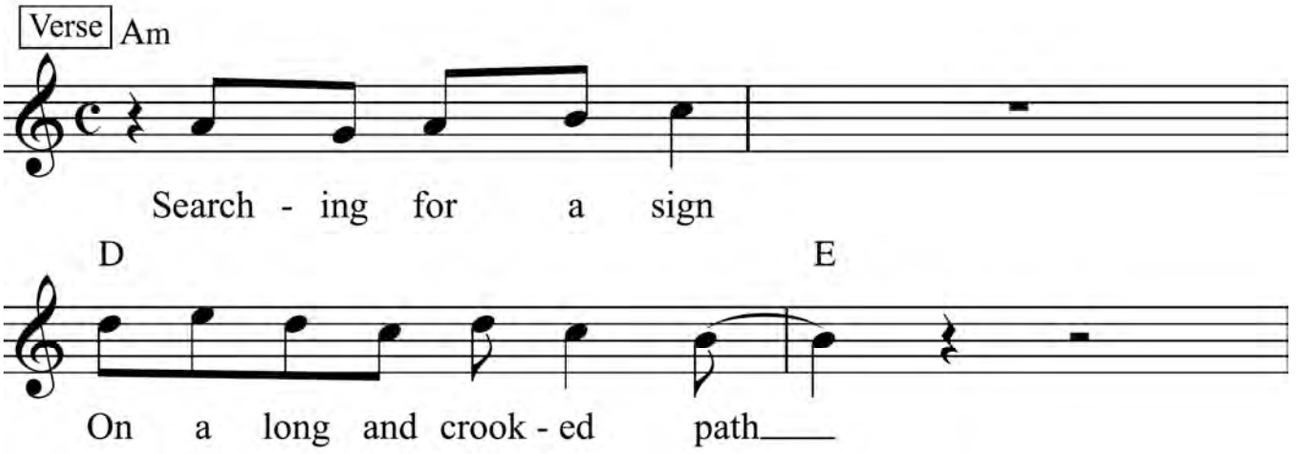
This last factor related to closure doesn't deal with Symmetry, but involves Melodic Cadences. If the last pitch is an unstable tendency tone, the section will remain open. If the last pitch is a stable tendency tone it will close the section, and if it is the root of the key, it will create a strong closure known as a Melodic Cadence.

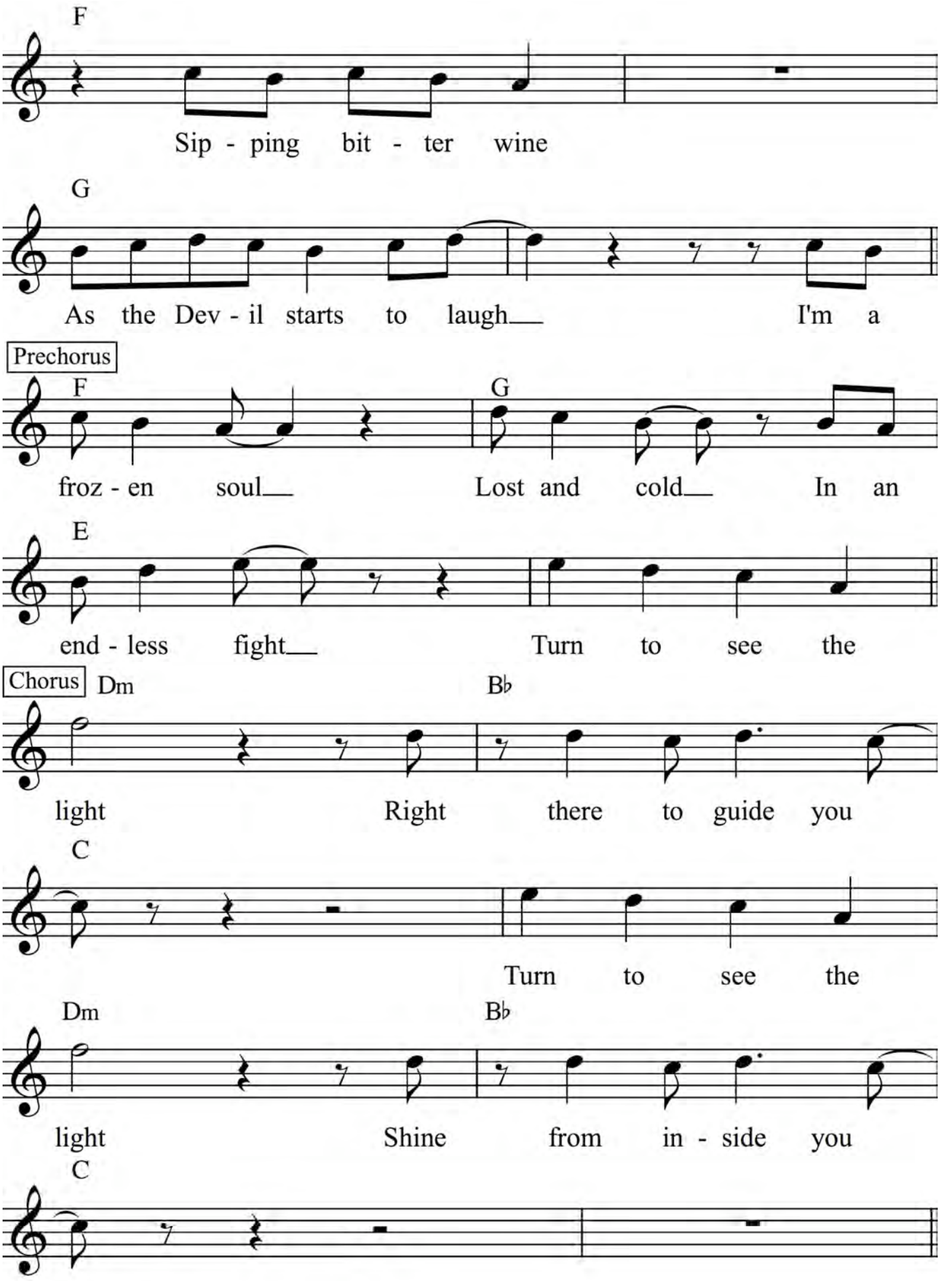
* * *

It will be a combination of all these factors that determine the overall closure of a section. Keep in mind that there will be places, such as at the end of a chorus, where a strong sense of closure is desired, and there will be places, such as at the end of a prechorus, where leaving the section open is essential to the momentum of the system.

Example of Techniques for Specific Types of Sections, Building Momentum, and Creating Closure

Ex: 14-2




F
Sip - ping bit - ter wine
G
As the Dev - il starts to laugh I'm a
Prechorus
F
froz - en soul
G
Lost and cold In an
E
end - less fight
Turn to see the
Chorus
Dm
Bb
light Right there to guide you
C
Turn to see the
Dm
Bb
light Shine from in - side you
C

Techniques used for different Section Types

Verse: Lower Pitches, Faster Rhythms, no Long Notes

Prechorus: Pitches Rise, Shorter Phrases, Phrases Seed Up, Assymetrical Section (3 phrases), New Notes are introduced.

Chorus: Hook and Title present, Melody is Higher, Longer Note Durations, Hook is Repeated exactly, More Space between phrases, New are Notes introduced.

Techniques used to build Momentum

Overall Melodic Outline Ascends, New Pitches introduced in each section, Speed of phrases increases in prechorus. Both the verse and prechorus end rhythmically and melodically open.

Techniques used to create Closure

The Chorus is a closed section, with an Even Number of Phrases, Balanced Length of Phrases, Symmetrical Order of Phrases, Melodic Contours that are balanced, and an ending note on the Tonic (Root), which is the most Stable Pitch in the key.

Techniques for Emphasizing Title

Phrase Endings

Placing the last note of the title on the downbeat of the first measure of the chorus.

Extra Line or Refrain

Interestingly enough, adding an extra line to a symmetrical chorus can actually increase its sense of finality, even though this will off-balance the section, when you place the title in the last line.

No Rhyme

This has more to do with lyrics than melody, but if there are lines that rhyme in the chorus, not rhyming the title will help it to stand out.

Contrasting Phrases

Rather than alternating the title with a similar melodic phrase in the chorus, utilizing a very different contrasting phrase will help the title to stand out.

Long Notes

The title is the most common place in the song to use long notes, because they strongly emphasize the phrase.

Repetition

Repeating the title, or certain words in the title, creates emphasis.

Follow the Riff

Some songs use riffs instead of chord progressions for certain sections. If your song is constructed in this manner, and has a riff that is repeated for both the verses and choruses, one way to emphasize the title is to use contrasting melodies that go against the riff for the verses, but that follow the riff note-for-note for part or all of the title.

Common Chorus Title Structures

4 Line Chorus	Example
Title Line 2 Title Line 4	Hidden Agenda Behind dark eyes Hidden Agenda What do you hide
Line 1 Title Line 3 Title	Behind dark eyes Hidden Agenda What do you hide Hidden Agenda
Title Title Title Line 4	Hidden Agenda Hidden Agenda Hidden Agenda What do you hide
Title Title Title Title	Hidden Agenda Hidden Agenda Hidden Agenda Hidden Agenda

5 Line Chorus	Example
Title Line 2 Title Line 4 Title	Hidden Agenda Behind dark eyes Hidden Agenda What do you hide Hidden Agenda
Line 1 Line 2 Line 3 Line 4 Title	What do you hide Just daydreaming Behind dark eyes Always scheming Hidden Agenda

How to Use Refrains

If your title occurs in a refrain at the end of a verse, here are three ways to help make it stand out.

1) Use a strong cadence that sets the last pitch of the melody on the root of the key.
2) Make the refrain either longer of shorter than the rest of the phrases in the verse.
3) Add additional measures for the refrain, changing an 8-bar verse into a 10-bar verse-refrain, for example.
4) Use completely different rhythms, start point, note durations, and any of the other parameters that can be varied in a melody, to help differentiate the refrain from the other lines.

Conclusion

This has been an overview of Song Form as it relates to melody. Following the guidelines above will help you to weave together song sections into a balanced song that flows effectively from one section to the next.

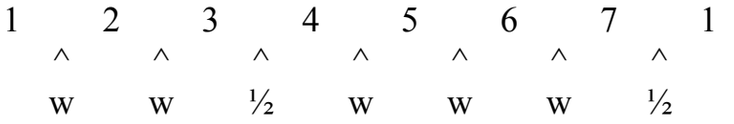
There will be much greater detail about the development of Song Form presented in the companion book to this series related to Song Form, Rhythm, and Arranging. In that book, all of the other components of a song, such as melody, lyrics, and harmony, in addition to the groove, style, and arrangement of a song, will come into detailed consideration as we take a much more comprehensive look at Song Form.

PART 6:
HARMONY

15. Chord-Melody Relationships

Harmony refers to Chords, which are specific groups of pitches voiced simultaneously. So far we have covered melody in depth, as it applies to single phrases, song sections, and song form as a whole. But we have not discussed chords at all. When adding chords to a melody, or when building a melody from the chords up, an additional level of complexity is added to the equation. It was necessary to isolate both the pitch and rhythm components of melody, in order to go in-depth into all of the myriad parameters that can be controlled and adjusted when making a melodic masterpiece. Now we can look at Harmony, and how it relates to Melody.

Chords are built from scales, just as melodies are, but they are constructed a bit more mathematically. A Major Scale contains 7-pitches. A chord can be built from each of these pitches by simultaneously playing every other pitch of the scale at the same time as the first one, until you have reached a total of three pitches. For example, when building chords from the numeric formula for the Major Scale we arrive at the following chord structures.



Chord	Pitches	Quality
I	1 3 5	Major
ii	2 4 6	Minor
iii	3 5 7	Minor
IV	4 6 1	Major
V	5 7 2	Major
vi	6 1 3	Minor
vii	7 2 4	Diminished

A three-pitch chord is called a triad. Roman numerals are normally used to designate chords, whereas Arabic numerals are used to designate individual pitches. Notice that once we get to the IV chord, the last pitch is 1, instead of 8. That is simply because we are beginning the scale again the next octave higher. Also notice that some of the Roman Numerals are lower case. This is a common way to indicate minor chords rather than major ones. The three pitches of any triad are referred to as the Root, 3rd, and 5th, of the chord, respectively. Major and Minor chords differ in that the 3rd of the chord is a half-step lower for minor chords than it is for major chords. This is due to the inherent half-step/whole-step relationships within the scale formula. The vii chord is the only diminished chord in the scale. Diminished refers to lowering the 5th by a half-step, in addition to the 3rd. A diminished chord is like a minor chord with a lowered 5th. All of the other chords in the scale maintain the same distance between the Root and 5th.

In any Major Scale, the chords qualities will follow this format:

Major	I IV V
Minor	ii iii vi
Diminished	vii

In the key of C Major, here is how the letter names will lay out:

C D E F G A B C

^ ^ ^ ^ ^ ^ ^

w w ½ w w w ½

Chord	**Pitches**	**Quality**
C	C E G	Major
Dm	D F A	Minor
Em	E G B	Minor
F	F A C	Major`
G	G B D	Major
Am	A C E	Minor
Bdim	B D F	Diminished

Major	C F G
Minor	Dm Em Am
Diminished	Bdim

To create 7th chords, while continuing to utilize every other pitch, simply add the next pitch to the triad: Root, 3rd, 5th, and 7th. These chords will have four different constructions when built from a major scale.

Major 7th	Major Triad with a 7th a half-step below the octave
Dominant 7th	Major Triad with a 7th a whole-step below the octave
Minor 7th	Minor Triad with a 7th a whole-step below the octave
Minor 7(b5)	Diminished Triad with a 7th a whole-step below the octave (also called Half-Diminished 7th)

In any Major Scale, the 7th chords qualities will follow this format:

Major 7th	I IV
Dominant 7th	V
Minor 7th	ii iii vi
Minor 7(b5)	vii

In the key of C Major, here is how the letter names will lay out:

7th Chord	**Pitches**	**Quality**
Cmaj7	C E G B	Major 7th
Dm7	D F A C	Minor 7th
Em7	E G B D	Minor 7th
Fmaj7	F A C E	Major` 7th
G7	G B D F	Dominant 7th
Am7	A C E G	Minor 7th
Bm7(b5)	B D F A	Half Dim7th

Major 7th	Cmaj7 Fmaj7
Dominant 7th	G7
Minor 7th	Dm7 Em7 Am7
Minor 7(b5)	Bm7(b5)

9th, 11th, and 13th chords can be constructed in a likewise manner to the way in which 7th chords are built. These are considered Upper Extensions of the chord. The 9th, 11th, and 13th degrees of the scale are really the same pitches as the 2nd, 4th, and 6th, respectively, set an octave higher, but they imply the presence of the 7th. When a 2nd, 4th, or 6th appears in the chord label, it is understood that there will be no 7th in the chord. These are referred to as either Added-Note chords, which add a pitch other than the 7th to a triad, or Suspended chords, which replace a chord tone in a triad with an adjacent pitch other than the 7th.

So in addition to the quality of the chord, such as major, minor, or diminished, dominant 7th, etc., chords can be divided into four different categories:

1) Triads
2) 7th Chords
3) 7th Chords with Upper Extensions
4) Added-Note, or Suspended Chords

Alterations to the chords are also possible, such as C7(#9)

This is as far as we are going to go into the theory of chord construction in this book. Chords are covered much more extensively in the companion book on Harmony. We have just covered quite a few basics, which will be sufficient to help you understand the following concepts about Chord-Melody relationships.

Single Chords

When building a melody over a single chord, you will be able to use any of the melodic development techniques discussed so far, but now the chord tones will be much more

stable in the key, and will sometimes override the level of stability of the tendency tones of the scale. The scale tones which lie in-between the chord tones will either add a suspended sound to the chord, or will clash with it. As a general rule, if a non-chord tone is a whole step above a chord tone, it will create a suspended sound, which can be very nice in the right situation. Although you will not want to keep it suspended forever, because it will have a strong tendency to resolve to the nearest chord tone. If a non-chord tone is a half-step above a chord tone, it will tend to clash, creating a strong dissonance. This is ok if it is a brief passing tone, but it could sound very harsh if you were to stay on that pitch too long. The exception to the clashing half-step guideline would be if it replaces another chord tone altogether, as would be the case with a 7sus4 chord, which replaces the major 3rd with the 4th degree of the scale, making the 4th degree an actual chord tone.

A single chord played for a section of a song will usually be the I chord in that key, whether major or minor. Here is a synopsis of how all of the pitches within a Major or Minor scale will relate to the I chord in the key.

Scale degrees relation to Major I chord

1	Root of Chord	Stable
2	whole-step above	Suspended
3	3rd of chord	Stable
4	half-step above	Dissonant
5	5th of chord	Stable
6	whole-step above	Suspended
7	2 whole-steps above	Suspended

Scale degrees relation to Minor i chord

1	Root of Chord	Stable
2	whole-step above	Suspended
b3	b3rd of chord	Stable
4	whole-step above	Stable
5	5th of chord	Stable
b6	half-step above	Dissonant
b7	1 ½ -steps above	Suspended

If the chord is a 7th chord rather than triad, the 7th will be a stable tone, because it is present in the chord itself.

The following are considerations for melodies built on single chords.

1) Don't sing the root too often. It is very stable, but it can sound muddy when the harmony, the melody, and potentially the bass-line, are all on the same pitch.

2) Only use dissonant pitches (half-step above a chord tone) as brief passing notes.
3) Non-chord tones can be used as passing tones to connect the more stable chord tones. They can also be held out longer to create a suspended effect.

Here are some pitch techniques to experiment with when developing a melody built on single chords.

1) Stay on one chord tone only and create a rhythmic melody.
2) Pick a chord tone and go back and forth between the upper or lower neighbor tones.
3) Go back and forth between two chord tones.
4) Pick pitches of the chord and use scale tones as passing tones between them.
5) Use arpeggios (singing the chord one note at a time) in various different orders, or into the next octave up or down. These can be a little harder to sing than step-wise melodies but can sound quite dramatic when used in the right places.
6) Sing scale passages. These are sometimes heard as arpeggios with passing tones when sung in the context of chords.

Combining these ideas with various rhythm techniques can help you build good melodies over single chords. But as you experiment, keep in mind that a good melody for your song will usually maintain a certain level of simplicity. You may find quite a few complex arrangements of pitches and rhythms as you practice, but it will often be that three or four note melody that creates the biggest hook.

Exercise: Practice creating melodies over the chords listed below. Notice that the scales you use will naturally match the quality of the chord. For instance, over a Cm chord you will most likely find yourself singing a C minor scale, although there are some other possibilities for each chord. Also notice that the chord tones will supply much more structure for your pitches than when singing melodies without any accompaniment.

C	Notes	C-E-G	Scale degrees	1-3-5
Cm	Notes	C-Eb-G	Scale degrees	1-b3-5
Cmaj7	Notes	C-E-G-B	Scale degrees	1-3-5-7
C7	Notes	C-E-G-Bb	Scale degrees	1-3-5-b7
Cm7	Notes	C-Eb-G-Bb	Scale degrees	1-b3-5-b7
Csus4	Notes	C-F-G	Scale degrees	1-4-5
Csus2	Notes	C-D-G	Scale degrees	1-2-5
C6	Notes	C-E-G	Scale degrees	1-3-5-6

Note: diminished chords are very unstable, and tend to not be the best chords to with which to build melodies, which is why they have been left out of the practice chart.

Change the starting pitch every time you practice this exercise, until you have built these chords on all of the 12 pitches of the octave, and practiced creating melodies over them.

Progressions

Chord progressions refer to any series of chords played one after the other. Chords can pass by quickly, with several chords occurring within one measure, or they can be less frequently, with a new chord appearing every two or four measures or so. Chord progressions are often repeated within a song section, but sometimes they will be Through Composed, and have no repetition at all.

When building melodies on chord progressions, the same guidelines above will be applicable. The only difference will be that when the chords change, the stable and unstable pitches within the scale will change to follow the chords. The root, 3rd, and 5th, of each chord will be the most stable, even if they occur on scale tendency tones that are normally unstable. A melody pitch that settles on a stable chord tone, that also happens to be an unstable tendency tone, will sound stable for the moment, but in the larger picture of the song, both the chord and the melody pitch will have a strong pull to other more stable pitches. This can get a little complex, but most of it is readily discernable through simply listening. It just takes an additional step to mentally connect the sounds with your intellectual understanding of the theory, but this will eventually become second nature.

So when either creating a chord progression for a melody, or building a melody on top of pre-existing chords, the melody notes will need to fit the chords. There will be a continual adjusting between the melodies and chords, in order to fit them together effectively, while maintaining both good melodies, and good chord progressions. More limitations will be present for your melodies when chords are added, which may present some challenges, but there will also be more structure, which often makes the writing process easier. The three considerations for single chords apply equally to chord progressions.

1) Don't sing the root of any chord too often. It is very stable, but it can sound muddy when the harmony, the melody, and potentially the bass-line, are all on the same pitch.
2) Only use dissonant pitches (half-step above a chord tone) as brief passing notes.
3) Non-chord tones can be used as passing tones to connect the more stable chord tones. They can also be held out longer to create a suspended effect. It is not usually so effective to extend such a suspended effect to every chord in the progression. It is often more practical to vary using suspended melody notes over some chords, and chord tones for others.

The only difference here with chord progressions, as opposed to single chords, will be that the stable and unstable pitches will be constantly shifting, which can create many

complexities, but it is also one of the unique features of our system of music that makes it so beautiful.

Exercise: Build chord progressions using any of the seven triads in the key of C (C-Dm-Em-F-G-Am-Bdim), and practice creating melodies over them. Refer to the 3 points listed above for creating good chord-melody relationships. Once you come up with a melody that you like, analyze its relationship to each of the chords it passes through. This may be a bit tedious at first, but as you get quicker at this type of analysis, you will find that it is the really key to developing sophisticated and expressive chord-melody relationships within your songs.

Try the same exercise while mixing in 7th chords from the same key (Cmaj7-Dm7-Em7-Fmaj7-G7-Am7-Bm7(b5)). Change the key every time you practice this exercise, until you have built chord progression on all of the 12 major keys, and practiced creating melodies over them and analyzing the chord-melody relationships.

Floating Over Chords

There are certain scales that seem to have a sound of their own that will work independent of the chord progressions that they are set against. They have the ability to float over top of chord progressions. When using such scales, it will no longer be necessary to match scale tones with chord tones; the scales and chord progressions will function independently of each other. The only alignment needed will be to place the root of the scale in the same key as that of the chords. This can be very useful when the chords are changing quickly, which would make it difficult to match every one of the scale and chord tones together. This technique is also commonly used over repeated one-chord vamps. Below is a list of scales that function in this manner.

Major Pentatonic Scale

This scale has a Folk or Country sound to it, although it has been applied to many other styles of music. It can be used over any major chord progression built from the same root, and is often used over major-chord vamps.

Major Blues Scale

This is a Major Pentatonic Scale with and added pitch, the minor 3rd, which gives it a Country-Blues, R&B, or Blues-Rock sound. It can be used over any major chord progression built from the same root, and is often used over major-chord vamps. It is also commonly used over Blues chord progressions, which utilize dominant 7th chords built from the 1st, 4th, and 5th degrees of the major scale (I7, IV7, V7).

Minor Pentatonic Scale

This scale has a Blues-Rock sound. It can be used over any minor chord progression built from the same root, and is often used over minor-chord vamps.

Blues Scale

This is a Minor Pentatonic with an added pitch, the diminished 5th. It has a Blues sound. An interesting feature of the Blues scale is that it has such a distinct sound that it can work over Major, Minor, or Blues chord progressions. Any clashing pitches between the scale and the chords will be heard as the marriage of the Blues with the style of music of the chord progression.

Exercise: Practice each of the scales listed above with their designated type of chord progressions. Notice that with these scales it is not as necessary to pay such close attention to precise chord-melody relationships.

Riffs and Basslines

Guitar riffs and repeated bass-lines usually function as I chords of the key. Most riffs or bass-lines will simply be outlining the scale. If you want to determine what key you are in, just write down all the pitches being used; fill in a blank or two if necessary, and you will have your scale. The same is normally true with Power-Chord guitar riffs. Sometimes it can be tricky analyzing those type of chord progressions, because there are no 3rds in the chords, making it unclear whether they are meant as major or minor chords. But when you line up all the pitches of the Power-Chord roots, you will usually amass most of the scale of the song.

When building a melody that is against a bass-line or guitar riff, there will be note-against-note relationships between each particular melody note, and the note that the instrument is playing at the time. The progression of these note against note relationships is known as counterpoint.

There are four possible shapes of motion within two-part counterpoint (the two parts in this instance being the instrumental line and the voice). They are Parallel, Similar, Oblique, and Contrary.

Parallel Motion

Both the melody and the riff or bass line move in the same direction and maintain the same approximate distance between each other. This often occurs when the voice is following a riff an interval such as a 3rd or 5th higher, rather than doubling the roots. Employing parallel motion, rather than doubling, is a common way to brighten up the vocal melody that follows an instrumental line, and prevent it from sounding too muddy.

Similar Motion

The melody and the riff or bass line move in similar motion, but not parallel. For instance, the instrumental line could be ascending, while the vocal melody also ascends, but on a steeper slope.

Oblique Motion

One line remains on a constant pitch, while the other ascends, descends, or moves in various directions.

Contrary Motion

The melody and the riff or bass line move in opposite directions. This method creates the most independence between the two lines.

Keep in mind that a vocal melody does not have to strictly follow any of these four types of motion. It can make departures both rhythmically and melodically from the riff or bass-line, which would create a much more melodic independence. This could be referred to as **Varied Motion.**

Exercise: Create a repeated riff or bassline on either the guitar or piano. Practice creating melodies using each of the four types of counterpoint motion listed above.

16. Advanced Melodic Techniques

Below are several commonly used techniques that incorporate pitches from outside of the key into songs.

Chromaticism

Within any Major or Minor scale there will be 7 pitches, which leaves 5 other pitches of the octave outside of the key. Landing on any of these pitches will usually instantly sound like wrong notes. However, if these pitches are used as passing tones that connect the pitches of the scale, they will usually sound fine. This is referred to as Chromaticism, the insertion of chromatic pitches into the key.

Modulation

This refers to a key change. In songwriting, probably the most widely used modulation technique, which almost sounds cliché now, is a whole-step modulation for the final chorus. This was often employed to give a boost to the climax of the song, by taking the entire song up a whole–step in pitch for the last chorus. But in addition to song endings, there are many other places to insert key changes within a song. Sometimes a key change will occur between a verse and chorus, sometimes just for the bridge, and occasionally for an extended outro. It will occur only rarely within a song section. Some key changes will sound more extreme than others. Below is a list of types of key changes, based on the distance in intervals from the original key, and the strength or weakness of each.

Modulation	**Effect**	**Different Pitches**	**Example**	
Perfect 5th	Subtle	1 pitch	C to G	closely related
Perfect 4th	Subtle	1 pitch	C to F	closely related
Major 2nd	Obvious	2 pitches	C to D	
Minor 7th	Obvious	2 pitches	C to Bb	
Major 6th	Dramatic	3 pitches	C to A	
Minor 3rd	Dramatic	3 pitches	C to Eb	
Major 3rd	Dramatic	4 pitches	C to E	
Minor 6th	Dramatic	4 pitches	C to Ab	
Major 7th	Extreme	5 pitches	C to B	unrelated
Minor 2nd	Extreme	5 pitches	C to Db	unrelated
Dim 5th	Extreme	6 pitches	C to Gb	unrelated

(In the above chart all modulations go up)

An easy way to remember this is to group inversions together which have the same number of different pitches for the key change. To invert an interval, first create it above the original pitch, then drop it down an octave, placing it below that pitch. When you invert an interval, the letter name will stay the same, but the distance between the pitches, now calculated from the lower pitch, will change. Additionally, perfect Intervals remain perfect, but inversions of major or minor intervals reverse in quality.

Inversions		
4th	to	5th
3rd	to	6th
2nd	to	7th

A Tritone can be called either a diminished 5th or an augmented 4th. In either case, it splits the octave exactly in half, and the inversion remains the same distance from the original pitch.

Below is a modified chart that eliminates the use of 6th and 7th intervals, by replacing them with their inversions. For example, rather than thinking about modulating up a minor 7th, one could consider this a modulation to be down a major 2nd. The simplified chart can be used for modulating either Up or Down, and is much easier to memorize.

Modulation	**Effect**	**Different Pitches**	**Example**
Perfect 4th or 5th	Subtle	1 pitch	C to G or F
Major 2nd	Obvious	2 pitches	C to D or Bb
Minor 3rd	Dramatic	3 pitches	C to Eb or A
Major 3rd	Dramatic	4 pitches	C to E or Ab
Minor 2nd	Extreme	5 pitches	C to Db or B
Dim 5th	Extreme	6 pitches	C to Gb

Now you can simply mentally summarize the above chart. When modulating either up or down, Perfect 4ths and 5ths are closely related keys that create very subtle differences. Major 2nds are more obvious, major and minor 3rds are dramatic, and minor 2nds and tritones are extreme key changes.

One good parameter that can be varied between the melody and the key to create a balancing effect during a key change is the melodic range. If the key modulates down, try bringing the melody up in pitch, and vice versa.

The circle of 5ths diagram can come in very handy when deciding on a key change. The closer a new key is to the original on the circle, the more closely related they will be, and the more notes they will have in common. When creating extreme key changes, you will usually have to use melody pitches that were not included in the original key, but when doing more subtle ones, if you avoid the different notes of the new key, it becomes

possible to stick with the original scale, minus a pitch or two, while coloring it with new chords.

Modal interchange (also called Mode Mixture)

Modal interchange is the insertion of chords into the key that are taken from a parallel mode. This often takes place between parallel major and minor modes (C major and C minor, for instance), but it can occur between any of the modes (C major and C phrygian, or lydian, for example). In popular songs there are often one or two chords taken from a parallel mode in order to add some spice to what can sometimes be a bland set of chords which are all derived from the same key. When there are chords mixed in from a parallel mode, the melody will often have to adjust a pitch or two for the duration of that chord, if it the melody traverses the section of the scale that has new pitches in it.

Secondary Dominants

Another common way to add spice to a chord progression is to use Secondary Dominant chords. These are major chords located a perfect 5^{th} away from any chord in the key. They have the effect of temporarily making the chord that the secondary dominant resolves to sound like the tonic. Secondary Dominants are like very brief key changes. These chords will usually have a pitch in them that is not indigenous to the key. When a Secondary Dominant chord is being used, the melody will have to adjust a pitch or two for the duration of that chord, if the melody traverses the section of the scale that has new pitches in it.

These advanced concepts are all related to harmony, and are covered in much more detail in the Harmony companion book to this series.

Time Changes

All of the melodic examples in this book have been written in 4/4-time, which is the most common meter used in popular music. However, writing song in different meters, such as 3/4, 6/8, 5/4, or 7/8, can greatly expand your songwriting possibilities. Also, there have been a handful of successfully written hit songs that utilize meter changes in various different sections of the same song. “Happiness is a Warm Gun,” by the Beatles, is a great example of multiple key changes within the same song.

CONCLUSION

Congratulations, you have made it all the way through the great labyrinth of Melody Madness. At this point, from my years of experience teaching songwriting, I anticipate one of two different reactions from readers. Some will be thrilled to death that they have finally discovered these amazing Insider Secrets to Songwriting. They typically will study, practice, and apply all of the techniques, in an eager attempt to gain mastery over the skills, and shortcut years of trial and error. Others, however, might feel that this type of structured methodology detracts from the passion and inspiration that they typically feel during the songwriting process. They might feel that it is a bit too analytical.

To both groups you must understand that there needs to be a continual balancing between creativity and editing. Although there is a learning curve that will require some analytical thinking while developing a working knowledge of these techniques, during the initial writing process it is best to let go of all analytical thinking, and just write whatever comes to mind. Allowing your stream of consciousness to flow, unhindered by any thoughts of editing, is essential for tapping into your inner creative powers. However, once you have written some music, it is best to consider it as a first draft, if you truly wish to become a great songwriter. The biggest difference between an amateur and a professional songwriter is that when a professional writer finishes a song, he or she considers it to be a rough draft, and will then spend many more hours editing the song in order to weave it into a final product. It is this second phase where the majority of the analytical thinking will be extremely helpful.

Many of the techniques in this book have been presented as methods for writing songs from scratch, and they can certainly be used in that manner to great success. But, they are more often used as editing techniques, after a good amount of music has already been written through a more intuitive process. However, once these techniques have been learned and practiced, they will begin to become second nature. You will often find yourself subconsciously incorporating them into your songs during the initial inspired writing process, which will greatly increase the range and flexibility of your writing ability from the start, and give your natural passion and inspiration a wider range of channels to flow through.

So take the time to practice and master all of these techniques. Let them become vehicles for your inner genius, and the passions of your soul. Then get out there and write some hit songs!

Kevin Thomas

ABOUT THE AUTHOR

Kevin Thomas has a Masters Degree in Music Composition from the University of Miami's Frost School of Music, where he graduated with a 4.0 GPA. He received his BA in Songwriting and Performance from Berklee College of Music, Boston, MA, where he graduated with honors: Cum Laude. He is also a graduate of Musicians Institute in Hollywood, CA. Kevin has been teaching music privately for 15 years. He has also been a faculty teacher at the San Diego School of Rock. He has written, arranged, performed, and recorded the music for 4 CDs, had national and international radio airplay, performed every style of music imaginable with music groups all over the U.S., and has composed orchestral compositions. He is an advisor to the San Diego Song Writers Guild, as well as a judge at their Songwriting Competitions. Kevin is currently teaching Songwriting Seminars, and recently began teaching private lessons nationally and internationally over the Internet. He is also currently writing the music for his next CD.

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