

# **Part I**

## **Music Theory**

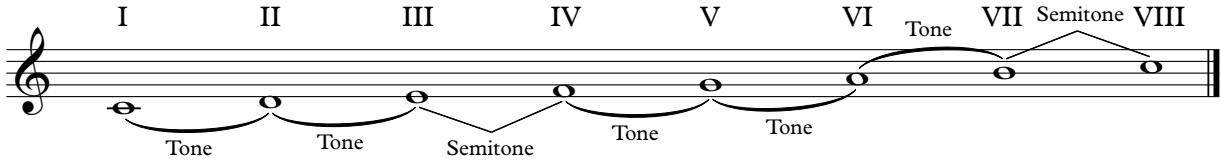


## 0.1 Intervals and Scales

We begin with the treatment of intervals, as done in Walter Piston, *Harmony*. Check the tome for a deeper treatment. We also assume the notion of semitone (and tone) as a starting point, also working in the twelve-tone equal temperament system.

The basic unity of harmony is the *interval*, which describes the distance between two tones (notes). When the tones are sounded simultaneously the distance is a *harmonic* interval; if the tones are heard consecutively, the distance is a *melodic* interval.

Tones that form an interval are drawn from *scales*. We present here the major scale, other scales will be presented later throughout the notes. As an example consider the C-major scale.



Above each note, there is a roman numeral which numerates each *degree* of the scale, another notation which comes handy when the keynote of the scale is not important. All major scales, have the same distribution of whole tones and semitones, regardless of the keynote. Below presented all possible major scale key signatures, this arrangement is called the *circle of fifths*, since each keynote is the fifth note of the scale to the left of it.

Intervals are named with a number and quality, for example in the Major Third interval, the former refers to the quality, and the latter to its number. The number is found by counting the number of lines and spaces enclosed between the notes of the interval. The quality of the interval is found by referring to the major scale starting on the lower note. If the note coincides with a note of the scale the interval is *major*, except in case of octaves, fifths, fourth and unisons, for which the term *perfect* is used. If the note does not coincide with a note of the scale, the following guidelines apply:

- i) A *minor* interval is obtained by lowering a major interval a half step (a semitone).
- ii) An *augmented* interval is obtained by augmenting a major or perfect interval a half step.
- iii) An *diminished* interval is obtained by augmenting a minor or perfect interval a half step.

It is also useful to know the specific distance (in terms of tones or semitones) of some (if not all!) intervals.

Interval	Distance
Major 2 <sup>nd</sup>	1 T
Minor 3 <sup>rd</sup>	$1 + \frac{1}{2}$ T
Major 3 <sup>rd</sup>	2 T
Perfect 4 <sup>th</sup>	$2 + \frac{1}{2}$ T
Tritone	3 T
Perfect 5 <sup>th</sup>	$3 + \frac{1}{2}$ T
Perfect 8 <sup>th</sup>	6 T

The special name *tritone* is given to the Augmented 4<sup>th</sup> (or Diminished 5<sup>th</sup>) interval, a special interval which will be covered in depth in future sections.

*Compound* intervals are those greater than an octave. Their naming rules are the same as for “normal” intervals before mentioned.

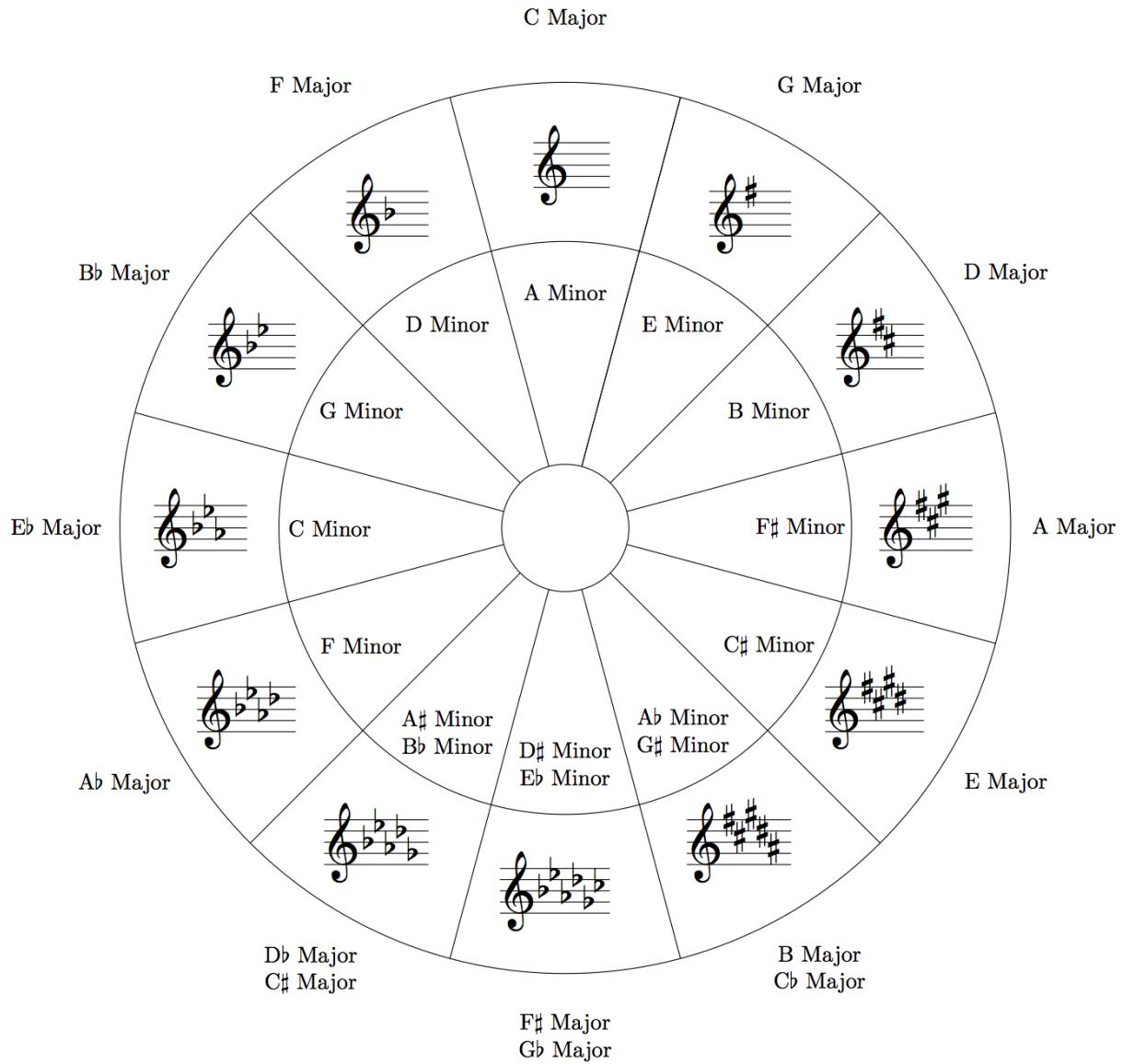


Figure 1: Circle of Fifths.

## 0.2 Scales on Dominant Chords

We will treat here three kinds of dominant seventh chords: dominant chords that resolve on a major chord, dominants resolving on a minor chord and substitute dominants.

1. A

# **Part II**

## **Guitar Theory**



## 0.3 Chord Melody

*Chord Melody* is playing chords and melody at the same time. It is customary to play the melody on the 1<sup>st</sup> and 2<sup>nd</sup> strings. Thus it is useful for playing chord melody studying which notes play on the voicing string on most used chords.

For each of the notes of the chord (root, third, fifth and seventh) we give different chord forms that have that note on the brightest string. All forms are given for a G<sup>maj7</sup>, other chords, flavors and alterations follow straightforward from these.

- With the melody note on the 1<sup>st</sup> string:

**Root:** - A {6432} form, moving the bass to the first string; which is equivalent to the third inversion of the D form (strings {4321}).



**Third:** - D form; which is equivalent to 1<sup>st</sup> inversion of the {6432} form (with the bass moved to the first string).



**Fifth:** - A form, (without root) and playing the first string.



- 1<sup>st</sup> inversion of the D form; equivalent to 2<sup>nd</sup> inversion of {6432} form.



- {5321} form, which is just an A form lowering the fourth string to the first one.



**Seventh:** - 2<sup>nd</sup> inversion of the D form, or 3<sup>rd</sup> inversion of {6432}.



- {6321} form, which is just the {6432} form lowering the fourth string to the first one.



- {4321} form.



- With the melody note on the 2<sup>nd</sup> string:

**Root:** - 1<sup>st</sup> inversion of the {6432} form, moving the 7<sup>th</sup> to root note.



- 2<sup>nd</sup> inversion of the {6432} form; or the C form.



**Third:** - A form.



**Fifth:** - {6432} form.



**Seventh:** - 1<sup>st</sup> inversion {6432} form.



Many of these chords are obtained by taking a chord with the bass on the bass strings (6<sup>th</sup> or 5<sup>th</sup>) and moving them to the first string.