

# Jermaine Griggs & Chuku Onyemachi

*QUICK MINI GUIDE ON*

**Basic**

**Harmonization**

*HARMONIZING ALL SCALE TONES IN THE KEY  
OF C MAJOR USING **THREE** CHORDS*

**PRELIMINARY**  
**CHAPTER:**  
Harmonization  
Defined

# INTRODUCTION

In music, there are two relationships that exist between notes – *melody* and *harmony*.

**Melody** is the relationship between notes that are heard separately while **harmony** is the relationship between notes that are heard simultaneously.

It's common to start one's musical journey with **melody**. Learning about **Notes** (their names, sharps and flats, etc.), then proceeding to **Scales** (fingering, melody determination, etc). After all that, when you're probably able to play a few songs with one finger (melody), there's an innate desire to **harmonize**.

## *Definition*

**Harmonization** is simply the sounding of notes simultaneously in relationship to a given melody.

This is serious business because when notes are sounded in such a way that *harmony* is created, the outcome is not usually pleasant and agreeable. If you don't know the basics to harmonization, you may end up with an inharmonious and unpleasant outcome.

# **CHAPTER 1**

## **Introduction to Harmonization**

*Acquiring this guide shows how determined you are to learn how to transform one-finger melodies into full-sounding chords.*

*In this chapter, we're starting at the very beginning and laying a foundation for a thorough understanding of harmony.*

*Every page will take you further into this harmonization adventure.*

*Welcome aboard!*

# INTRODUCTION

The goal of this harmonization course is to equip you with what it take to harmonize the scale.

We are confident that you'll be able to harmonize any melody because for the most part, melodies are derived from the scale. In this guide, we'll be focusing on the ***major scale***.

Scales are melodic figures. This is because the mode of relationship between the notes of a scale does not make provision for more than one note to be played at once.



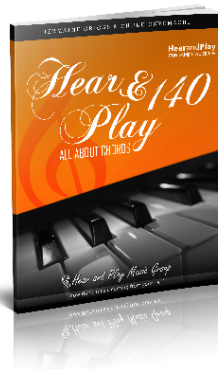
In our fundamental series course, **HearandPlay 110 – “All About Notes,”** the relationship between notes in this manner is introduced as *melody*. Playing the notes below one after the other will sound “melodic.”



In this course, we are approaching scales from a “harmonic” perspective. We want each tone of the scale to be sounded in relationship with other notes *in accompaniment*.

## *Chords and Melody Notes*

Chords are harmonic structures formed by a total of three or more notes that are related by an underlying scale and class of harmony. That’s how we defined it in our award-winning music fundamental series course -**HearandPlay 140 – “All About Chords.”**



Below are chords of various classes:

### C Major triad



### C Minor seventh



### C Major ninth



Irrespective of the quality or the number of notes in a chord, the highest-sounding note is called the **melody note**. In all three cases above, G, B $\flat$  and D are the melody notes.

Let's switch perspective a bit. Chords, especially *triads*, can be formed when a choir is singing (which are obviously soprano, alto and tenor).

Have you ever wondered why soprano singers (who usually sing the melody of the song) sing the **highest** part? The highest note (which is the melody note) has the highest frequency and that makes it easy for the ear to distinguish it from other pitches.

We covered frequencies and pitches in **HearandPlay 110 – “All About Notes.”**



If the root position triad (C-E-G) below is sounded,



**G is the highest sounding note.** Therefore, G is the melody note of the root position of the C Major Triad.

If we use the first inversion of C major, which is E-G-C,



**C is the highest sounding note**, aka - "the melody note." Using various inversions of a chord give you the opportunity to utilize different melody notes in the same chord.

C major chord can be played in three possible ways:

Root position note	- C-E- <b>G</b>	'G' as melody
First inversion note	- E-G- <b>C</b>	'C' as melody
Second inversion note	- G-C- <b>E</b>	'E' as melody

Considering the melody notes that each of the ways of playing C Major affords, we can carefully note that...

C can be harmonized using E-G-**C**



E can be harmonized using G-C-**E**



G can be harmonized using C-E-**G**



Simply put, the number of tones a chord can harmonize is equal to the number of tones in the chord.

C major has three tones – C, E and G. Therefore C major can harmonize three scale tones – C, E and G.

# CHAPTER 2

## Harmonic Analysis I



# INTRODUCTION

Before you get into harmonization, it is important for us to show you the rationale behind the basic harmonization covered in this course. This is because we believe that you need to know the *why* and not just the *how*.

## *The Power of Three*

Our harmonic source in this course are **primary triads**.

Primary triads are triads of the first, fourth and fifth degrees of the scale.

Triads are chords. Use of the term “triad” makes it obvious to remember that these chords have three notes *per octave*.

This quick guide features three-note chords (triads). Therefore, we’ll use the terms “triad” and “chord” interchangeably.

In our “**Quick Guide on Voice Leading Techniques for Triads**,” we taught you how to connect these primary chords (three of them) in any

key effortlessly. In this course, we're taking you on a harmonic adventure that will deepen your understanding of these chords by exposing their harmonic use in **Basic Harmonization**.

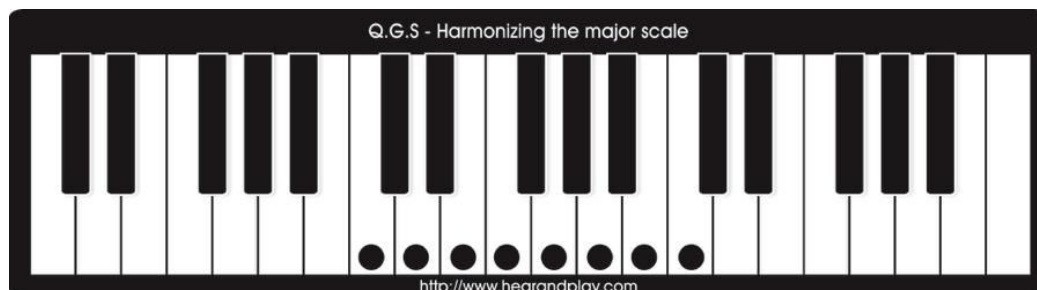
### **Three Primary Triads – Chords 1, 4 & 5**

Remember what we covered in chapter 1:

*The number of tones a chord can harmonize is equal to the number of tones in the chord. C major has three tones – C, E and G. Therefore C major can harmonize three scale tones – C, E and G.*

In the key of C, the C major triad aka - "tonic triad" (which is one of the three primary chords) has what it takes to harmonize C, E and G (which are the first, third, and fifth tones of the C major scale [the key we're in]).

If the tonic triad can harmonize three out of seven notes, then that's pretty much 43% of the major scale harmonized.



The major scale has seven unique notes (C, D, E, F, G, A, B). 50% of 7 is 3.5 right? This means that the

harmonizing potential of the *tonic triad* (the *root triad* or the same key that you're in... in this case, C major) is a little bit below 50% and that for sure means that (with this triad covered), you have *half of the job done*.

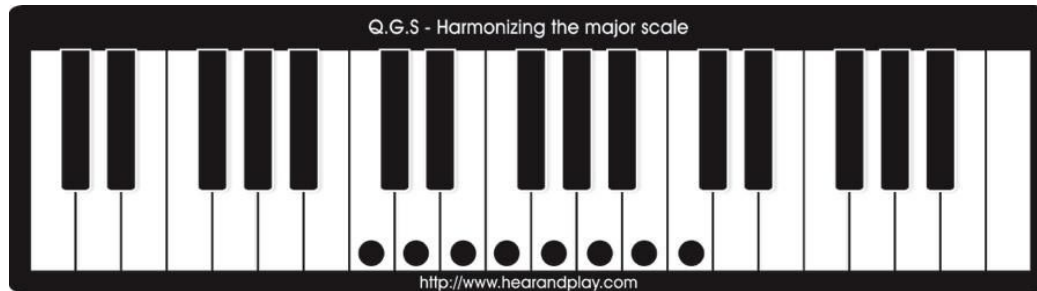
## Harmonic Analysis

Below are the three primary chords of C major.



They account for 100% of the harmonic possibilities

in basic harmonization. Considering that three primary chords are 100% of **harmonic possibilities**, then the power of one triad is 33%. Let's go further into this analysis:



The C major scale above represents all the possible notes that we can harmonize (this doesn't mean that other notes outside the scale cannot be harmonized – No!).

Remember that our focus in this course is the major scale, which has seven notes. If these seven scale tones are 100% of **melodic possibilities**, then the harmonization of three scale tones using one primary triad (by virtue of the three possible ways it can be played [root position + two inversions]), has done 3/7 of 100%, which is 43%.

With that, you can see that 33% of the harmonic possibilities (one of the THREE primary chords) in the key of C Major (which are C major, F major and G major) can harmonize 43% of the melodic possibilities. More on this later.

C Major harmonizes 43% of the major scale (C, E and G [stable tones) and we're left with 57% (D, F, A and

B [active tones]). We'll look at stable and active tones shortly.

## *Harmonic Potentials of Primary Triads*

C major harmonizes 43% of the major scale and so does F major and G major.

C Major harmonizes 43% of the major scale (C, E and G)

F Major harmonizes 43% of the major scale (F, A and C)

G Major harmonizes 43% of the major scale (G, B and D)

If we invest 3 primary chords, they have the potential to yield 129% of harmonization benefits and that's 29% interest. Putting our analysis together, it will sound like this:

*Within the premises of primary triads usage, 100% of the harmonic possibilities of any key, if put to work, will yield 129% of melodic possibilities.*

This means that harmonization using (just three) primary triads exceeds our melodic possibilities (the major scale) by 29%. We know you are pleased to

hear that and so are we.

What this means is that in some instances, you will have choices. For example, most of the time, in C major, the melody note "C" will be harmonized by a C major chord (as you've learned).

But in some instances, this is not the case. In "Yes Jesus Loves Me" in C major, on the "me," the melody note is C. However, the chord that harmonizes it is F major (with C on top).

You'll learn in these instances, how to know which primary chord to use as your harmonizing tool when there are more than one option.

We really have no intention of boring you any longer with lots of calculations.

So let's go into depth about the rationale behind most of the things covered so many years ago in our **"Gospel Keys 101 - Hymns and Congregational Songs" course.**

If you don't have this course, don't worry. Visit <http://www.gospelkeys101.com> to invest in this comprehensive DVD course on basic harmonization where it takes you by the hand and shows you these concepts in video format.

# SECTION 2

# **CHAPTER 3**

## Harmonic Analysis II

# INTRODUCTION

In the previous chapter, we were concerned with the tonic triad (C major) and we cited examples around the tonic triad.

In this chapter, we'll be looking at chords 4 and 5, which are called the "sub-dominant" and "dominant" triads, respectively, before putting everything together for you.

## *Sub-dominant and Dominant Triads*

Let's look at chords 4 and 5. In the key of C major, that's F and G major.

F major triad can be played in three possible ways:

F-A-**C** - 'C' as melody note



A-C-**F** - 'F' as melody note



C-F-**A** - 'A' as melody note



Considering the melody notes that each of the ways of playing F Major affords, it's crystal clear that F, A and C can be harmonized using the sub-dominant triad (F major).

C can be harmonized using F-A-**C**

F can be harmonized using A-C-**F**

A can be harmonized using C-F-**A**

G major triad can be played in three possible ways:

G-B-**D**      'D' as melody note

B-D-**G**      'G' as melody note

D-G-**B**      'B' as melody note

Considering the melody notes that each of the ways of playing G Major affords, we can deduce that...

D can be harmonized using G-B-**D**



G can be harmonized using B-D-**G**



B can be harmonized using D-G-**B**



Now, let's combine the melodic possibilities of all the harmonic possibilities (which is another way of saying, "let's combine the possible number of melody notes that can be harmonized using primary triads.")

### **C Major (43%)**

- C can be harmonized using E-G-**C**
- E can be harmonized using G-C-**E**
- G can be harmonized using C-E-**G**

### **F Major (43%)**

- C can be harmonized using F-A-**C**
- F can be harmonized using A-C-**F**
- A can be harmonized using C-F-**A**

### **G Major (43%)**

- D can be harmonized using G-B-**D**
- G can be harmonized using B-D-**G**
- B can be harmonized using D-G-**B**

If we re-arrange the melody notes alphabetically, we'll have:

- C - E-G-**C**
- C - F-A-**C**
- D - G-B-**D**
- E - G-C-**E**
- F - A-C-**F**
- G - C-E-**G**
- G - B-D-**G**
- A - C-F-**A**
- B - D-G-**B**

If you look at the possibilities above, you'll see that there are two ways to harmonize the C melody note:

- C - E-G-**C** - Using Chord I
- C - F-A-**C** - Using Chord IV

There are also two ways to harmonize the G melody note:

- G - C-E-**G** - Using Chord I
- G - B-D-**G** - Using Chord V

When I established that 100% of primary chords will give us 129% of melodic options, this is what I meant!

We can only harmonize 100% of scale-tones using 100% of chords. Therefore, we are sacrificing the extra 29% (for now) because we need 100%. Question is, what do we sacrifice, and why?

The chord tones of the tonic (first tone) triad are called *stable tones*. This is because they give us a sense of gravity, attraction or pull towards the tonic (home).

Therefore, in basic harmonization, it's harmonically **satisfactory** to harmonize the chord tones of the tonic triad (C, E and G [stable tones]) using the tonic triad.

The key of C major has C-E-G as its tonic triad. Therefore, it is harmonically satisfactory to harmonize the single melody notes "C," "E," and "G," which are the first, third and fifth scale degrees, using the tonic triad.

**C D E F G** A B C

Therefore, while the following harmonizing chords have their place, in basic harmonization, the I chord will take precedence over the IV and V chords.

The IV and V chords can be reserved to fit into certain harmonic environments they can thrive in.

Below is a table of melody note distribution across the three primary triads

<b>Triad</b>	<b>Melody Notes</b>	<b>Percentage</b>
Tonic (Chord I)	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup>	42%
Sub-dominant (Chord IV)	4 <sup>th</sup> & 6 <sup>th</sup>	29%
Dominant (Chord V)	2 <sup>nd</sup> & 7 <sup>th</sup>	29%

Chords IV and V have a melody note distribution of 29% each while Chord I takes care of 42% of melody notes. This is because Chord 1 is the **tonic** triad and its chord tones are stable tones.

Let's put it to work by harmonizing the C Major Scale using primary triads as follows:

E-G- <b>C</b>	<b>first inversion of Chord I</b>
G-B- <b>D</b>	root position of Chord V
G-C- <b>E</b>	<b>second inversion of Chord I</b>
A-C- <b>F</b>	first inversion of Chord IV
C-E- <b>G</b>	<b>root position of Chord I</b>
C-F- <b>A</b>	second inversion of Chord IV
D-G- <b>B</b>	second inversion of Chord V
E-G- <b>C</b>	<b>first inversion of Chord I</b>

\*This is a wonderful exercise to practice daily. Simply play the scale, C D E F G A B C, first with single notes. Then, proceed to harmonize the scale using the chords above. Use a metronome to keep rhythm.

## *Stable Tones vs Active Tones*

Basic harmonization is incomplete without an understanding of the relationship between stable and active tones. In harmonization, it is important to know that within the major scale, all notes are not the same.

There are stable tones and there are active tones. **Stable tones (ST)** are the chord tones of the tonic

triad. Considering that the tonic triad is built off the first, third, and fifth degrees of the major scale, these tones are stable.

**Active tones (ac/Ac)** are other tones of the scale – second, fourth, sixth and seventh.

<b>1st</b>	2nd	<b>3rd</b>	4th	<b>5th</b>	6th	7th
<b>ST</b>	ac	<b>ST</b>	Ac	<b>ST</b>	ac	ac

There are three stable tones and four active tones.

### Active Tones

Traditionally, besides the seventh degree (leading note) which resolves upwards, ALL active tones resolve downwards.

Resolution of **2 to 1**

G-B-**D** resolves downwards to E-G-**C**





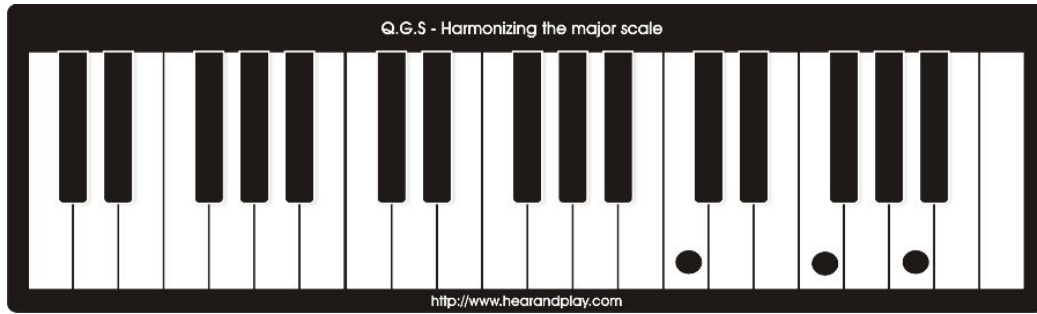
Resolution of **4 to 3**

A-C-**F** resolves downwards to G-C-**E**



Resolution of **6 to 5**

C-F-**A** resolves downwards to C-E-**G**



Resolution of **7 to 1**

D-G-**B** resolves upwards to E-G-**C**



## Stable Tones

The chord tones of the tonic triad (first, third, and fifth) are all stable, but even they are not created equally.

**The First.** The most stable is the first tone and it's also important to note that two active tones resolve to it. As you've learned above, the seventh tone resolves upwards to the first and the second tone resolves downwards to it.

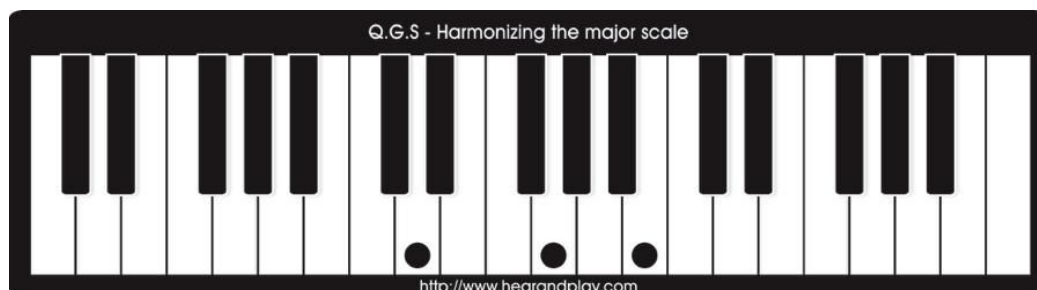
D-G-**B** resolves upwards to E-G-**C**

G-B-**D** resolves downwards to E-G-**C**

In both cases, the underlying harmony is derived from chord 5. As a matter of principle, the strongest pull in harmony is between chords 5 and 1 (from dominant to tonic). So the primary function of chord 5 in this basic harmonization course is to connect active tones (seventh and second) to the first tone.

Using a 5-1 chord progression, we can harmonize the seventh, second, and first tones of the scale:

7 moves up to 1





2 moves down to 1



**The Third and Fifth.** The third and fifth may not be as stable as the first tone; however, they are universally considered stable. Two active tones resolve to the third and fifth, respectively. The fourth tone resolves downward to the third while the sixth resolves downward to the fifth tone.

A-C-**F** resolves downwards to G-C-**E**

C-F-**A** resolves downwards to C-E-**G**

In both cases, the underlying harmony is derived from chord 4. The primary function of chord 4 in this basic harmonization course is to connect active tones (fourth and sixth) to the third and fifth tones, respectively.

Using a 4-1 chord progression, we can harmonize the sixth, fifth, fourth and third tones of the scale:

6 moves down to 5



4 moves down to 3



In other contexts, this is known as the "amen" cadence.

# CHAPTER 4

## Basic Harmonization

# INTRODUCTION

It's harmonization time and we are so excited to show you how to harmonize the major scale in ALL keys.

Not just that, we're also preparing you for the adventure by outlining the primary triads of every key and their respective inversions.

Enjoy!

# *C Major*

**C D E F G A B**

Chord I	-	C-E-G
Chord IV	-	F-A-C
Chord V	-	G-B-D

E-G- <b>C</b>	first inversion of Chord I
G-B- <b>D</b>	root position of Chord V
G-C- <b>E</b>	second inversion of Chord I
A-C- <b>F</b>	first inversion of Chord IV
C-E- <b>G</b>	root position of Chord I
C-F- <b>A</b>	second inversion of Chord IV
D-G- <b>B</b>	second inversion of Chord V
E-G- <b>C</b>	first inversion of Chord I

## 1st Tone



## 2nd Tone



## 3rd Tone



## 4th Tone



## 5th Tone



6<sup>th</sup> Tone



7<sup>th</sup> Tone



8<sup>th</sup> Tone



**For all 12 keys and  
50 exercises, visit**

<http://www.hearandplay.com/harmony12>