

**GUITAR  
SECRETS**

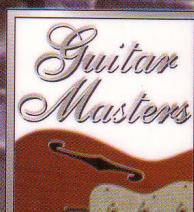


# SYMMETRICAL SCALES

Diminished & Whole-Tone  
**REVEALED**

by Don Mock

- New sounds! New ideas!
- Tons of diminished and whole-tone lines, licks and music examples
- Learn soloing and scale substitution from a player's perspective
- CD included
- Standard notation and tab



# Guitar Secrets - Symmetrical Scales Revealed

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## **Foreword**

Welcome to *Symmetrical Scales Revealed*. Learning how to play and use scales has always been a large part of every guitar player's practice schedule. Players have spent countless hours practicing scales up and down all over the guitar, sometimes with great success and sometimes with frustration as the end result.

Those of you who know me from my books and videos or years at the Guitar Institute of Technology (GIT) know I've been involved in guitar education for a long time. I've seen hundreds of students struggle with the same problems that I faced when going through the process of learning how to play and use scales. After many years of experience, both playing and teaching, I've become a big believer in cutting through the nonsense and getting to the point of it all, which is playing music.

The presentation and ideas in this book are definitely from a player's perspective. We're not going to get too in-depth into the history and classical theory of the diminished and whole-tone scales. We'll focus more on their uses in contemporary styles like blues, rock, fusion, and jazz. Don't get me wrong; there will be no shortcuts here when it comes to modern music theory. As far as I'm concerned, all guitar players must have a good working knowledge of harmony and theory and the ability to read music, even if it's only simple chord charts.

## **Three Steps to Success**

Learning to improvise can be thought of as a three-step process. The first step is typically the learning of scales. Using either the key center approach or the modal approach, students should learn at least a few useful fingerings of the major scale and be able to play them in all keys. Also, in this first step, players need to learn about harmony and theory to help understand which scale fits over which chord. Armed with some theory knowledge, students can immediately begin playing over even difficult chord changes by simply switching to the correct scale or key center for the given chord.

Most players after a period of time will begin to find this first step limiting. They may say that they can't seem to make their solos sound like the chords, that they sound too scalar. Moving on to step two, we introduce arpeggios as a tool to create chord sounds. Mixing arpeggios with our scales starts making our solos more harmonically intelligent.

Step three is the final frontier of improvising, as we now start really learning music. So far we've been using scales and arpeggios but may not been able to make our solos sound melodic. Now it's time to learn melodies. Most of us need to learn a repertoire of melodic lines to use when we improvise. Almost every one of our favorite players has, at one time or another, learned lines by copying recordings or transcriptions. I've met many students who tell me they don't want to sound like anyone else and feel they shouldn't copy other players. They soon realize that the road to originality goes through the land of copying licks, phrasing, and concepts used by favorite players. Eventually, these influences merge together into your own original style.

One last thing: A common misconception about improvising is the phrase "playing what you hear." Many players say they do this, leading students to think that they simply make up music on the spot. What they are really saying is that they are playing what they know.

Improvising is the spontaneous performance of ideas that come to you in the midst of soloing. You may not know ahead of time what you are going to play, but armed with scales, arpeggios, melodic ideas, and theoretical concepts, you can play a creative and spontaneous improvised solo.

## Introduction

This book deals with the two most used symmetrical scales—the diminished and whole-tone. Symmetrical scales are best defined as having repetitive or equal-note spacing that repeats throughout the octave. For example, the whole-tone scale is exactly what the name indicates; it's a scale built entirely of whole tones. The symmetry of a diminished scale is a pattern of alternating whole steps and half steps, four times per octave.

One great thing about symmetrical scales is that they are very guitar-friendly and easy to memorize. The fingerboard is a visual, graphic instrument similar to a slide-rule. In most cases, you can get by with just one fingering for each of these scales and then repeat the same fingering every two frets (whole-tone) or three frets (diminished) up or down the fingerboard. Guitar players can easily discover hundreds of unique melodic and harmonic ideas that are not as obvious on other instruments like keyboards, reeds, or brass.

Both of these scales are very useful and creative tools used by improvisers. Their simplicity can be deceptive; it's almost surprising how these simple scales can provide such a complex sound. In traditional jazz, they provide a contrasting flavor against functional dominant chords. Modern players exploit these scales to add an outside sound to contemporary jazz, rock, and even blues.

In *Symmetrical Scales Revealed* you'll learn the most useful scale patterns and explore sequences and arpeggios within the scales. Next we'll learn the secrets of how to best use the scales, followed by several of my favorite melodic lines.

We'll begin each of the two sections by first learning some good fingerings for each scale. If you already know a fingering or two, stick with them or feel free to modify any of the fingerings here to suit your technique and style. The ultimate goal is to be able to play the particular scale anywhere on the guitar in any key.

One more thing about the fingerings: You are limited only by the lowest and highest notes on the guitar. Think of scales as having no beginning and no end. Don't be too concerned with the bottom or top notes of each individual pattern. You'll find that each has a different starting and ending note because of the natural range of the strings.

Scales are simply a row of notes, and you should learn to control the scale by being able to start and end on any note. Eventually, individual scale fingerings will begin to blend together into larger patterns until finally the whole fingerboard is under your control!

## **How to Get the Most Out of This Book**

The best way to get the most out of this book is to scan through each chapter first. Get a feel about where and what the various topics are and if they contain information you already know. You should read every page carefully, but it's okay to start with any section in the book that interests you.

# **Unit 1: Modes of the Diminished and Whole-Tone Scales**

Using the term *mode* when discussing symmetrical scales may seem strange, but modes aren't just found in major scales. All scales, including melodic and harmonic minor and even the pentatonic, have modes contained within them. Of our two symmetrical scales, the diminished has two modes while the whole-tone has just one.

The first mode of the diminished scale begins, when ascending, with a whole step from the first note or root. Instead of giving it some weird Greek name, we'll just call the first mode the *diminished scale*.

## **③ Example 1A: C Diminished Scale (1st Mode)**

A musical staff in G clef. The notes are: C, B-flat, A, G, F-sharp, E-sharp, D, C. Below the staff, the intervals are labeled: 1 step, 1/2 step, 1 step, 1/2 step, 1 step, 1/2 step, 1 step, 1/2 step.

The other mode found in the diminished scale begins with a half step. A good name for this one is the *dominant diminished scale*.

## **Example 1B: D Dominant Diminished Scale (2nd Mode)**

A musical staff in G clef. The notes are: B-flat, A, G, F-sharp, E-sharp, D, C, B-flat. Below the staff, the intervals are labeled: 1/2 step, 1 step, 1/2 step, 1 step, 1/2 step, 1 step, 1/2 step, 1 step.

Don't let this mode business with the diminished scale confuse you. Both modes are still diminished scales and are played exactly the same. Only the starting notes are different. You can play both diminished modes with one fingering pattern, just start with either the whole-step or half-step scale. You don't want to confuse your fingers into thinking there are two different patterns.

The reason we are even considering both modes is to make the scale's application easier. In improvising, you will not only play the diminished scale over diminished chords, but more often than not you will also play it over dominant 7th chords. Thinking in terms of two modes makes locating or superimposing the scale over specific chords easier.

## **Example 1C: C Whole-Tone Scale Mode**

When it comes to the whole-tone scale, there is only one possible mode. No matter which note you start on in a whole-tone scale, the resulting scale will always be the same.

A musical staff in G clef. The notes are: C, D, E, F-sharp, G, A. Below the staff, the intervals are labeled: 1 step, 1 step, 1 step, 1 step, 1 step, 1 step.

## Unit 2: Static and Functioning Dominant 7ths

There are two primary types of dominant chords that are mostly defined by their context, or *function*, in the progression—static and functioning dominant 7th chords.

Traditionally, dominant chords function as transition chords that lead to other chords by creating tension. The natural response to this tension, called dissonance, is the desire to hear that tension resolved by movement to another chord. I'll refer to these dominant chords as the *functioning dominants*.

This tension limits the amount of time these chords can be played before moving to the next chord. Most of the time they will resolve to a home chord up a 4th. To get a feel of these functioning dominants, play C7 to Fmaj7 or E7 to Am7 and listen to the dissonance of the dominant 7th chord being resolved.

*Static (stationary) dominants* are not as dissonant and are not used to lead to other chords. Static dominants are usually vamps, or extended grooves, where the tune may stay on the chord for a long period of time.

All dominant chords can be used as *functioning dominants*. They can be extended (C7, C9, C11, C13, etc.) and altered (C7(\$5), C9(b5), C13(b9), etc.). *Static dominant* chords can always be extended but not usually altered because the alterations often add too much dissonance. The only exceptions are the \$9 and the b5.

Symmetrical scales are traditionally considered altered sounds used over functioning dominant chords, providing their own unique kind of tension.

### Example 2A

Notice how the *dominant diminished scale* contains every altered tone but the \$5 (or b13).

<b>Dominant 7th Chord:</b>	root	3rd	5th	b7th				
<b>Dominant Diminished Scale*</b> :	root	b9	\$9	3rd	b5	5th	6th	b7th

\* *Diminished scale starting with a half step.*

### Example 2B

The *whole-tone scale* contains the \$5 that was missing from the *dominant diminished scale*. The b5 is the only alteration that's common to both scales.

<b>Dominant 7th Chord:</b>	root	3rd	5th	b7th		
<b>Whole-Tone Scale:</b>	root	2nd	3rd	b5	\$5	b7th

## **Unit 3: Fingerings of the Diminished Scale**

Probably the most popular pattern for a diminished scale is shown below. It's a vertical pattern using three notes per string that covers a little more than two octaves. On any string there's always a whole step followed by a half step or vice versa spanning three frets.

At this point, don't be concerned with the starting note. We will get into the "modes" of the scale later. For now, just think of this first pattern as C diminished starting on low C and ending on high D.

### **④ Example 3A: Diminished Scale**

C Diminished Scale

The musical notation shows a staff with sixteenth-note patterns for the C diminished scale. Below it, a guitar neck diagram shows fingerings for the scale across the strings (T, A, B) and frets (8, 9, 10, 11). The guitar neck diagram illustrates the vertical fingering pattern, with dots indicating where to press each string. The strings are labeled T (Top), A, and B (Bottom).

### **Example 3B: Dominant Diminished Scale**

The next pattern is exactly the same as the first but has two added notes: a low B and a high Eb. It adds a bit more range to the scale, but more important, it includes the root of a dominant 7th chord. This is why this pattern, which starts with a half step rather than a whole step, is sometimes called the dominant diminished scale.

Compare the fingerings for the ascending and descending versions of the dominant diminished. To add the low B and the high Eb you have to play four notes on the 1st and 6th strings. Playing four notes on one string can present some challenges for guitarists. When ascending, try using your 4th finger to shift from the 3rd to 4th note (1-2-4-4). When descending, use your 1st finger to shift between the last two notes (4-3-1-1). The logic behind this is that shifting with the last note on the string will have more strength and momentum. This rule is not set in stone; if you feel you can play it fingering another way, go for it. And yes, some guitarists do play the four notes with four separate fingers.

Do some experimenting and arrive at the best fingering for you. Shifting is a very important guitar technique not only for diminished scales but also for other scales and shapes.

B Dominant Diminished Scale

T  
A  
B

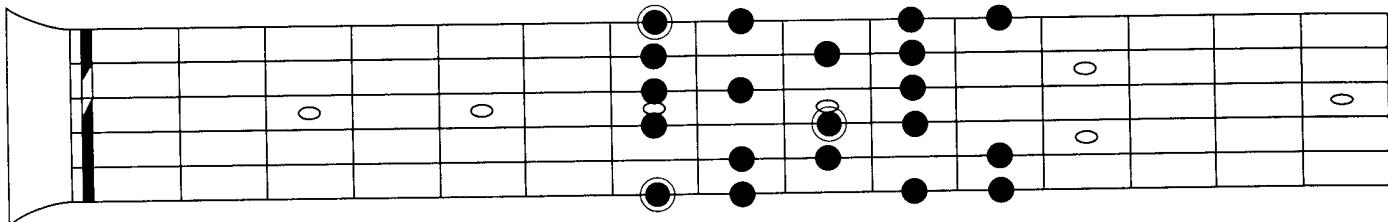
1 2 4 4 1 2 4 1 3 4 1 2 4 1 3 4 1 2 4 4

7 8 10 11 8 9 11 7 9 10 7 8 10 7 9 10 7 8 10 11

T  
A  
B

4 3 1 1 4 3 1 4 2 1 4 3 1 4 2 1 4 3 1 1

11 10 8 7 10 9 7 10 8 7 10 9 7 11 9 8 11 10 8 7



### **Example 3C: Horizontal Dominant Diminished Scale Pattern**

While we are on the subject of four-note-per-string fingerings, the following horizontal diminished pattern uses this fingering on every string. Horizontal fingerings emphasize the symmetry of these scales. This popular pattern is useful for long melodic lines and changing positions. I finger it the same way as the last pattern: 1-2-4-4 when ascending and 4-3-1-1 when descending.

If the diminished scale is new to you, you might want to skip this pattern for now and concentrate on the first two fingerings.

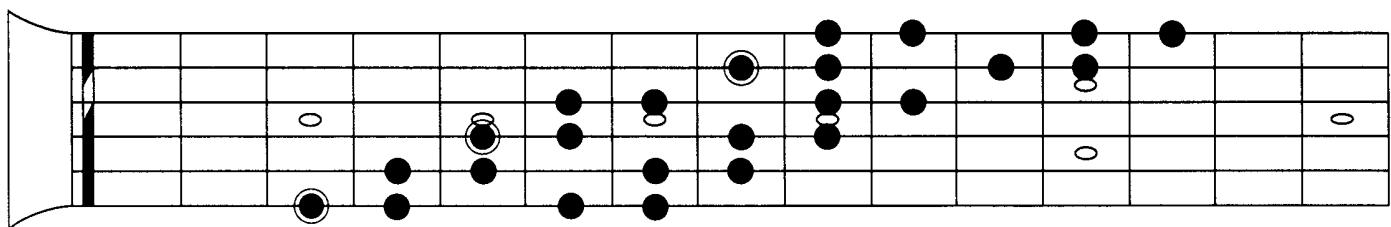
G Dominant Diminished Scale

1 2 4 - 4 etc.

T A B 3 4 6 7 4 5 7 8 5 6 8 9 6 7 9 10 8 9 11 12 9 10 12 13

4 3 1 1 etc.

T A B 13 12 10 9 12 11 9 8 10 9 7 6 9 8 6 5 8 7 5 4 7 6 4 3



## Unit 4: How to Learn and Practice the Diminished Scale

There are basically two important things to practice: technique and playing. Building up technique is something you can do anywhere, such as while watching TV or sitting in the park, while you play things over and over. Practicing playing is using the things you've worked out in a real musical playing situation. Playing along with music-minus-one tapes, your friends, or even a drum machine can simulate performance. This is the time to imagine you're on stage with no turning back. It's a great way to get to know what you can really do and where your weak areas are.

The best way to learn any scales or scale patterns is to relate them to a chord immediately. It's important to hear, right from the beginning, how a scale works musically.

### ⑤ C7 PRACTICE TRACK

While playing the C dominant diminished scale along with the **C7** groove practice track, listen to how it sounds and relates to the chord. The diminished scale is almost always played over a functioning dominant 7th chord, but for now practice the scale over a dominant 7th chord vamp.

Your first tendency might be to start on the lowest note and play up or start on the highest and play down. That's okay at first, but you should plan to break away from that habit as soon as possible by practicing the scales from different starting notes in the middle of the scale. The goal is to memorize the scales as a complete group of notes in which you can start and stop anywhere.

Technically, you should be looking for difficult fingerings or picking obstacles and place some extra emphasis on these areas. Musically, you should try to have some fun with these scales by adding rhythmic variations and accents.

## Unit 5: Diminished Scale Sequences

I'm not a big believer in exercises. I would rather show you some ideas that are not only good for building technique but are also melodic and interesting enough to use when performing. I have to admit, however, that I'm caught in the middle when it comes to scale sequences. Although they border on sounding like plain old exercises, scale sequences can be powerful melodic tools for improvising if used properly. Sequences are a process of playing the notes of a scale in a mathematical order. Typically played as descending or ascending lines, sequences can be made up of two or more notes. Sequences can also be a significant help in learning scale patterns and can offer some very challenging picking and fingering movements.

Due to their symmetrical patterns, diminished and whole-tone scales are naturals for applying sequences. The diminished scale offers more cool sounding sequences than any scale I can think of. Coming up are a few favorites. Check them all out on the CD before you learn any; then pick two or three that you like best to start. Get them down as well as you can and *use them*. Learn the others only when you feel you can add them to your playing without jeopardizing the ones you first learned. It's much better to have a few that you can use instead of several that you're struggling with and can't quite play.

Several of the sequence examples are shown with a suggested chord that the line fits over. However, one important thing about diminished melodies is that they will always work over several other chords too. Later, we will explore how to use the diminished scale in detail. But for now, know that if a sequence is shown for **G7**, for example, that line will also fit over **B♭7**, **C♭7**, and **E7**. These four chords are all equally spaced a minor 3rd apart and all accept the same diminished scale.

### Example 4

Let's begin with a few classic diminished sequences. A line every sax player knows is this one for G diminished. It's built with the scale tones in this order: 2-1-4-3-6-5, etc.

Many of the sequences and licks in the diminished scale include 4th intervals. This line will help you master the technique of fingering 4ths with a barre or two notes played with one finger. The fingerings are notated. If you have barring with your 4th finger, the fingerings can be played, in many instances, with a combination of your 3rd and 4th fingers.

A7

### Example 5

Another well-known diminished sequence is this descending line for the dominant diminished scale for B7. Your 4th finger will get a good workout with this one.

B7



1 2 4 1 3 4 1 3 4 1 2 4 1

T A B



3 4 1 3 1 2 4 1 3 4 1 3 1 2 4 1 3

T A B

### Example 6

The next sequence is similar to the first one. A good descending line, it contains several fourth intervals and follows this note sequence: 6-5-8-7-4-3-6-5, etc. It's played around the 8th fret and makes a good line for C7.

C7

### **Example 6A**

Sequences such as this one can be altered rhythmically to create different accents. For example, displace all of the notes by shifting them to the left one 16th note earlier, making the first note a pickup. Continue to repeat this procedure, making the first two notes the pickup and then making the first three notes the pickup.

1.)

C7

2.)

C7

3.)

C7

**Example 6B**

Also, convert **Example 6** and each variation in **Example 6A** into 8th notes, 8th-note triplets, and 16th-note triplets.

8th notes:

C7

T 8 11 9 10 8 11  
A  
B

8th-note triplets:

C7

T 8 11 9 10 8 11 11 9 10 8  
A  
B

16th-note triplets:

C7

T 8 11 9 10 8 11 11 9 10 8 8 11 11 9 10 8 8 11 7 10 10 8  
A  
B

### ⑨ Example 7

The sequence in **Example 7** is an ascending line for the A diminished scale. This line can be played, position-wise, a few different ways. Shown is a pattern designed to keep the sequence in a relative vertical position. However, it requires a bit of a stretch when you reach the 4th string.

Adim7

### ⑩ Example 8

You might find it easier to play the last sequence in a horizontal fashion using the four-note-per-string pattern. To save space, I've shown only the first two bars of the sequence. Work it out so you can continue up to the high F# on the 1st string.

Adim7

etc.

### **(11) Example 9**

One of my favorite diminished sequences is this descending line. It's a repeating six-note sequence that is designed to follow adjacent string sets while staying in the scale pattern. You might find it easier to pick by starting with a downstroke on the first note (C) and then alternate-pick the entire line.

### **(12) Example 10**

A wealth of ideas is at our fingertips when we think of the diminished scale in terms of intervals. Although the following examples are still considered sequences, we will arrive at them in a different way from the numerical patterns shown earlier. By placing various intervals (3rds, 4ths, 5ths, etc.) above scale and arpeggio tones, we can discover several unique diminished sounds.

In fact, an interesting coincidence occurs when certain intervals are placed above the four notes of a diminished 7th arpeggio (see Unit 5 on arpeggios). The resulting eight notes add up to all the notes in a diminished scale. Placing a major 3rd, perfect 5th, or minor 7th interval above the notes of a dim7th arpeggio results in a dominant diminished scale. Place a 4th, minor 6th, or major 7th and you get the diminished scale.

An example of this concept is this useful line built from major 3rd intervals placed above the four notes of a Gdim7 arpeggio. The result is a G dominant diminished sequence. I've added a picking twist to the descending part of this line by alternating the order in which the intervals are played.

**13 Example 11**

The interval sequence in **Example 11** is similar to the last but uses 5ths intervals. Here, 5ths are stacked above the four notes of an Adim7 arpeggio. Another way you can look at this line is 5th intervals moving up minor 3rds. Either way, the result is a great line for A7.

**14 Example 12**

Combining intervals can create interesting sounds also. This example combines alternating 4ths and major 3rds. I think of this sequence as 4ths moving up minor 3rds, with alternating 3rds also moving up minor 3rds. All resulting notes add up to an E, G, B $\flat$ , or C $\sharp$  dominant diminished scale. The line can be played not only over E7, as shown, but also over G7, B $\flat$ 7, or C $\sharp$ 7.

E7

T A B

7 7 8 10 7 6 8 8 10 9 6 6 8 7	9 9 6 6 7 8 9 9 6 6 8 7 9 11 10 12
-------------------------------	------------------------------------

**15 Example 13**

Up next is a challenging variation of the previous example. This sequence has an offset feel due to its five-note phrases. It begins with two 4th intervals played a minor 3rd apart followed by a major 3rd interval starting a whole step above the starting tone. However, the top half of the major 3rd interval becomes the first note of another group of 4th intervals. This creates a five-note melody that is repeated several times moving up b5th intervals. Descending, the five-note melody is a bit different but still uses two 4th intervals followed by a single note.

G7

TAB

4 4 7 6 5 8 7 6 9 8 7 | 8 10 11 9 9 12 11 10 15 15 12 12 13 14

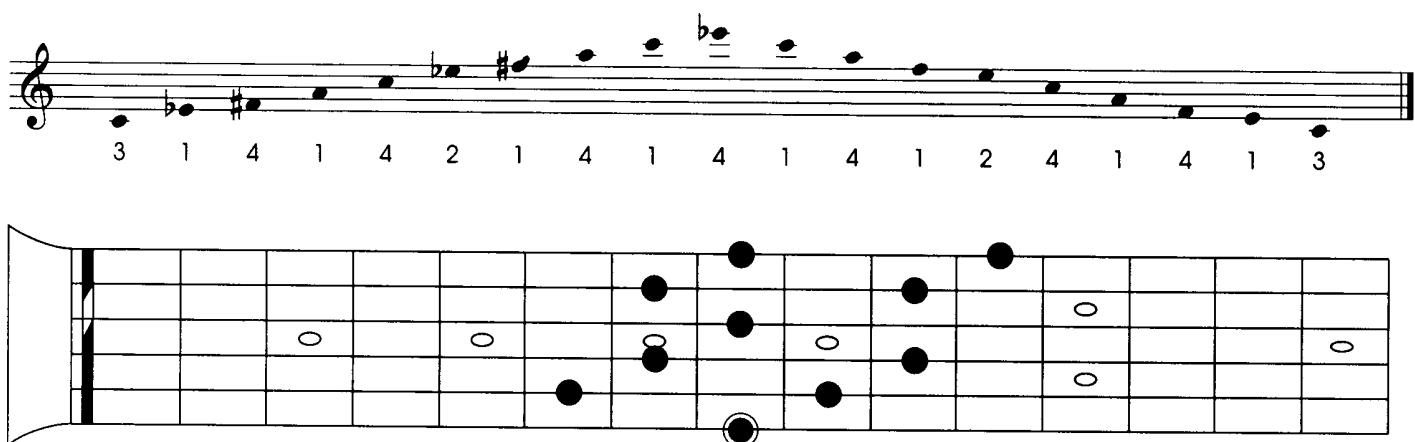
TAB

13 10 11 12 12 12 9 9 10 11 11 8 8 9 10 10 | 7 7 8 7 7 10 10 9 8 10

## Unit 6: Diminished Arpeggios

### Example 14A: C Diminished 7th Arpeggio

There are a few very useful arpeggios found in the diminished scale. The diminished 7th arpeggio is the most common. It's basically every other note of the scale with each note a minor 3rd above the next. It can be fingered a few ways, but let's start with this pattern.



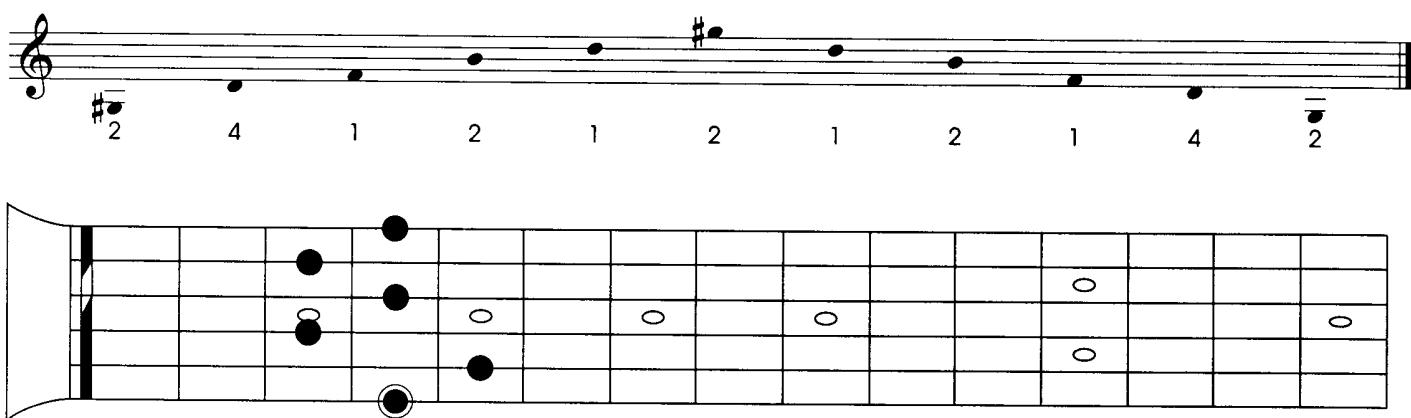
The image shows musical notation and a guitar fretboard diagram for a C diminished 7th arpeggio. The notation is in G clef, common time, with a key signature of one sharp (F#). The notes are: C, E, G, B, C, E, G, B. Below the notation is a fretboard diagram with fingerings: 3, 1, 4, 1, 4, 2, 1, 4, 1, 4, 1, 4, 1, 2, 4, 1, 3. The fretboard diagram shows the notes C, E, G, B, C, E, G, B across the strings, with open circles indicating string omission.

### **Example 14B: One-Note-Per-String G# Diminished Arpeggio**

The diminished 7th chord is the only type resulting from the traditional harmonization of the diminished scale (3rds stacked on top of each scale tone). If you harmonize the scale, the result will be eight diminished 7ths, one built off each scale tone.

You might find it interesting that combining two diminished 7th arpeggios, either a half or whole step apart, creates the eight notes of the diminished scale. This offers some interesting improvising options.

Let's first look at another arpeggio found in the diminished scale. This arpeggio is an edited-down version of the first. One way to look at it is that it's just the notes of a diminished 7th chord voicing on all six strings, or b5 intervals moving up major 6ths. Either way, it's a cool arpeggio but a bit tricky to play. Even though it's only one note per string, I still alternate-pick the arpeggio beginning with a downstroke. It can also be played using a sweep-picking technique. The fret-hand fingering is also shown.



The image shows musical notation and a guitar fretboard diagram for a G# diminished 7th arpeggio. The notation is in G clef, common time, with a key signature of one sharp (F#). The notes are: G#, B, D, F#, G#, B, D, F#. Below the notation is a fretboard diagram with fingerings: 2, 4, 1, 2, 1, 2, 1, 2, 1, 4, 2. The fretboard diagram shows the notes G#, B, D, F#, G#, B, D, F# across the strings, with open circles indicating string omission.

### **Example 14C: B Dominant Diminished Arpeggio**

Drawing from the dominant diminished scale, here's a five-note-per-octave arpeggio. It is built with the root, b2 (b9), 3rd, 5th, and b7th of the scale. It's a good arpeggio for altered dominants.

B7(b9)

### **Example 14D: B Dominant Diminished Shape Arpeggio**

An unusual variation of the last example is constructed using the root, b2, 3rd, and 5th of the dominant diminished scale. This four-note shape is then transposed up a major 6th and repeated. The process continues a third time up to the 1st string.

B7(b9)

### **Example 14E: Flatted 5th Bb Diminished Arpeggio**

The final diminished arpeggio is actually a stack of b5 intervals. By leaving out every other note of the diminished 7th arpeggio, we get this very horizontal, one-note-per-string arpeggio. A good left-hand fingering is 1-2-3-1-3-4 when ascending and the reverse when descending.

## Unit 7: Using the Diminished Scale

The diminished scale, due to its unique tension sound, is almost always used as an altered scale over functioning dominant 7th chords. You may be asking, "Aren't you supposed to play the diminished scale over diminished chords?" The answer is yes; however, we need to look a little deeper into diminished chords that show up in tunes. Most of the chords are substituting for dominant 7ths.

Before we talk about using the scale over dominants, let's first look at diminished chords. In theory, a diminished chord is a three-note triad with a root, minor 3rd, and flattened, or *diminished*, 5th. Much more common in popular music is the diminished 7th chord. This is a four-note version with a root, minor 3rd, and flattened 5th and 6th (correctly called a double-flattened or diminished 7th). All four notes are evenly spaced, three half steps (minor 3rd) apart. Because all four tones are equally spaced, any note can be considered the root.

This means that Bdim7, for example, is also Ddim7, Fdim7, and Adim7. This explains why we can slide a fingering of a diminished 7th chord up or down three frets and still end up with the same chord. The only thing that changes is the order or *inversion* of the notes, not the notes themselves.

This diminished principal works hugely in our favor when it comes to applying the diminished scale. The scale works exactly like the dim7 chord on the guitar fingerboard. Slide the fingering pattern up or down three frets and you get the same scale. The only difference is the scale's range (highest and lowest notes).

In addition, similar to the diminished chord, any diminished scale can have four roots. **The important thing to remember is that the four roots are the upper notes in the half steps.**

### Example 15A

Let's look at a C diminished scale.

<b>C diminished scale:</b>	C	D	E <sub>b</sub>	F	G <sub>b</sub>	A <sub>b</sub>	A	B	C
<b>Steps between:</b>	1	1/2	1	1/2	1	1/2	1	1/2	

You can see that the scale follows a symmetrical sequence of alternating whole and half steps. Because of this, the scale has multiple roots. Besides being C, it's also an E<sub>b</sub>, G<sub>b</sub>, and A diminished scale.

How this really pays off to improvisers is the fact that every diminished sequence, arpeggio, lick, and so on, can be played in four keys/positions on the fingerboard and still work over a given chord. This eliminates the need to learn diminished lines in more than one position.

## **Example 15B: Diminished Scale over Dominant 7ths**

In modern music styles, dominant 7ths are much more prominent than dim7th chords. And in many cases, these dominant 7ths are prime places for us to use the diminished scale.

There are two ways to locate the correct diminished scale to use over a dominant 7th. The traditional approach is to play a diminished scale a half step above the root of the dom7th chord: A♭ diminished scale for G7 or C diminished scale for B7 are a few examples. Many players relate that B7(b9) is essentially a Cdim7 chord. They always keep in mind this half-step relationship between a dom7 and a dim7.

Simpler for many is what might be called the modal approach. Just start on the root of the dom7 and play a diminished scale leading off with a half step rather than a whole step. Some musicians call this mode the dominant diminished scale, as mentioned earlier.

Below is a B dominant diminished scale showing the whole and half steps. The graphic includes the resulting B7 chord tones and alterations.

<b>B dominant diminished scale:</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E♭</b>	<b>F</b>	<b>G♭</b>	<b>A♭</b>	<b>A</b>	<b>B</b>
<b>B7 scale tones:</b>	Root	b9	#9	3rd	b5	5th	6th	b7	Root
<b>Steps between:</b>	1/2	1	1/2	1	1/2	1	1/2	1	1

Similar to the diminished scale, any dominant diminished has four possible names. The four roots are the lower notes in the half steps. So, B dominant diminished is also D, F, and A♭ dominant diminished.

Which of these two approaches is best? It's up to you. Both get the same results. Choose the approach that helps you quickly locate the correct diminished scale for a dom7th. If it's easier to think up a half step and grab the diminished scale, go with that. But if you would rather have a scale that starts right out on the root of the chord, use the dominant diminished.

### **(17) Example 16: Using the Diminished Scale in ii-V-I Progressions**

I'm sure by now you've tested the sound of the diminished scale over a dominant 7th. You've even jammed over a dom7 vamp to practice the scale. This is great, but probably the best place to start applying the diminished scale is over the ii-V-I progression. As you may already know, the ii-V-I progression is the mainstay of jazz standards and pop music. It's a simple progression that incorporates one of the most important and essential aspects of music: tension and resolution. The V in the progression is the tension chord leading us home to the I chord (resolution). The II chord usually acts as a set-up chord working with the V.

Below is a ii-V-I in C. Suggested scales are shown below the staff.

ii-V-I Progression in C Major

Dm7	G7	Cmaj7
II	V	I
D Dorian (C major)	G dom/dim (A $\flat$ diminished)	C major

Notice that the chords are in their basic 7th form. This is how most charts and fake books are written. The composer will typically leave it up to you to choose extended or altered voicings of chords (Dm9, G13(#5), Cmaj6/9, etc.). The only times you'll likely see big scary chords like this are on music charts that have a specific arrangement where certain altered or extended voicings are called for.

### **(18) Example 16A: ii-V-I in C PRACTICE TRACK**

Put on the CD ii-V-I in C Practice Track and try out the diminished scale over the V chord, but only over the V chord. When the progression reaches the I, Cmaj7, you need to switch to the C scale. Try to make the scale changes smooth without interruption.

As far as positions on the fingerboard go, a good starting place is around the 3rd fret. Think of the common G7 voicing at the 3rd fret and play the scale pattern there. You will also need to know C major in that area too.

When you've got this position down a bit, slide the diminished pattern up a minor third and practice the progression there. Locate the C-major scale there also to remain in that position. One secret is to pretend that the B $\flat$ 7, at the 6th fret, is G7 and reference the diminished scale off of the B $\flat$ 7.

Take this idea a step further and pretend the D $\flat$ 7, at the 9th fret, is also G7. This is a good thinking substitute because D $\flat$ 7 is the flat-five substitute of G7. Go up another minor 3rd to the 12th fret and pretend E7 is also G7.

### **19 Example 17: ii-V-I Lines with the Diminished Scale**

Now for a few ii-V-I lines featuring the diminished scale over the V. Most are rhythmically simple, which makes them easier to learn. Once you get a few under your fingers and in your ears, you'll be able to make them your own. Soon, you'll be able to make slight rhythmical modifications or add various stylistic effects such as bends, hammers, pull-offs, and sweeps.

Let's start with a simple ii-V-I line in G major. It starts with an Am9 arpeggio leading into an Eb diminished line over the D7 resolving to B, the 3rd of Gmaj7.

### **20 Example 18**

Next is a ii-V-I line in C with two bars on each chord. Two bars gives you more time to develop an idea on each chord. Of course, you can have the similar benefit by playing progressions that change every four beats or even every two beats if the tempo is slow enough.

The first two bars in this example demonstrate a bebop line over Dm7. The Ab diminished is played over G7 using a few shape ideas resolving to Cmaj7.

### ㉑ Example 19

Example 19 is another line in C, this time using 16ths. Starting in a higher register, the first phrase is a classic 16th-note triplet lick in D minor. Over the G7, an A♭ diminished arpeggio sequence ascends up to a resolution on a high E.

### ㉒ Example 20

Moving to the key of D, this line features major triads over the A7, creating an altered diminished sound. The triads are F♯ major and E♭ major. (See Unit 9 on major triads in the diminished scale.)

### ㉓ Example 21

Example 21 is a variation of a ii-V-I progression. Similar to a turnaround, a VI7 is added to set up and resolve back to the ii. In this case A7(b9) follows Cmaj7 and resolves to Dm7, which is followed by G7 taking us back to Cmaj7. This progression is ii-V-I-VI7. A typical turnaround is I-VI7-ii-V. So, the melodic lines in this example can be switched around to work over a turnaround too.

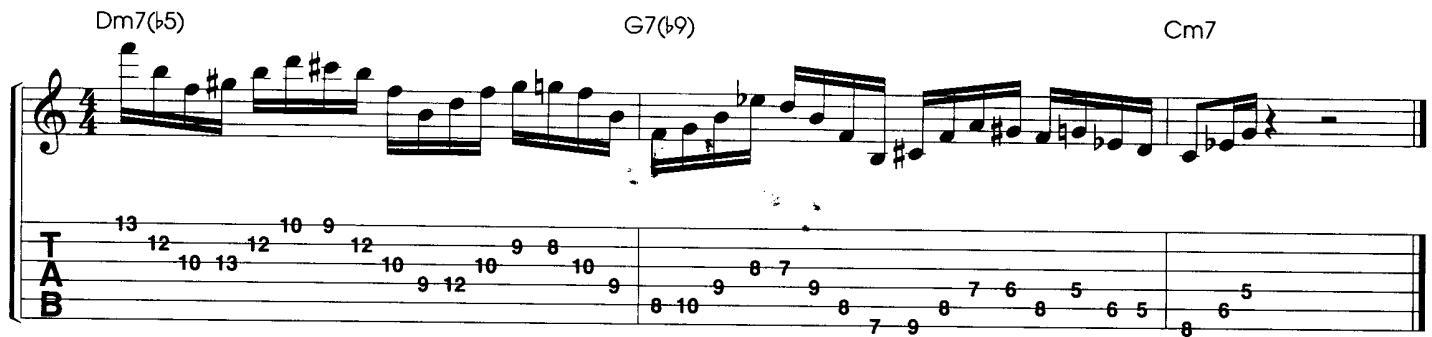
A few stylistic triplets are included, inspired by players such as Pat Martino and Joe Pass, as well as several classic bop phrases.

## Example 22

Another very important progression to be familiar with is the minor ii-V-i. It works the same as a major ii-V-I as far as tension-resolution goes, except the i is a minor chord and the ii is a m7(b5) chord. The minor II-V-I in C minor is Dm7(b5)-G7(b9)-Cm7. The b9 added to the V in fake books is a great indicator of a minor key.

The ii or m7(b5) is sometimes referred to as half-diminished because the first three notes form a diminished triad. Although a few other scales are commonly used over it (E♭ major, C harmonic minor, and F melodic minor for Dm7(b5)), the diminished is also a good choice. For Dm7(b5), use a D diminished scale. It turns out that D diminished is the same as A♭ diminished, which is the scale used for G7(b9). So you can use the same diminished scale for the II and V in minor.

This particular lick uses an interesting crisscross fingerboard shape through the first two bars. The diminished shape is seven notes long and repeats down b5 intervals. A few liberties were taken to keep the shapes easier to play. This resulted in a few notes not in the A♭ diminished scale (E♭ and A in the second bar). They don't seem to conflict with the diminished sound and come off sounding like passing tones.



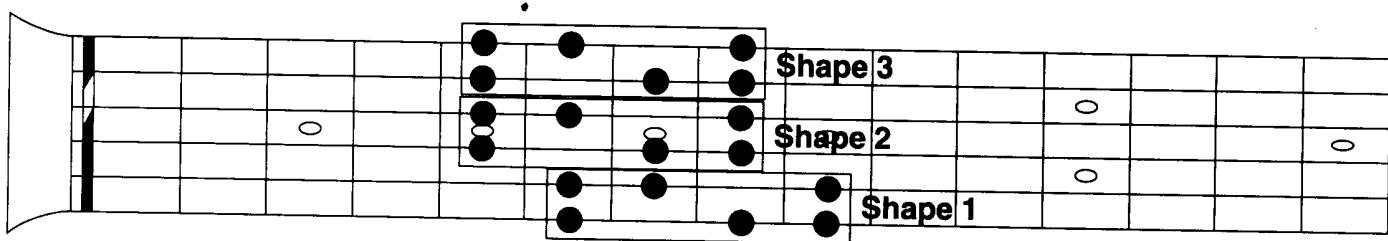
The musical score consists of a treble clef staff and three chords: Dm7(b5), G7(b9), and Cm7. Below the staff is a guitar neck diagram with three strings (T, A, B) and fingerings for each note. The tablature shows the corresponding fingerings for each note on the guitar strings.

String	Fret 1	Fret 2	Fret 3	Fret 4	Fret 5	Fret 6	Fret 7	Fret 8	Fret 9	Fret 10	Fret 11	Fret 12	Fret 13
T	13	12	12	10	9	12	10	9	8	10	9	8	7
A	10	13		10	9	12	10	9	8	10	9	8	7
B									7	9	8	7	6

# Unit 8: Six-Note Diminished Shapes

### **Example 23: B♭ Diminished Scale Fingerboard Shapes**

One of my favorite diminished scale techniques is using six-note shapes. It's a great way to invent all kinds of unusual diminished ideas and is very simple. Living within the basic diminished scale pattern (Example 3a) are three six-note shapes. Each shape is played on two adjacent strings—Shape 1: 6th and 5th strings; Shape 2: 4th and 3rd strings; and Shape 3: 2nd and 1st strings. Each shape is fingered and played exactly the same.



## Examples 24A-24F: Diminished Shape Melodies

Once you learn and understand the shapes, create a melody with the notes of the first shape. The melody doesn't necessarily have to have six notes. It can have as many as eight or more and as few as three or four. Then, just repeat the melody in each of the three shapes.

Here are a few diminished shape melodies I've found to be very useful:

#### Example 24A

#### Example 24B

### Example 24C

etc.

### Example 24D

#### Example 24F

#### Example 24F

Example 24

etc.

Example 24G

Musical notation for Example 24G. The top part shows a treble clef staff with various notes (dots) and rests. The bottom part is a tablature for three strings, labeled T, A, and B, with corresponding numbers below each string indicating fingerings: 8, 5, 8, 5, 6, 7, 8, 8, 6, 7, 5, 5, 8, 5. The word "etc." is written at the end of the tablature.

Example 24H

Musical notation for Example 24H. The top part shows a treble clef staff with notes and rests. The bottom part is a tablature for three strings, labeled T, A, and B, with corresponding numbers below each string indicating fingerings: 8, 5, 8, 5, 6. The word "etc." is written at the end of the tablature.

## Unit 9: Major Triads in the Diminished Scale

A surprising number of chords can be extracted from the diminished scale, including minor, m7, dim7, dom7, and several altered dominants: dom7(b5), dom7(#9), and dom13(b9) to name a few. Developing lines by combining arpeggios from these chords offers a lifetime of exploration in diminished sounds.

However, another chord, also found in the scale, stands out for its simple and pure sound—the major triad. By applying the diminished principle, we discover not one but four major triads living in every diminished scale. They are equally spaced minor 3rds apart, and when combined, some very cool sounds emerge.

### **(27) Example 25:**

#### **Major Triad Positions for B♭ Diminished (A Dominant Diminished) Scale Over A7**

Creating lines with major triads within the diminished scale is a favorite technique of contemporary jazz players.

The best way to unlock the power of the major triads in diminished is to learn their arpeggio shapes in specific positions. And since most applications of diminished lines are over dom7 chords, the positions should be based on dom7 chords as well. The following example illustrates the four major triad arpeggios in position surrounding an A7 chord at the 5th fret. The major arpeggios are A, C, E♭, and F♯.

Adding together the notes from each triad totals 12 pitches; however, lose the duplicates and the total becomes eight, the exact notes of the diminished scale.

Shift all four triads up a minor 3rd and something interesting occurs. They all reappear, just in a different order. The A triad becomes C, C becomes E♭, E♭ becomes F♯, and F♯ is now A. This process continues up another minor 3rd and so on.

With the triads under your fingers, experiment combining short phrases from each triad over a static A7 vamp. You might, for example, play three or four notes from each triad. It doesn't matter in what order you play the triads or on which one you start or end. Just keep in mind the chord you are playing over, in this case A7.

### Example 26

Here are some example lines demonstrating this concept. They're all notated in the same key because of the ease in which diminished lines can be moved in minor 3rds. In fact, any diminished idea played on three consecutive frets covers all 12 keys. This means a diminished line for A7 played at the 5th fret works for A7, C7, Eb7, and F#7. Move the line up one fret and it now works for Bb7, C#7, E7, and G7. Move it up one more fret and it now covers B7, D7, F7, and Ab7—all 12 dominant 7ths.

A7



The musical notation consists of two parts. The top part shows a melodic line on a staff with a treble clef and a key signature of one sharp (F#). The line starts at the 5th fret and moves up to the 8th fret. Below the staff, the notes are labeled with their corresponding major keys: A major, C major, Eb major, F# major, A major, C major, Eb major, F# major. The bottom part shows a guitar neck with three horizontal strings (T, A, B) and six vertical frets. The fingerings are indicated by numbers below each string: 5, 4, 7, 3, 7, 5; 5, 6, 5; 3, 4, 3, 6; 7, 6, 5, 5; 5, 8, 8; 6, 7, 6, 9; 5. The neck is divided into four measures by vertical bar lines.

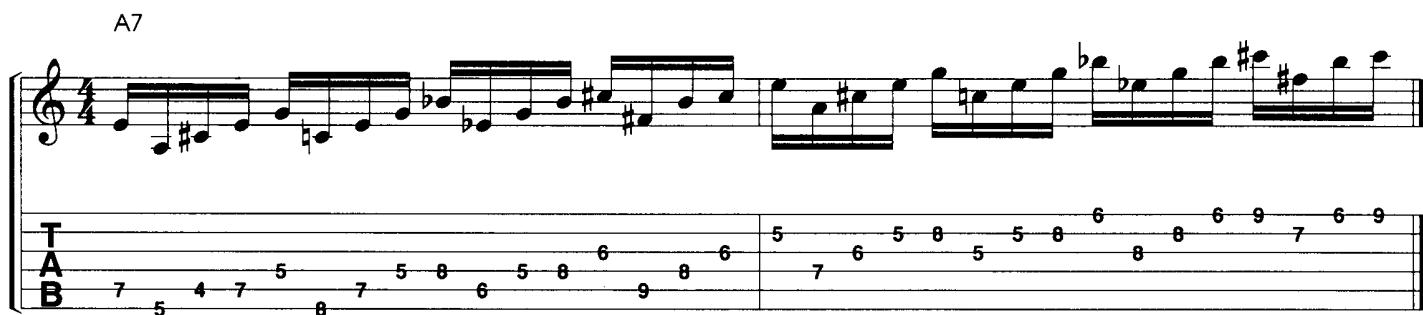
The first example is built off the triads moving up minor 3rds starting with A major. Because there are many possible ways to play lines like this, it's challenging for guitar players to find the best fingering pattern. The example shows one that works for me. I might at times, however, play every triad in this line using the same three-note shape on two strings. For example, the first A triad would be played the same, but the following C triad would also be fingered the same, starting on the 3rd fret, 5th string, followed by the next two notes on the 4th string, 2nd and 5th frets. This requires quite a bit of position shifting but often works out better in many situations.

Something important to remember about symmetrical lines is that you are more likely to play shorter segments in real-world soloing. Many of the ideas (especially the sequences) in this book are quite long, often covering several octaves. They're great for learning the fingerboard and building technique, but you probably wouldn't want to play them in their entirety in an improvised solo.

### Example 27

This variation of Example 26 rearranges the triads into a four-note picking sequence. It begins with the 5th of each triad followed by the root, 3rd, and 5th again.

A7



The musical notation consists of two parts. The top part shows a melodic line on a staff with a treble clef and a key signature of one sharp (F#). The line starts at the 5th fret and moves up to the 8th fret. The bottom part shows a guitar neck with three horizontal strings (T, A, B) and six vertical frets. The fingerings are indicated by numbers below each string: 7, 5, 4, 7, 5; 5, 8, 6, 5, 6; 6, 9, 8, 6, 6; 6, 9, 7, 6, 9. The neck is divided into four measures by vertical bar lines.

### Example 28

Some rhythmic variation is added to the next triad line to demonstrate one of thousands of possibilities. Rhythmical phrasing, when introduced to symmetrical scale melodies and sequences, can really breath life into their sometimes predictable and mechanical sound.

The line starts with an A-major triad and then jumps up to the F#. The same phrase is repeated with the next two triads, Eb and C. The A-to-Eb triad phrase is then played again, an octave higher, before a bluesy ending.

A7

### Example 29

Example 29 looks like a workout at first, but once you understand the formula, it's a bit easier. Again, A, C, Eb, and F# triads are used for this A dominant diminished line. The line is a 9-note sequence that is repeated up minor 3rd intervals. But, unlike the previous examples, the triads are played in different inversions.

Following an A-major triad in root position, an F# triad is played starting on its 3rd, then 5th, and root. The Eb triad begins on the 5th to the root and 3rd leading into a C-major triad in root position. This completes the basic sequence.

Now the entire line is repeated a minor 3rd higher and so on. Fingerings can be challenging, but I think you'll find it's worth the effort to work them out. This sequence offers some very cool melodic possibilities.

A7

### ㉙ Example 30

Example 30 approaches the triads a bit differently. Descending with an A-major triad, the line moves to an F# triad, followed by Eb and C triads. When the line ascends in the second bar, the sequence is inverted.

This line invites slides or hammer-ons in several places. Also try it as 8th- or 16th-note triplets. It also makes a good technique exercise when repeated several times. Add the very last E note as a pickup to start out if you like.

### ㉚ Example 31

Jazz greats John Coltrane and Chick Corea, among others, have explored the diminished scale through triad shapes. The next example demonstrates a famous eight-note sequence using minor 7th arpeggios mixed with major triads. The minor 7th arpeggios can also be thought of as four notes of a minor pentatonic with the b3 on top. (For example: G, Bb, C, and Eb are from C-minor pentatonic, 5->7-root->3.) This line is located in a higher fingerboard position because it is easier to play in a descending horizontal fashion.

### ㉛ Example 32

Using the concept from the previous example, the next lick uses a bit of rhythm and a passing note (F natural in the first bar) to add more musicality. The eight-note sequence is also broken up to make it sound less predictable.

### 35 Example 33

Minor 7th arpeggios can also be thought of as major triads with an added 6th tone. And in every diminished scale there are also four minor 7th arpeggios, spaced minor 3rds apart.

Here's a line using the four minor 7th arpeggios in the B♭ diminished scale (Am7, Cm7, E♭m7, and C♯m7). This is another line that's a good technical exercise when repeated many times. Use the last high C♯ as a pickup to the beginning.

A7

T 6  
A 7 8 8 5  
B 5 6 8 9 6 5 7 8 5 8

6 5 8 6 9 7 6 7 6 9 7 10 9 8

### 36 Example 34

The final triadic diminished line demonstrates combining triads with an unequal amount of notes. This makes the line sound more interesting and unpredictable. It's a 16-note sequence that is repeated up flat 5th intervals. The entire three-bar line is a tremendous fingering and picking exercise, but you might find the last bar a very usable lick.

A four-note A-major triad begins the line followed by only three notes of an F♯ triad ending on B♭. This B♭ becomes the 5th degree of an E♭ triad and is followed by the root and 3rd. Then comes a four-note, root-position C-major triad. The sequence is completed with a descending A-major triad. The entire line is now repeated starting on E♭ and again on A an octave higher.

A7

T 5 4 7 4 4 6 6 5 8 7 5 5 7 7 4

6 5 8 5 7 6 8 8 5 7 6 8 5 8 5 5 6

The best-kept secret about diminished lines, such as the examples covered so far, is how one line can become four unique lines. For instance, if we are soloing over A7 and play triad Example 28 moved up a minor 3rd (or b5th or 6th), it takes on a different sound from the original location. Although it's still in the B♭ diminished scale, different notes are accented, giving it a similar but different feel. This is great news when you're trying to get the most out of lines you learn. So, if you get bored with one of your diminished lines, move it to another location along the minor 3rd cycle. It just might sound better than ever.

## UNIT 10: Using the Diminished Scale Over Static Chords

By the early 1970s fusion, or jazz-rock, emerged from the world of jazz, combining the sounds and instrumentation of rock with the harmony and improvising sophistication of jazz. Traditional jazz standards gave way to new forms of compositions that relied more on rhythm, grooves, and modal or static harmonies. Jazz players quickly adapted to the new music by using proven improvising concepts in new and unique ways. This new approach to rock made it easier to use the traditional altered scales such as diminished, whole-tone, and melodic minor in places considered wrong only a decade before.

In this section we'll learn some diminished scale lines over static chords. A static dom7 is the obvious starting place; however, a few examples demonstrate diminished over m7, m7(b5), and dom7(#9).

It's important to remember that a static chord like C7, for example, belongs to a large family of extended dominants. Chords such as C9, C11, C13, C7sus, and Bb/C are extended versions of C7. And for soloing, the scale choices for all of these are the same.

### Example 35

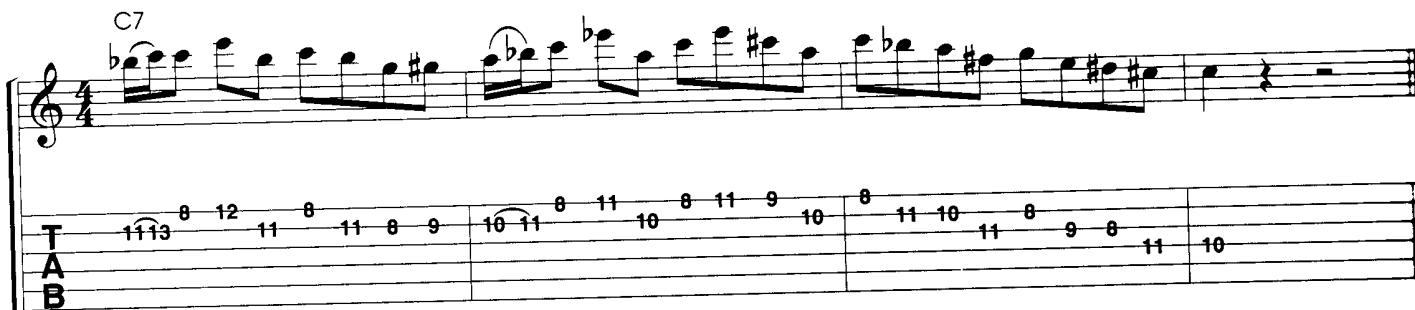
Another important note: Good soloing, using the diminished scale over static chords, is an exercise in proper phrasing. To make the scale sound right, you need to weave in and out of the scale, alternating it with the home scale. If you just play the diminished scale the entire time, your solo will likely sound too outside and nonsensical. A static C7 blues lick starts off this section. It combines the C blues scale and the C dominant diminished scale.



The musical example consists of two staves. The top staff is a standard musical staff with a treble clef and a 4/4 time signature. The bottom staff is a guitar tab staff with three horizontal lines representing the strings, labeled T (top), A (middle), and B (bottom). The notation shows a sequence of notes and rests. Above the staff, the label "C7" indicates the chord. Below the tab staff, fingerings are indicated: T 11 8 10 10 8, A 10 8 9 11, B 8 10 11. These correspond to the notes played on each string across the four measures shown.

### Example 36

We'll add a few bends to the next static example, creating another bluesy diminished lick for C7. To have an effective impact, this lick should be set up with an inside blues or jazz phrase using a C blues or a C Mixolydian scale.



The musical example consists of two staves. The top staff is a standard musical staff with a treble clef and a 4/4 time signature. The bottom staff is a guitar tab staff with three horizontal lines representing the strings, labeled T (top), A (middle), and B (bottom). The notation shows a sequence of notes and bends. Above the staff, the label "C7" indicates the chord. Below the tab staff, fingerings are indicated: T 11 13 8 12 11 8, A 11 8 9, B 10 11 8 11 10 8 11 9 10. These correspond to the notes played on each string across the four measures shown.

## Minor

The next two diminished lines are over a static m7. Applying the diminished scale this way is definitely a technique reserved for jazz situations. The examples also demonstrate two different approaches to superimposing the diminished over m7 chords.

### Example 37

This example shows a more traditional approach. Jazz players found that they could create tension and resolution over a single chord by occasionally hinting at its V. An example is when soloing over Cm7, play short G7 phrases that resolve back to Cm7 even though the accompanist continues to play Cm7. Well-placed G7 ideas can add significantly to a solo. These G7 ideas can be implied with several scales, including diminished and whole-tone.

Example 37 is a two-bar line with the first line a jazz phrase for Cm7. The second bar twists into a few major triads from the A♭ diminished scale before resolving back to Cm7.

Cm7 (G7(b9))

T  
A  
B

3 5 6 3 4 5 3 5 2 5 3 2 6 5 3 5 4 3 5 4 6 3 3 4 5 5 2 3

### Example 38

Creating more of a modern, outside sound, the next line over Cm7 uses a D♭ diminished scale in the second and third bars. In this approach, the Cm7 is treated similarly to a C7 by the use of the same diminished scale. (For Cm7 use C dominant diminished or D♭ diminished.) Take care not to overemphasize the E notes (major 3rd) over the Cm7.

Cm7

T  
A  
B

10 9 10 7 8 10 8 11 8 9 10 8 10 11 8 11

T  
A  
B

10 8 9 12 11 9 8 11 10 8 9 12 11 9 8 11 11 9 8 11 10 11 8 11 9 8 11 10

### Minor 7(b5)

Unusual but still worth considering is a static m7(b5). Because of its diminished properties, the m7(b5) is a natural location for the diminished scale. Think of it as the same as a dim7 and locate the diminished scale right off of its root (Em7(b5), use E diminished scale).

#### ④ Example 39

The lick starts with an Em7(b5) arpeggio and changes to E diminished leading into the second bar. Then a basic diminished sequence descends back down to the chord's root.

This line can also be played over C7. Em7(b5) and C7 are both in the key of F major. Em7(b5) can also be thought of as a substitute for C9.

Em7(b5)

The musical example consists of two parts. The first part shows a treble clef staff with a 4/4 time signature. It features an arpeggiated Em7(b5) chord followed by a sequence of eighth-note chords: E diminished, B diminished, and A diminished. The second part is a guitar tablature (T-A-B) showing a descending diminished scale across three strings (E, B, G) and six frets (7, 10, 8, 7, 8, 7, 11, 9, 8, 11, 10, 11, 8, 9, 8, 11, 10, 8, 7, 10, 9, 7, 7).

### Dominant 7 (#9)

The dominant 7(#9) is one of the only altered dominants that is also used in static situations. From Hendrix's "Purple Haze" to numerous blues and funk tunes, the dom7(#9) lends itself well to the diminished scale. The chord has both a major and minor 3rd (#9) that is also reflected in the scale.

#### ⑤ Example 40

This lick uses a five-note D♭ diminished shape alternating with a C-minor pentatonic scale.

C7(#9)

The musical example consists of three parts. The first part shows a treble clef staff with a 4/4 time signature. It features a C7(#9) chord followed by a sequence of eighth-note chords: D diminished, G diminished, and C minor pentatonic. The second part is a guitar tablature (T-A-B) showing a descending diminished scale across three strings (E, B, G) and six frets (9, 10, 9, 12, 11, 8, 11, 8, 10, 8, 10, 7, 8, 7, 10, 9, 10). The third part shows a treble clef staff with a 4/4 time signature. It features a C minor pentatonic scale followed by a sequence of eighth-note chords: D diminished, G diminished, and C minor pentatonic. The guitar tablature (T-A-B) shows a descending C minor pentatonic scale across three strings (E, B, G) and six frets (8, 10, 8, 9, 8, 11, 8, 10, 8, 10, 8, 11, 8, 10, 8, 10, 8, 10).

# The Whole-Tone Scale

## **UNIT 11: Fingerings of the Whole-Tone Scale**

Let's start out by learning a good fingering for the whole-tone scale. "Only one pattern?" you may ask. Just as with the diminished scale, it's only practical to learn one movable pattern. If you already know a fingering or two, stick with them or feel free to modify this pattern to suit your technique and style. The ultimate goal is to be able to play the whole-tone scale anywhere on the guitar in any key.

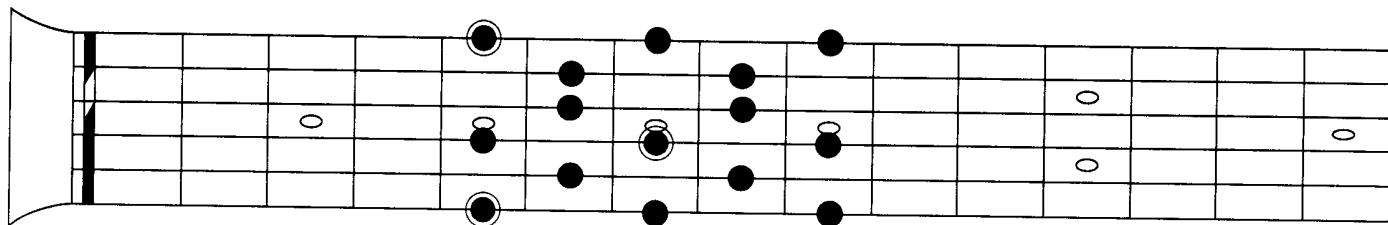
This is an especially easy task for the whole-tone scale since patterns repeat up or down the fingerboard every two frets. Remember, any note in the scale can be the root, so this pattern is not only an A whole-tone but also the B, C#, D#, F, and G whole-tone scales.

### **Example 41A: PATTERN #1**

This pattern gives you a range of two and one-third octaves and uses three-note-per-string moves on the 6th, 4th, and 1st strings. These can be a bit of a stretch if you're not used to them, especially lower on the fingerboard. Most players (including me) use their 1st, 3rd, and 4th fingers; however, some use their 1st, 2nd, and 4th.

A good picking pattern for this scale is to use alternating picking starting with a downstroke on the first low A.

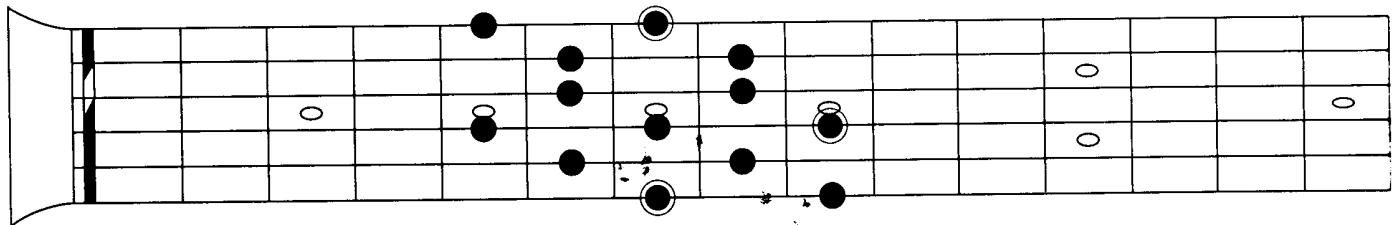
A Whole-Tone Scale



### **Example 41B: PATTERN #2: The "Speed" Version**

By removing the bottom and top notes from the first pattern, we have a streamlined version that, in many instances, may be more useful. You end up with only one three-note-per-string move (4th string), and the pattern lays nice in one position. It's still the A whole-tone scale, but it's probably easier to think of it as the B whole-tone scale.

B Whole-Tone Scale



### **How to Learn and Practice the Whole-Tone Scale**

#### **④ A7 PRACTICE TRACK**

Here's an A7 groove on the CD to play along with. As I have mentioned before, it is important to hear, right from the beginning, how a scale works musically. As you probably figured out by now, the whole-tone scale, like the diminished, is primarily played over a dominant 7th chord. Although its more common usage is over a functioning dominant 7th, it is still a great idea to practice the scale over a static dominant 7th chord vamp.

One great thing about the whole-tone is that you can simply slide the pattern up or down two frets. The scale will still be in the same key; only the range (lowest and highest possible notes) will change. So, while learning the pattern over the A7 vamp, move it to other locations on the neck. Just visualize and use the roots, located every other fret, on the low E string as a guide.

## Additional Whole-Tone Patterns

Here are two more popular patterns for the whole-tone scale—two-note- and three-note-per-string versions.

### **Example 41C: Two-Note-Per-String Pattern (C Whole-Tone)**

This example is unusual in that when ascending, it moves down the fingerboard. It's easy to play because there are only two notes played on every string. I use my 1st and 4th fingers, but you may feel more comfortable using your 1st and 3rd fingers instead.

The musical notation for Example 41C consists of a staff with sixteenth-note patterns and a guitar neck diagram. The neck diagram shows the strings T (top), A, and B, with fret numbers 8, 10, 7, 9, 6, 8, 5, 7, 5, 7, 4, and 6 indicated below each string. Below the neck diagram is a fretboard diagram with note heads placed on specific frets, corresponding to the patterns shown above.

### **Example 41D: Three-Note-Per-String Pattern (G Whole-Tone)**

When most guitar players study the whole-tone scale, they inevitably spend time on the horizontal three-note-per-string pattern. Good for long runs and changing positions, the pattern is two whole steps per string moving up  $\frac{1}{5}$  intervals. Most players use their 1st, 3rd, and 4th fingers, but again, 1st, 2nd, and 4th might be better for you. To keep your place when crossing the fingerboard, try watching your first finger as a guide as it moves up or down  $\frac{1}{5}$  intervals. If you're just getting your feet wet with the whole-tone scale, wait a few months before tackling this one.

The musical notation for Example 41D consists of a staff with sixteenth-note patterns and a guitar neck diagram. The neck diagram shows the strings T (top), A, and B, with fret numbers 3, 5, 7, 4, 6, 8, 5, 7, 9, 6, 8, 10, 8, 10, 12, 9, 11, and 13 indicated below each string. Below the neck diagram is a fretboard diagram with note heads placed on specific frets, corresponding to the patterns shown above.

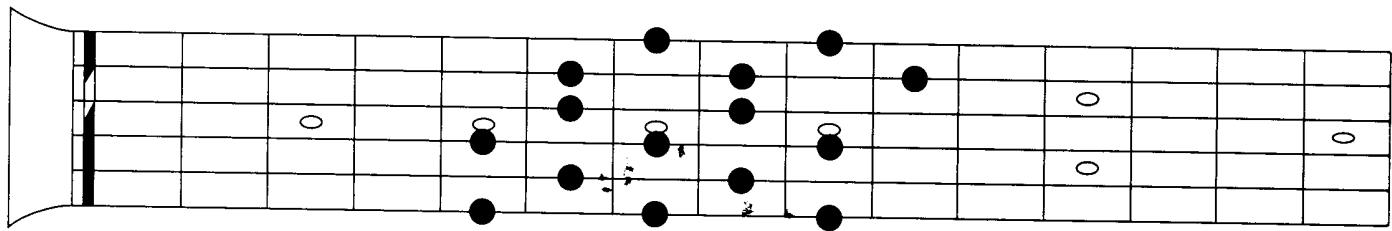
### **Example 41E: Five-Note Shape Whole-Tone Pattern**

There's one more pattern I want to show you. Similar to the six-note shapes we played with the diminished scale, here's a whole-tone version for the same concept. It's a five-note whole-tone shape that is played on the three string sets: 6-5, 4-3, and 2-1. We can invent melodies within the shapes and duplicate them up or down to the next string set. The pattern is very similar to the first shown earlier (Example 41a) with the exception of three notes rather than two played on the 2nd string. Only two notes are played on the 1st string.

Whole-tone scale pattern (E, F#, G, A, B) on three string sets (6-5, 4-3, 2-1).

TAB notation:

T	A	B	5	7	9	6	8	6	8	10	7	9
---	---	---	---	---	---	---	---	---	---	----	---	---



## UNIT 12: Whole-Tone Scale Sequences

### Example 42

Here are a few useful whole-tone sequences. This first one is for the A whole-tone scale and uses the common 1234-2345, etc., sequence. Practice it slowly and in time (with a metronome or click) at first. Look for difficult areas either in picking or fingering; then isolate and emphasize those sections. Make up a short exercise with this section (maybe 8 to 16 notes long) and repeat it several times until you get it down.



Musical notation and TAB for the first whole-tone sequence. The music is in 4/4 time with a key signature of A major (no sharps or flats). The TAB shows the strings (T, A, B) and fret positions (e.g., 5, 7, 9) for each note. The sequence starts with a 1234 pattern (A-C-D-E) and continues with a 2345 pattern (C-D-E-F#).



Musical notation and TAB for the second whole-tone sequence. The music is in 4/4 time with a key signature of B major (one sharp). The TAB shows the strings (T, A, B) and fret positions for the sequence. The sequence starts with a 1234 pattern (B-C-D-E) and continues with a 2345 pattern (C-D-E-F#).



Musical notation and TAB for the third whole-tone sequence. The music is in 4/4 time with a key signature of G major (no sharps or flats). The TAB shows the strings (T, A, B) and fret positions for the sequence. The sequence starts with a 1234 pattern (G-A-B-C) and continues with a 2345 pattern (A-B-C-D).

### Example 43A

The next sequence is built with major 3rd intervals moving in a parallel fashion up the A whole-tone scale. In real-world improvising, you would probably never play a long sequence like this example. It's preferable to use shorter segments connected to another melodic idea. But learn and practice it in its entire form to help build up your technique.



### **Example 43B**

Here's the same 3rds sequence descending.



### Example 44

How about one of those classic saxophone whole-tone riffs. Think of this sequence as a four-note melody repeating down in descending 3rds.



### 49 Example 45

Here is an unusual seven-note sequence along the lines of John McLaughlin and Al DiMeola. Odd-numbered sequences can sound very cool because it's hard for the listener to detect obvious note groups.

Musical notation and tablature for Example 45. The notation shows a treble clef, 4/4 time, and a key signature of E7. The tablature shows the notes on a six-string guitar neck with fingerings below each string. The sequence starts at the 12th fret of the 6th string and moves down to the 1st fret of the 3rd string.

E7

T 12 10 8 11 9 11 9 11 9 12 10 8 9 12 10 8 11 9 12

### 50 Example 46

I use this next sequence with every scale I know. It's a little challenging to play but well worth the effort learning it. It's a six-note melody that is repeated down b5 intervals. I've included the fingerings on this one to help you work it out. Sequences like this one with five- or six-note phrases sound more interesting because it's difficult for the listener to track the repeating pattern. Check it out over Bb7, but remember that every note in the sequence can be the root of a dom7, which it will also work over.

Musical notation and tablature for Example 46. The notation shows a treble clef, 4/4 time, and a key signature of Bb7. The tablature shows the notes on a six-string guitar neck with fingerings below each string. The sequence starts at the 10th fret of the 6th string and moves down to the 7th fret of the 3rd string.

Bb7

T 10 12 9 11 10 8 9 11 7 9 9 7 7 9 6 8 7

Musical notation and tablature for Example 47. The notation shows a treble clef, 4/4 time, and a key signature of B7. The tablature shows the notes on a six-string guitar neck with fingerings below each string. The sequence starts at the 5th fret of the 6th string and moves down to the 4th fret of the 3rd string.

### 51 Example 47

Based on the previous example, this is a ten-note melody repeated a 9th interval below. You can see that it's the same first six notes (starting on B this time) with four descending scale tones. It makes an interesting line for B7. Every whole-tone melody can become a sequence when repeated in another location in the scale.

Musical notation and tablature for Example 47. The notation shows a treble clef, 4/4 time, and a key signature of B7. The tablature shows the notes on a six-string guitar neck with fingerings below each string. The sequence starts at the 7th fret of the 6th string and moves down to the 6th fret of the 3rd string.

## UNIT 13: Whole-Tone Arpeggios

### Example 48A: Augmented Arpeggio

The one traditional arpeggio that best reflects the whole-tone sound is the augmented arpeggio. It's also symmetrical in that it is built with major 3rds one on top of another. When compared to the whole-tone, the augmented arpeggio sounds every other note. Below is a good fingering pattern for the augmented arpeggio. The most challenging part might be barring with the 2nd finger on the 2nd and 3rd strings. Although it's possible to play these two notes with separate fingers, try to do it barring the two strings since this technique will be extremely useful in the future.

You might find it helpful to learn this arpeggio in two parts: Play the first four notes over a few times and then work on the higher four-note group. Once you get them down, connect them together to create one smooth arpeggio. Alternate-pick the notes to get it clean before you venture into the land of "sweeps" with this arpeggio.

C7

### **Example 48B: Augmented Arpeggios, Whole-Step Apart (C & D)**

As we just learned, the augmented arpeggio outlines every other note in the whole-tone scale. To play the notes left out in the scale, simply slide the arpeggio up or down a whole step. This means that two augmented arpeggios, a whole step apart, form the notes of the whole-tone scale. Players have picked up on this for years, combining the two arpeggios to create many interesting augmented/whole-tone sounds. The following line is a two-octave arpeggio that is Caug for the first four notes, switching to Daug (or Bb-aug) for the top four. It's important to remember that, like the whole-tone scale, any note in an augmented arpeggio can be considered the root.

### **Example 48C: C Whole-Tone Arpeggio**

Here's what I call the Whole-Tone Arpeggio by combining the two augmented arpeggios with the scale. Check it out.

The musical notation shows a treble clef, a key signature of one sharp (F#), and a common time signature. The notes are: C, D, E, F#, G, A, B, C. Below the notation is a fretboard diagram for a guitar. The strings are numbered 1 through 6 from left to right. The notes are fingered as follows: 2, 1, 3, 2, 1, 1, 2, 1, 3, 1, 2, 1, 1, 2, 3, 1, 1. The fretboard diagram shows solid dots at the 2nd, 3rd, 5th, 7th, 9th, 11th, and 13th frets across all six strings, corresponding to the notes in the arpeggio pattern.

### **Example 48D: B<sub>b</sub>(b5) Augmented Arpeggio**

This next arpeggio is built with b5 intervals. It might look familiar because we already learned it as a diminished arpeggio. Coincidentally, it's also an augmented arpeggio with every other note omitted. With only one note per string, it's a bit tough to play. The secret is to finger it 1-2-3-1-3-4.

The musical notation shows a treble clef, a key signature of one flat (Bb), and a common time signature. The notes are: Bb, C, D, E, F, G, A, Bb, C. Below the notation is a fretboard diagram for a guitar. The strings are numbered 1 through 6 from left to right. The notes are fingered as follows: 1, 2, 3, 1, 3, 4, 3, 1, 3, 2, 1. The fretboard diagram shows solid dots at the 2nd, 3rd, 5th, 7th, 9th, 11th, and 13th frets across all six strings, corresponding to the notes in the arpeggio pattern.

### **Example 48E: 1-3-b5 C Augmented Arpeggio**

Here is another whole-tone arpeggio using three notes per octave. Built using the root, 3rd, and b5, it's fingered in an unusual fashion to keep it in a vertical four-fret area.

The musical notation shows a treble clef, a key signature of one sharp (F#), and a common time signature. The notes are: C, D, E, F#, G, A, B, C. Below the notation is a fretboard diagram for a guitar. The strings are numbered 1 through 6 from left to right. The notes are fingered as follows: 1, 4, 1, 2, 1, 3, 1, 4, 1, 3, 1, 2, 1, 4, 1. The fretboard diagram shows solid dots at the 2nd, 3rd, 5th, 7th, 9th, 11th, and 13th frets across all six strings, corresponding to the notes in the arpeggio pattern.

## UNIT 14: Using the Whole-Tone Scale

Applications of the whole-tone scales are similar to those of the diminished scale. Typically treated as an altered scale, the whole-tone speaks a very specific sound. Some say it sounds unsettling, odd, or even spooky while others think it has a modern outside sound. Most agree it does not sound very relaxed or homey and should be reserved for very specific situations. And those situations are over dominant 7th chords.

To really understand the whole-tone's potential, you need to understand its makeup and how it compares to a dominant 7th. We discussed earlier functioning and static dominants and showed a comparison of the whole-tone to a dominant 7th chord (Unit 2). You can see that the scale creates the root, 2nd, 3rd, b5th, #5th, and b7th of a dominant chord. Most musicians know that because of the altered 5ths, this leans the sound, created by this scale, in an augmented direction. This doesn't mean that you can only play the whole-tone over augmented, Dom7(b5), or #5 chords. It is, however, a good thing to keep in mind.

### **Example 49: Whole-Tone in ii-V-I Progressions**

Let's get started using the scale in our old friend the major ii-V-I progression. Return to the ii-V-I in C Practice Track (Track 18) and try out the whole-tone over the V chord, but remember—only over the V chord! When the progression resolves to the I chord, Cmaj7, you also need to resolve to the C scale. Start out playing nonstop even 8th notes until you can make the scale changes smooth without interruption. This will force you to prepare ahead for scale changes. The good news about the whole-tone is that its single pattern is always within your reach. For G7, visualize all the whole steps (starting at the 1st fret) along the low E string. Each one of these notes is a root and starting place for the pattern.

### **Example 50: ii-V-I Lines with the Whole-Tone Scale**

After you have spent some time practicing with the ii-V-I practice track, start memorizing and adding the following examples. Most are rhythmically simple and easy to learn. When you get one down, play it along with the track until you're comfortable with the changes.

Following the Dm7 line, which includes a few chromatic passing notes, is a straight ascending G (or B) whole-tone scale over the G7 that resolves with a C-major scale pattern over Cmaj7.

### Example 51

The next example doubles up with 16th notes for another ii-V-I in C. We're also moving down to a lower fingerboard position around the 3rd to 5th fret area. A traditional jazz-style melody starts over the Dm7, setting up the big whole-tone lick in the second bar. Although the last note in the bar (G♯) is not in the G whole-tone scale, it serves as a leading tone to the 5th of Cmaj7 (G) in the last bar.

Dm7

T 5 | 6 2 5 5 3 5 4 2 5 4 3 2 5 3 2 5

A

B

G7

Cmaj7

T 2 6 4 4 6 5 7 3 4 4 6 5

A 1 5 3 2

B 3

### Example 52

This ii-V-I line in B♭ begins with a Pat Martino-inspired Cm7 line and then moves into a descending whole-tone/augmented line over the F7 that resolves to the root of B♭maj7. It has several consecutive string-augmented and major 7th arpeggios, which can be challenging to pick.

Cm7

T 8 10 11 8 10 7 8 9 7 9 10 7 8 10 8 9

A

B

F7

B♭maj7

T 10 11 7 6 5 6 6 8 6 7 4 5 6 7 5 7 8 7 6 5 8 7 6 5

A

B

### 56 Example 53

This final example demonstrates using chromatic passing notes between scale tones to give a bebop flavor to the line. I also included a few rhythms to break up the line to make it more musical. The passing notes in the whole-tone (D7) are placed after the C, G♯, E, and lower C. If you tried to add passing notes between every scale tone, you might lose the whole-tone sound, ending up with nothing more than a chromatic scale.

Am7

T 5 5 4 6 7 4 5 5 8 7 5 10 9 7

A 5 4 6 7 4 5 5 8 7 5 10 9 7

B

D7

Gmaj7

T 8 7 6 7 9 8 7 8 9 8 7 9 10 9 8 10 3 12 12 10 12 9 10 11 10 9

A 7 8 9 8 7 8 9 8 7 9 10 9 8 10 3 12 12 10 12 9 10 11 10 9

B

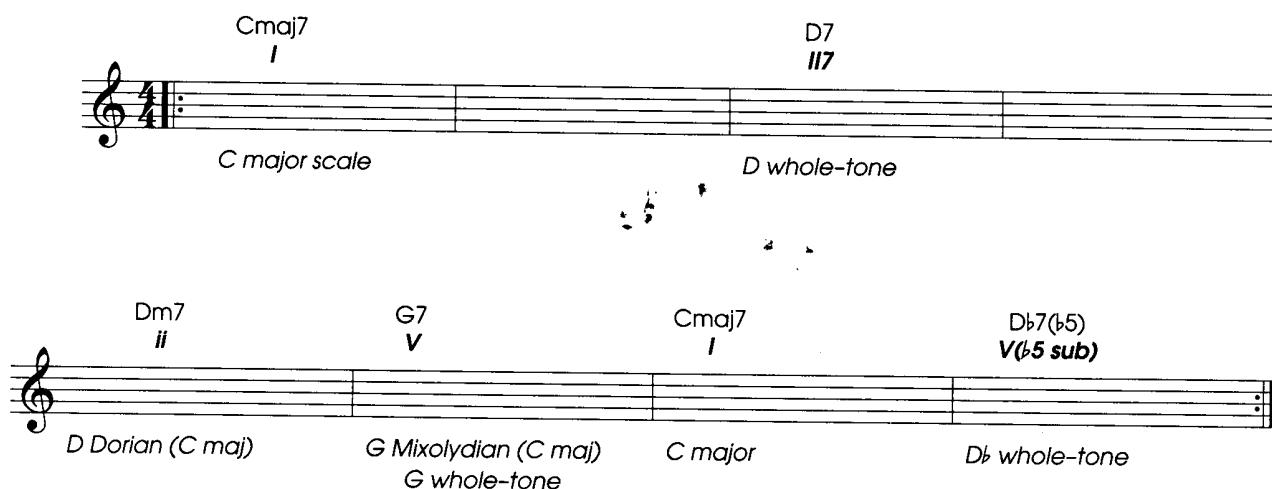
## Using the Whole-Tone Over the II7

Another popular location for using the whole-tone is over the II7. The II7 is a very common chord used in hundreds of jazz, bossa nova, and pop tunes. Tunes such as "The Girl From Ipanema" and "Take the A Train" use a II7 as a primary chord in the progression. Called a secondary dominant, the II7 is a ii (minor 7th) changed to dominant. In many instances, it doesn't resolve in the same way as a V chord but is still a candidate for an altered scale such as whole-tone. In fact, the whole-tone and melodic minor (up a 5th) are the two scales of choice for the II7.

### Example 54: II7 Progression Practice Track

Here's a short eight-bar progression featuring the II7 in bars 3 and 4. I've also included a flat-five substitute (D♭7(b5) for G7) in bar 8. Also shown are suggested scales.

The CD practice track for this progression is a bossa nova feel in a medium tempo. Don't feel obligated to play the whole-tone for the entire bar (or two). You can switch between the basic scale and whole-tone if you like. For example: for D7, use either D whole-tone or D Mixolydian (G major).



Cmaj7                              D7  
I                                    II7

C major scale                      D whole-tone

Dm7                              G7                              Cmaj7                              D♭7(b5)  
II                                    V                                    I                                    V(b5 sub)

D Dorian (C maj)                      G whole-tone                      C major                              D♭ whole-tone

 **Example 55: II7 Progression Solo #1**

Now for a few examples of solos over the II7 progression. Again, just start with easy rhythms while placing more emphasis on the melody. I've included some favorite melodic ideas and a few intervallic licks not only for the whole-tone but also over the maj7 and m7 scales.

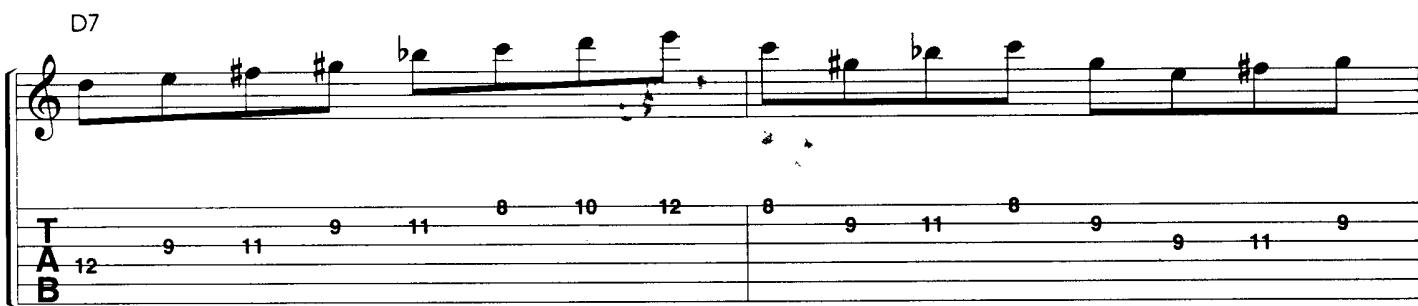
The first one was written using easy-going 8th notes and has several classic jazz motifs.

Cmaj7



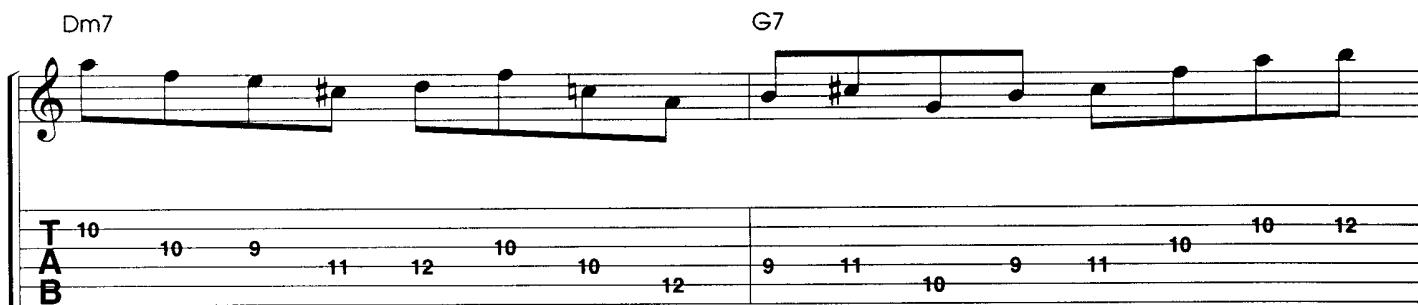
T  
A  
B

D7



T  
A  
B

Dm7 G7



T  
A  
B

Cmaj7 D♭7(b5) Cmaj7



T  
A  
B

## 59 Example 56: II7 Progression Solo #2

Next is a more aggressive and challenging 16th-note solo over the same progression, demonstrating the use of the same sequence with different scales. The opening Cmaj7 riff is based on a six-note sequence along with a few variations. The sequence is repeated in bar 3 (beat 2) with the D whole-tone. Bars 5 through 7 feature a ii-V-I line in C that includes an interesting whole-tone line over the G7. It's a G whole-tone played with alternating 4th intervals above each scale tone. The line retains a whole-tone flavor even though the upper intervals are out of the scale. In fact, these upper intervals form the other (G#) whole-tone scale. It could even be labeled a chromatic scale since all 12 tones as sounded. The solo finishes with a whole-tone line, which is made up of augmented triads moving up b5 intervals.

Cmaj7

T A B

D7

T A B

Dm7

T A B

G7

T A B

Cmaj7

D♭7(b5)

T A B

Cmaj7

## UNIT 15: Modern Uses of the Whole-Tone—Static Chords

Let's explore the use of whole-tone in a few contemporary situations. When used in a modern jazz and fusion style, the whole-tone is sometimes played over static chords. Static dominant progressions stand out as a popular context for applying the scale.

Whole-tone sounds can be slightly hinted at or highly emphasized in a solo. Again, an important aspect to consider is the style of music you are playing. Don't try to play a hip whole-tone lick in the middle of a traditional blues solo just because you happen to be on your favorite dominant chord. Also, with this idea, take care not to falsely signal a resolution to another chord (A7 resolving to D, for example).

### 60 Example 57

The first example is a nice little swing/bebop line for a static B♭7. It demonstrates hinting at the whole-tone for effect (second bar). The line then flows back into a simple B♭7 sounding idea in the third bar to finish the lick.

Musical notation for Example 57. The top staff shows a treble clef, 4/4 time, and a B♭7 chord above the staff. The bottom staff shows a guitar neck with three strings labeled T, A, and B. The first two bars show a whole-tone scale (B♭, C, D, E♭, F, G) being hinted at. The third bar returns to a simple B♭7 sound.

Continuation of the musical notation for Example 57. The top staff shows a treble clef and a continuation of the solo line. The bottom staff shows a guitar neck with three strings labeled T, A, and B. The sequence continues from the previous example, maintaining the whole-tone hints and returning to a simple B♭7 sound.

### 61 Example 58

The next example is a basic whole-tone sequence, but since the nature of it emphasizes the 3rd and b7th, it works well over a static A7.

Musical notation for Example 58. The top staff shows a treble clef, 4/4 time, and an A7 chord above the staff. The bottom staff shows a guitar neck with three strings labeled T, A, and B. The sequence emphasizes the 3rd and b7th notes of the whole-tone scale (A, B, C, D, E, F♯, G) over an A7 chord.

### 62 Example 59

Here's a hip little line good for either a static or functioning A7. It combines the whole-tone with a few augmented shapes.

A7

T  
A  
B

### 63 Example 60

Only in a jazz-style blues groove can you get away with a lick like this next example. Starting with a bluesy opening line for C7, we switch to a whole-tone phrase in the second bar.

C7

T  
A  
B

T  
A  
B

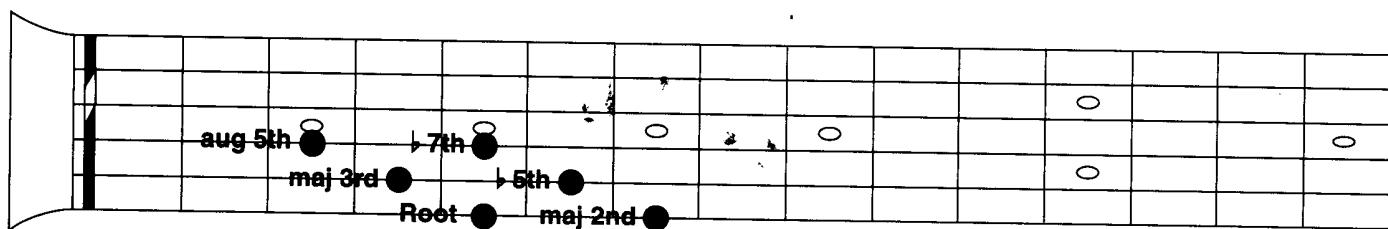
## UNIT 16: The Fingerboard – Symmetrical Scales Geometric Playground

The guitar fingerboard is a magic place when it comes to symmetrical scales. Because the fingerboard is laid out in its own symmetrical form, it's a natural breeding place for an unlimited amount of ideas with the diminished and whole-tone scales. Short melodies can be invented and moved and repeated in any number of intervallic directions, forming long interesting lines. Visual shapes can also be explored.

As far as the whole-tone scale goes, it's important to visualize and learn the various intervals that are present within the scale. Whole-steps, major 3rds, flat 5ths, augmented 5ths, and m7ths comprise the whole-tone scale. Below is a fingerboard graphic showing the intervals built from the root in a whole-tone scale beginning on A.

### Example 61A

What's interesting is the fact that no matter what note in the scale you start on, you can still play any of the intervals up or down from that note and still remain in the whole-tone scale. (Don't forget that guitarists need to make the proper adjustments to the intervals when using the 2nd (B) string and subsequently the 1st (E) due to the tuning difference.)



### Example 61B: Whole-Tone Interval Study

Here's a little exercise/lick to help you learn the intervals. A good goal is to learn this exercise with the repeating root not only on the 6th string, as in the example above, but also on the 3rd, 4th, and 5th strings. It can also be played on only two strings for a finger-stretching wake-up exercise.

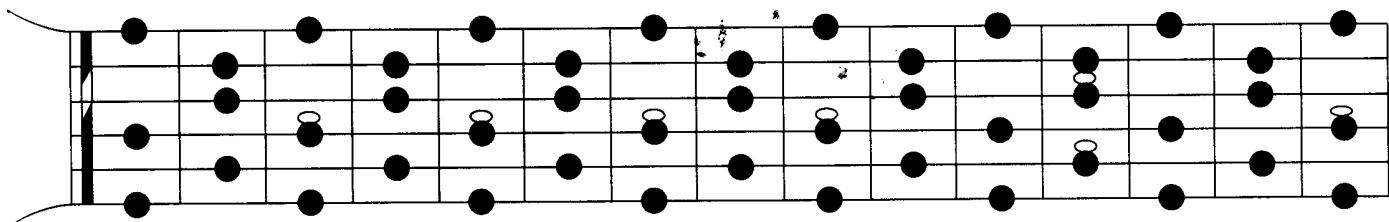
Another cool coincidence regarding the whole-tone's intervals is that you can stack them. For example, if you played a stack of several major 3rd intervals, one on top of the other, the notes would still stay within the scale. (This would actually be the augmented arpeggio we learned earlier.) If we stacked  $\flat 5$  intervals or augmented 5ths, we would get the same result: all notes will still be in the scale. What would happen if we stacked several major 2nd intervals? We'd end up with the whole-tone scale, of course!

One very important thing about intervals to remember—they are music's version of measurements and are the same descending as ascending. The shapes stay exactly the same. An augmented 5th above C, for example, is G $\sharp$ , but an augmented 5th below C is E. Or a major 3rd above A is C $\sharp$  while a major 3rd below A is F. Only the  $\flat 5$  interval, which is the absolute midpoint of an octave, produces the same note either above or below a given tone. A  $\flat 5$ th above and below D are both A $\flat$ . Be sure you understand the workings of intervals and how they lay on the fingerboard.

What does all of this have to do with improvising with the whole-tone scale? SHAPES! Because of the fingerboard's visual geometry, guitar players can invent melody lines with this scale that no other instrumentalist could ever think of.

### **Example 61C: Whole-Tone Fingerboard**

Look at the weird-looking fingerboard graphic below. It's the entire fingerboard showing the whole-tone scale on every fret, every string. Just look at the number of geometric shapes you can spot right away. Look at it in terms of chords as well as single-note ideas.

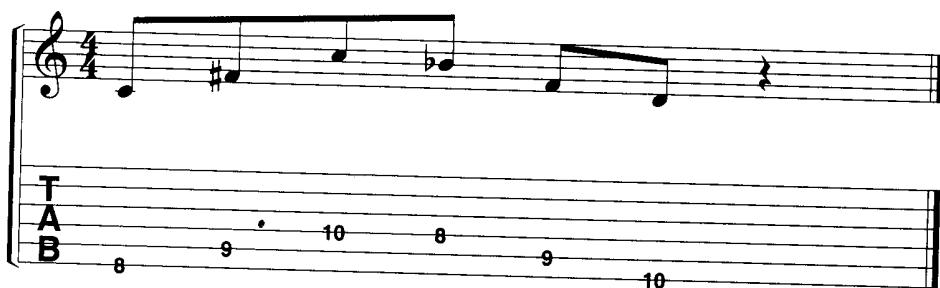


A lot of good players have come up with unique ideas looking at the fingerboard this way. They've found unusual harmonized chord voicings, arpeggios, and a wealth of single-note ideas. Try it yourself. Just take a pencil and circle some shapes or patterns. Then play them.

One pattern that jumped out at me when studying this whole-tone fingerboard is the many X shapes. I worked out several lines by playing the X's and moving them around the fingerboard.

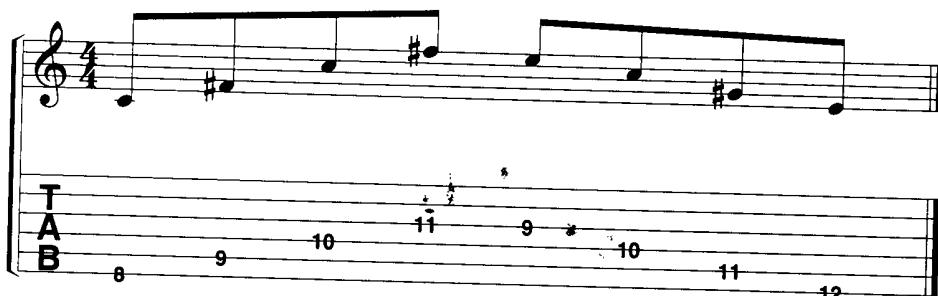
### Example 62A: Three-String Whole-Tone X Shape

The next example shows one way you can play a three-string X shape.



### **Example 62B: Four-String Whole-Tone X Shape**

Or how about a four-string version?



### Example 63

Next are some of my favorite lines using these X shapes. Using the same six-note X shape as Example 62A, this first line uses the shape repeating up and across the fingerboard in major 3rds. Once you reach the top string, the pattern reverses and descends back to low C.




**67 Example 64**

This one is an eight-note X shape that is also repeated up major 3rds. It requires a tricky picking pattern. Begin with an upstroke on the first note and alternate-pick the following seven notes. This completes one shape. Before moving on, practice this first eight-note pattern several times to get the picking down.

The image shows a musical score for guitar. The top staff is in treble clef and 4/4 time, featuring a sixteenth-note pattern. The bottom staff is in bass clef and 4/4 time, showing fingerings for notes A through E. The notes correspond to the following fingerings:

Finger	Notes
A	8 8 10 10 7 8 7 9 9
B	10 9 8 9 9 7 8 7 6 7 7 7 5 7 8

**68 Example 65**

Just to see if we can actually play it, here's a four-string X-shape line. It's difficult to pick due to the rapid string changes and tough on the left hand because of the stretches. But go for it anyway!

T A B

5	6	7	8	6	7	8	6	7	8	9	10	7	8	10	11	9	10	10	11	12
---	---	---	---	---	---	---	---	---	---	---	----	---	---	----	----	---	----	----	----	----

Here's a quick story: I showed a similar whole-tone graphic fingerboard to a student at GIT one day when we were working on whole-tone ideas. The student took one look at the neck and said, "Cool!" and immediately played the next example without missing a note. He just watched the neck diagram and played. I was amazed.

**[69] Example 66: Geometric F Whole-Tone Super-Lick**

This line is simply the whole steps on each string set moving up the fingerboard. Start with the F to G on the 6th string, the Eb to F on the 4th string, and then the F to G on the 1st string. Then move up a fret and do the same with the 5th, 3rd, and 2nd strings. Now move up another fret and play the same 12-note sequence again. It's a great string-skipping exercise. You can either learn it from the music and tab below or look back at the neck diagram and play it visually.

Sure, this is a bit of an extreme example of the kinds of ideas that can be discovered geometrically, but I hope it will inspire you to come up with your own inventions.

The image shows two staves of musical notation for guitar. The top staff is in common time (indicated by a '4') and features a treble clef. It consists of six measures of music, each with a sixteenth-note pattern. The bottom staff is a tablature staff, showing the frets and strings for each measure. The tablature uses letters T, A, and B above the staff to indicate specific notes or positions. Measure 1 starts at the 12th fret of the B string. Measures 2 and 3 continue the sixteenth-note pattern. Measures 4 through 6 show a more complex sequence of notes across the strings.

## UNIT 17: Diminished and Whole-Tone Lines

We included this last section to show you a few more of my favorite diminished and whole-tone licks and riffs. Most can be used in any situation that calls for a particular scale, from static chords to II-V-I progressions. Some are written without chord symbols because they can be played over many different chords.

### Example 67

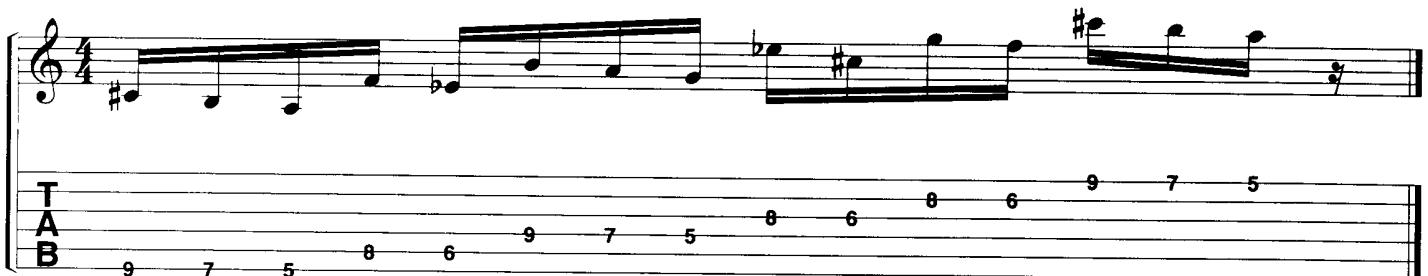
C7



We'll kick things off with a good C7 line using the diminished scale. Beginning with a bebop phrase, it winds through the C dominant diminished scale before finishing up with a blues riff.

### Example 68A: Ascending A Whole-Tone Pattern Reversed

The next two whole-tone licks sound surprisingly cool for how simple they are. I learned them from a student who was trying to work out the whole-tone pattern but didn't understand the fingerboard diagram I showed him. Going up the scale, he played the pattern reversed starting with the highest note on every string. It sounded great! The following lines are simply the first whole-tone pattern (Example 41a) with the notes on each string played in reverse order. Check 'em out!



### Example 68B: Descending A Whole-Tone Pattern Reversed



### Example 69

Next is a good string-skipping whole-tone line using augmented 5th intervals moving up b5ths. But, surprisingly, this line is also in the diminished scale too. Play it over A7, thinking of it as a whole-tone. Play it over B7, thinking of it as diminished. You can also turn this lick into a tricky chops-building exercise by repeating it several times. (You get extra credit for moving it up or down two frets every time for the whole-tone and three frets for the diminished.)

The musical example consists of a treble clef staff with sixteenth-note patterns and a corresponding guitar neck diagram below it. The guitar neck has three strings labeled T (Top), A (Middle), and B (Bottom). Fingerings are indicated above the strings: 4, 6, 4, 7, 4, 6; 7, 4; 6, 8.

### Example 70

As with any scale, it's a common technique to add passing or neighbor tones between scale tones. Passing tones can smooth out and extend whole-tone ideas. The secret is to add only a few to retain the sound of the scale. If you add too many, things might start to sound overly chromatic. The next line is a short example of adding a few passing notes to a whole-tone melody. It sounds great over G7, but also try it over Eb7, B7, and, what the heck, over all six dominants in this whole-tone key!

G7(5)

The musical example consists of a treble clef staff with sixteenth-note patterns and a corresponding guitar neck diagram below it. The guitar neck has three strings labeled T (Top), A (Middle), and B (Bottom). Fingerings are indicated above the strings: 7, 6, 5; 6, 4, 4, 6, 6, 5, 4; 6, 5, 4, 5, 6.

### **74 Example 71**

Example 71 demonstrates rhythmic syncopation added to a diminished scale phrase. Breaking up lines like this one, especially sequences, can add a lot of musical energy and attitude. Learn the basic sequence first, which starts on the second note of the first bar. It ascends to high Eb before reversing back down to the final bar. Then figure out the rhythms. Once you understand them, you'll be able to add the same syncopation wherever you want in the sequence.

C7

The staff shows a sequence of notes on the guitar neck. The notes are: 10, 8, 10, 10, 11, 10, 8, 8, 9, 8, 11, 11, 12, 11, 9, 10, 11, 10, 8, 8, 9, 8, 11, 11, 10, 8. The staff ends with a fermata over the 11th fret on the A string.

The staff shows a sequence of notes on the guitar neck. The notes are: 8, 7, 10, 9, 8, 11, 11, 10, 8, 8, 8, 7, 10, 10, 8, 10. The staff ends with a fermata over the 10th fret on the A string.

### **75 Example 72**

I had to throw in one of my secret octave-displaced whole-tone lines. It's just the notes of the scale played up in order (starting on C) but with certain notes played an octave higher. Once we hit the high D, we go back down the same way. There are a few ways to go about picking this line. It can be alternate-picked, but start with an upstroke on the low C. Another approach is to begin with two downstrokes on the C and D, then one upstroke on the high E, then one downstroke on the F#, and then one upstroke on the high G#. Then repeat: down, down, up, down, up, etc.

The staff shows a sequence of notes on the guitar neck. The notes are: 1, 3, 2, 1, 2, 1, 3, 4, 3, 1, 2, 1, 2, 3, 1. The staff ends with a fermata over the 10th fret on the A string.

### Example 73

The next example demonstrates how you can use the previous line in a ii-V-I progression. Following the Dm7 melody in the first bar, the octave-displaced whole-tone begins on the low G. This time, after the first five notes are played (up to Eb), the pattern is moved up a whole step (two frets) and played again beginning on low A. The line resolves on the 3rd of Cmaj7.

### Example 74

Applying the same five-note octave-displaced sequence to the diminished scale, the next line is for a ii-V-I in Bb. After the Cm7 bar, which is a nice jazz descending phrase, the octave-displaced Gb diminished begins with the last two notes of the first bar (C to D). You can also think of it as five-note shapes played three times with the first starting on C (second-to-last note in bar 1), the next on A (fourth note of bar 2), and the next on F# (ninth note in bar 2).

### Example 75

Finally, here's a couple of what you might call speed licks for both the whole-tone and diminished scales. The first starts as an ascending whole-tone arpeggio sequence. But when it reaches the 2nd string, we take a right turn and head up the neck, taking advantage of the major-3rd tuning between the G and B strings. You can continue up the two strings as long and far as you want. Also, try changing the rhythms while you play it. Move all the notes to the right, placing the first note (A) on the first downbeat of bar 2. Or play the line as triplets.

A7( $\frac{5}{4}$ )

etc.

### Example 76

The diminished-speed version takes advantage of the major-6th tuning between the 4th and 2nd strings and between the 3rd and 1st. The line requires a lot of string-skipping but makes a burning ascending (or descending) diminished lick. In a solo, you might only need to play as little as a single bar or so to get the point across.

E7( $\frac{9}{4}$ )

## **Final Notes**

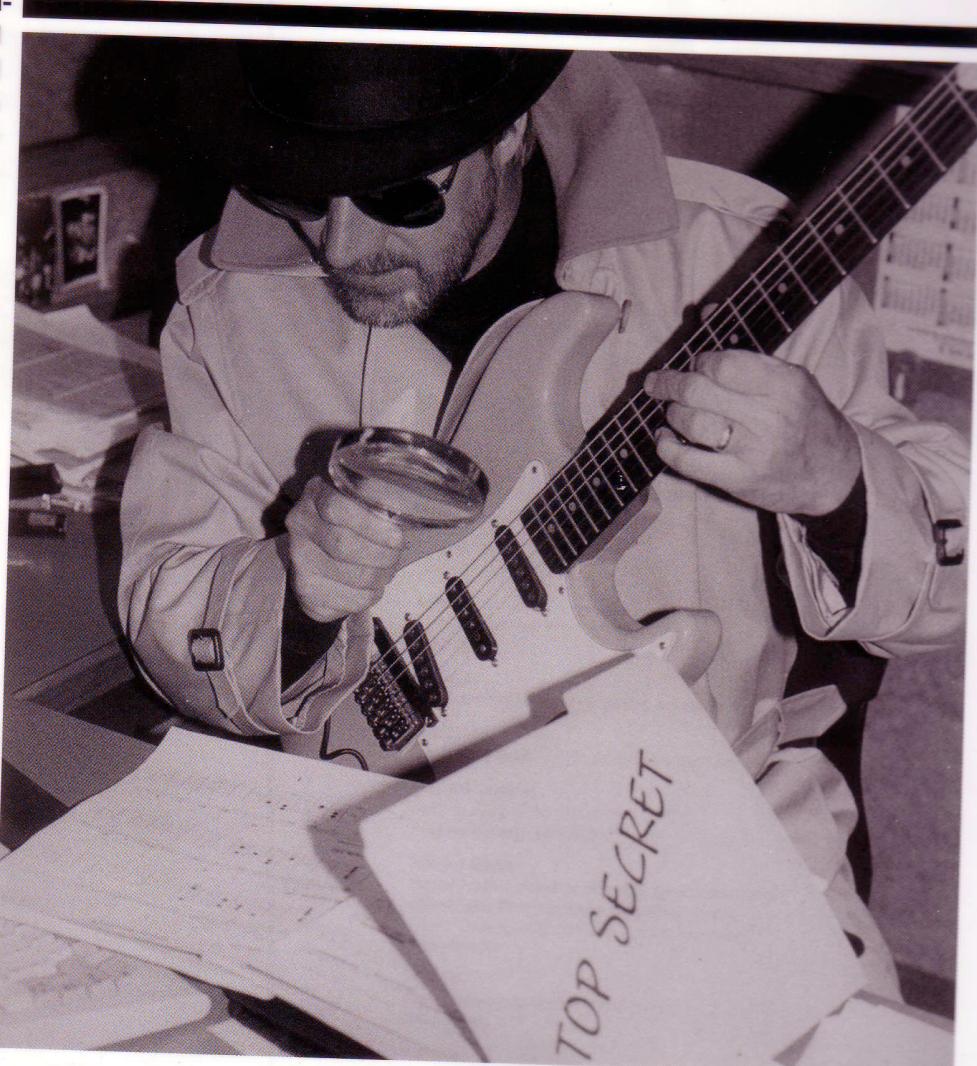
Thank you for checking out this exploration of the diminished and whole-tone scales. I hope you've found some ideas that can benefit your playing. Don't feel that you must conquer everything in this book to be a good player. Choose a limited number of patterns, lines, and concepts and work hard on them. Then, most important, get them into your playing as soon as possible. Not many players (including me) can use these scales, as well as other scales and their chords, work in music. And when practice time is done for the day, put on some recordings of your favorite players. Listen carefully for how they use these sounds. The more experience you have playing (and hearing) whole-tone and diminished ideas, the sooner you will be able to recognize and understand how great players use them.

—Don Mock

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