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**TOSIN ABASI**  
performs with  
progressive-  
metal act  
*Animals as  
Leaders*. They  
have released  
two albums:  
*Animals as  
Leaders* and,  
*Weightless*,  
available on  
Prosthetic  
Records.



JIMMY HUBBARD

# ANIMAL INSTINCT

Getting a feel for picking techniques  
with the track “Somnarium”

CHAPTER

1

## HELLO EVERYONE AND

welcome to *Prog-Gnosis*, my *Guitar World* instructional DVD. Over these 13 lessons, I'll be demonstrating some of the techniques and approaches I rely on in the writing and performing of the music I play with my band, Animals as Leaders. Hopefully, you will find these ideas useful in your own musical endeavors.

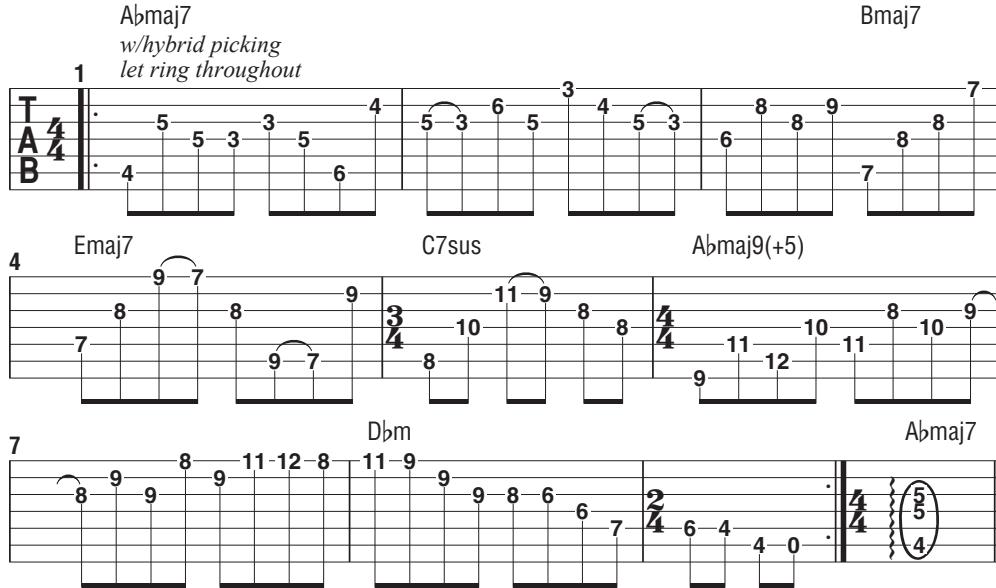
I'd like to begin with a look at some excerpts from the song “Somnarium,” from the Animals as Leaders album *Weightless*. The majority of the music I play with the group is performed on an eight-string guitar, tuned (low to high) E B E A D G B E. In the examples included here, the parts have been arranged for seven-string guitar (low to high, B E A D G B E). If you have only a six-string, fear not, as only one note—the low Ab at the beginning of bar 6 of **FIGURE 1**—is played on the seventh string. On a six-string, this note can be played at the fourth fret on the sixth string, though a quick shift up to ninth position will be necessary to play the notes that follow.

The opening riff to this song was written as an etude that I could use to practice my *hybrid picking*—the pick-hand technique that combines flatpicking and fingerpicking. Throughout bars 1–5 of **FIGURE 1**, I pick the lowest note of each figure with the pick and follow it with fingerpicking, using my middle finger, ring finger and pinkie to sound the notes on the higher strings. You'll find some challenging pick-hand movement through this section as well as nice harmony as you shift from one chord form to the next.

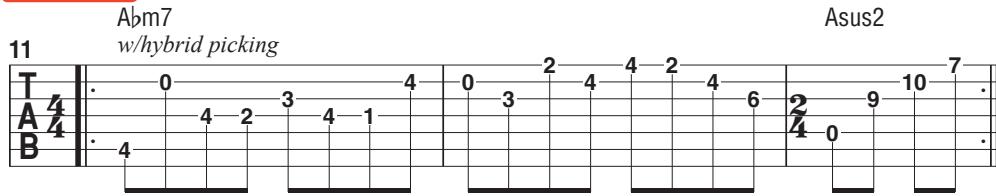
In bar 6, outlining the Abmaj9(+5) chord, I switch to alternating between a flatpicked and a fingerpicked note, and then I wrap up the phrase in bars 8 and 9 with a combination of *alternate* (down-up) and *economy* picking. Economy picking, also known as “rest-stroke” picking, entails the use of the same pick direction when moving from string to string. In bar 8, there are two areas where three consecutive notes are performed by playing one note at a time on successively lower adjacent strings. This also occurs on two strings in bar 9. For these notes, I use consecutive upstrokes when moving from

Eight-string guitar arranged for seven-string guitar

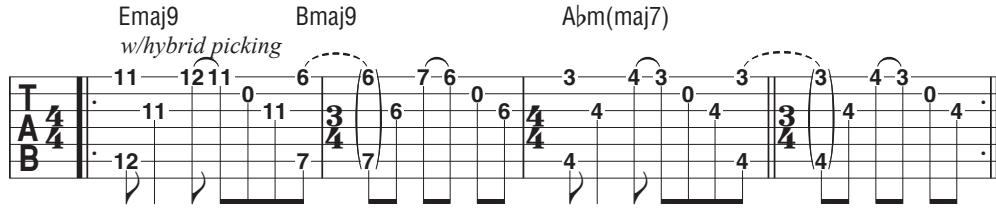
**FIG. 1**



**FIG. 2**



**FIG. 3**



higher to lower strings. Notice also the inclusion of a single bar of 3/4 in bar 5 alongside a basic 4/4 feel.

The riff in **FIGURE 2** follows immediately on the heels of **FIGURE 1**, entering at 0:29 seconds into the track. I use the same approach but shift from Ab major to Ab minor. Using a similar motif but transforming it to a different tonality is a great way to expand on any musical idea. This figure is again performed with a combination of hybrid and economy picking.

The last riff included here, illustrated in **FIGURE 3**, begins at 1:39, and I consider it to be the “hook” of the song in that it is repeated many times. Harmonically, I begin by moving maj9 voicings down the neck, but I wrap it up with a slight twist, incorporating m(maj7). Also, the rhythmic syncopation of the figure causes it to sound like the beat is turning around with each successive phrase, but, in fact, I think of it as alternating bars of 4/4 and 3/4.

# ECONOMIES OF SCALE

Making effective use of economy picking,  
and how I play my solos in “Somnarium”

CHAPTER

2

 IN THIS CHAPTER, I'll show you what I play for two of the solo sections in “Somnarium.”

These solos are played over the parts illustrated in the previous chapter.

The majority of the music I play with AAL is performed on an eight-string guitar, tuned (low to high) E B E A D G B E. In the examples included here, the parts have been arranged for seven-string guitar (low to high, B E A D G B E). If you have only a six-string, the great majority of what is written here can be played on it. **FIGURE 2**, for example, depicts my primary solo on the song, and there is only one note that is played on the seventh string.

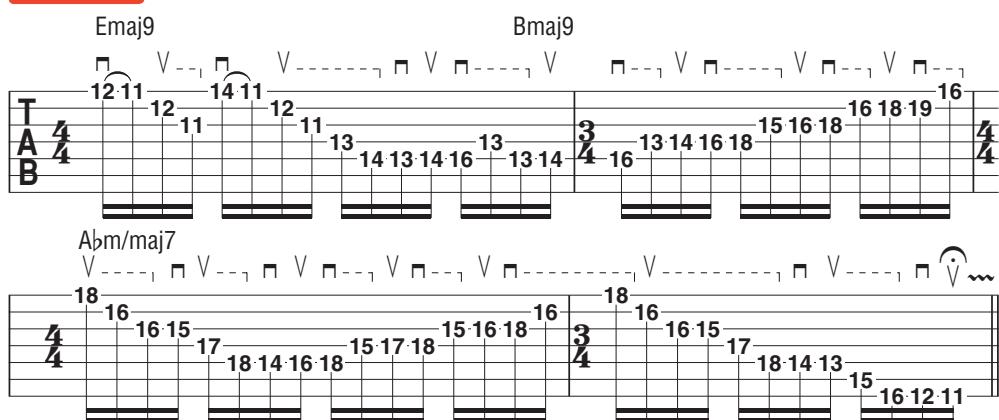
**FIGURE 1** is an arpeggio-based pattern that I play over the “chorus” of “Somnarium,” specifically the part that switches repeatedly from 4/4 to 3/4 (and which may also be thought of as consecutive bars of 7/4). The pattern moves harmonically from Emaj9 to Bmaj9 to Abmaj7. I begin over Emaj9 with straight descending arpeggio figures that are played in groups of steady 16th notes. By the second half of beat two in bar 1, I've switched to a long ascending line that is performed using *economy picking*. Bar 3 is again split between arpeggios and ascending figures, followed in bar 4 by a long descending arpeggio across the first through the seventh strings.

The descending arpeggios used to start this riff are executed with *reverse sweeps*, as the pick is dragged in an upward motion from higher to lower strings. I then use economy picking to play the subsequent ascending line. Economy picking is best described as a technique wherein the same pick direction is used to sound notes on adjacent strings: when moving from a lower to a higher string, the last note on the lower string and the first note on the higher string are each picked with a downstroke. When moving from a higher to lower string, consecutive upstrokes are used in a similar manner. I've found the technique invaluable for performing challenging figures with speed and precision.

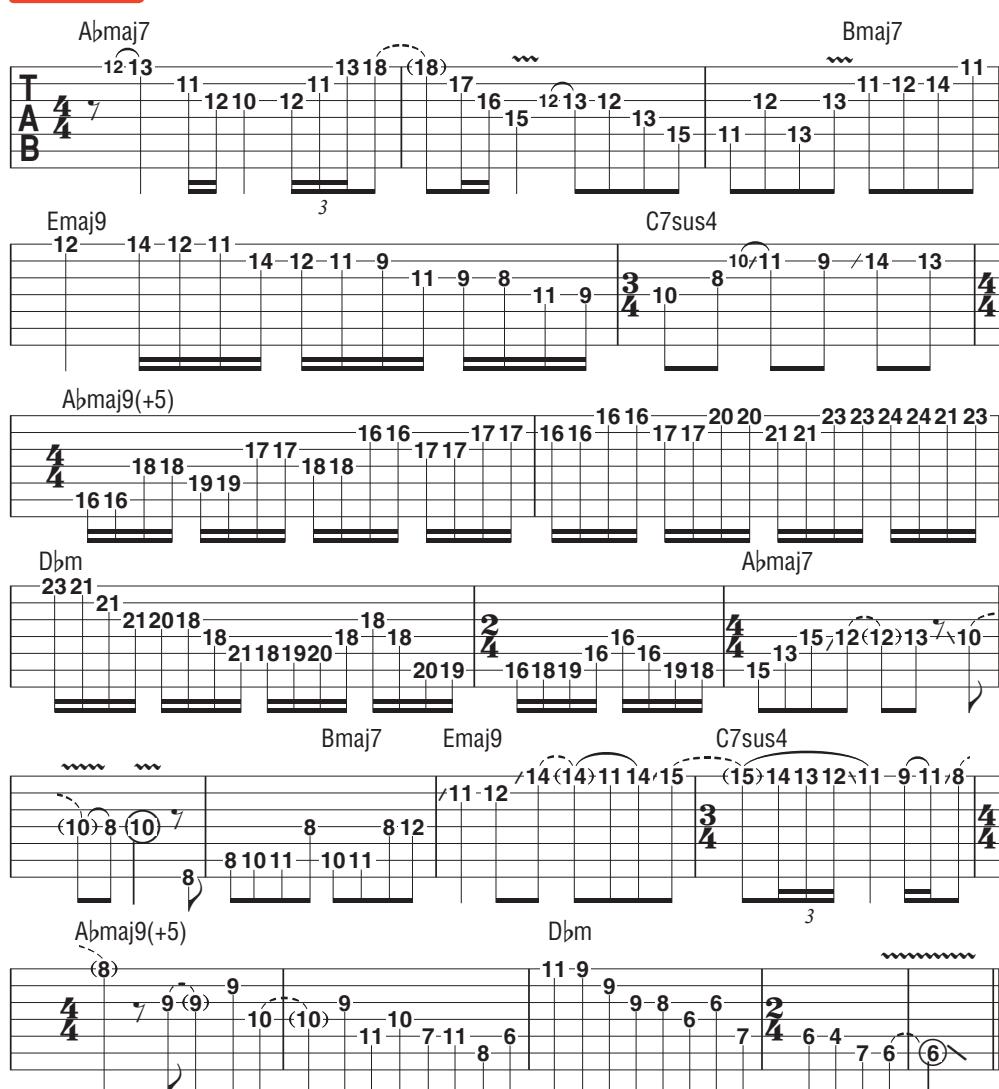
**FIGURE 2** illustrates the main solo, which is played over the song's opening—and primary—rhythm part. I use arpeggios along with “linear” excursions, and I stick closely to the Abmaj7-Bmaj7-Emaj7-C7sus4-Abmaj9+5-Dbm chord progression. Every lick sits squarely over the accompanying chord. Starting in bar 6, I incorporate a “double-picking” technique, wherein each note is picked twice within a steady rhythm of 16th notes.

Eight-string gtr. arr. for seven-string gtr. (low to high, B E A D G B E)

**FIG. 1**



**FIG. 2**



# INTER-PLANETARY EXPLORATION

## How to play the outro guitar solo in “Earth Departure”

CHAPTER

3

 “EARTH DEPARTURE” IS one of the most adventurous tunes on the Animals as Leaders album *Weightless*. The song features some very intense, complex figures that require extremely tight band interplay. To my way of thinking, much of the song is in straight 4/4 time, but it doesn’t sound like it because many of the rhythms are based on unusual 16th-note syncopations and odd-length phrases. In this chapter, I’ll analyze the song’s outro guitar solo, which is one of my favorite solos on the record.

As you know, the majority of the music I play with AAL is performed on an eight-string guitar, tuned (low to high) E B E A D G B E. In the example included here, the solo has been arranged for seven-string guitar (B E A D G B E), but a six-string will work just as well, as there is only one note—the first note of beat four in bar 6—that is played on the seventh string.

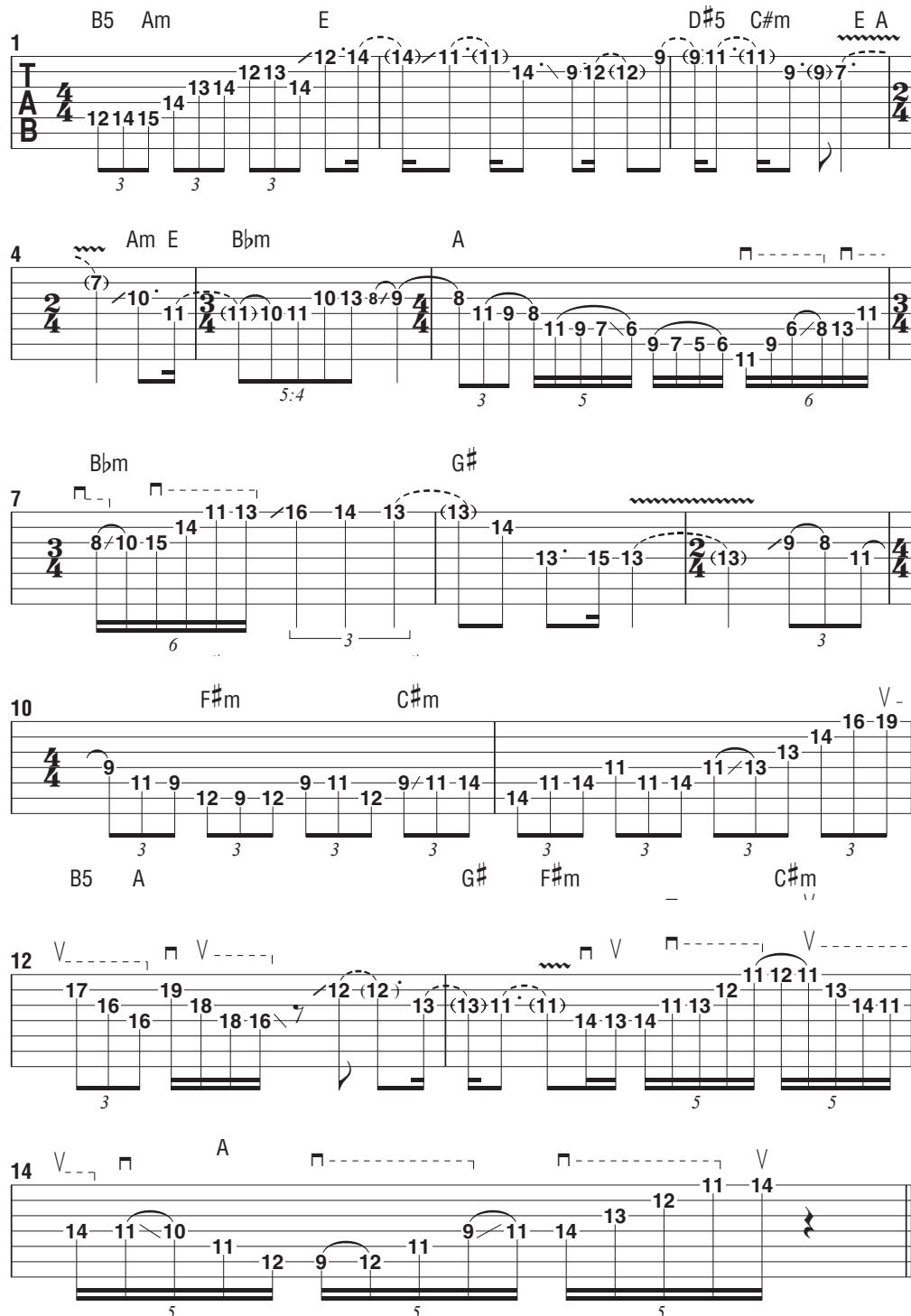
**FIGURE 1** illustrates the entire 14-bar outro solo. Tonally, the solo revolves around an E major/C♯ minor axis, but there are a few other elements thrown in that shake up the harmonic environment. I begin the solo by playing over a quick B5-A chord change, followed by E, starting with an eighth-note triplet line based on A melodic minor (A B C D E F♯ G♯). When I get to the E chord, I switch to the E major scale (E F♯ G♯ A B C♯ D♯), which, when played over the subsequent C♯m chord in bar 3, can also be analyzed as C♯ Aeolian, or C♯ natural minor (C♯ D♯ E F♯ G♯ A B). Notice the “staggered”-sounding dotted-eighth-/16th-note rhythm of the solo lines in bars 2–4.

Bar 4 switches to 2/4 time, followed by a single bar of 3/4, a bar of 4/4, two bars of 3/4 and another bar of 2/4. The solo then concludes with five bars of 4/4.

In bar 5, I play a short line over B♭m, followed by a descending line, primarily performed with pull-offs and finger slides, played over A but based on the E Lydian mode (E F♯ G♯ A♯ B C♯ D♯). At the end of this bar, I begin a series of ascending sweeps based on the B♭ minor pentatonic scale (B♭ D♭ E♭ F A♭), performed by dragging the pick across the strings in a single downstroke.

Eight-string guitar arranged for seven-string guitar (low to high, B E A D G B E)

**FIG. 1**



# DOUBLE UP

## Double picking, and the first solo in “An Infinite Regression”



**IN THIS CHAPTER,** I'd like to talk about a cool, useful technique I sometimes use called “double picking,” which involves repeating each note in a melody twice using alternate (down-up) picking. A good example of this technique can be found in the first solo I play in “An Infinite Regression,” from *Weightless* (see **FIGURE 1**).

I begin over an F#m chord and play an F#sus2 arpeggio across bars 1 and 2, sticking with a rhythm of straight 16th notes while double-picking each different note. This creates a melody-within-a-melody effect, as your ear hears a slower eighth-note idea within the 16th-note rhythm, almost as if you were tremolo picking.

In bars 3 and 4, I change the fretboard shape slightly to acknowledge the underlying D chord, with brief use of the sharp four, G#, which I immediately *resolve* up a half step, to A, the fifth of D. I use the same approach in bars 5 and 6 over Bm, but here I truncate the idea by starting on the B root note on the A string’s 14th fret before moving down and then back up again.

Across bars 7 and 8, I play a quick descending-ascending line over the five (V) chord, C#, using notes from the C# Phrygian-dominant mode (C# D E# F# G# A B), which is the fifth mode of F# harmonic minor (F# G# A B C# D E#).

I switch to much simpler and more melodic lines in bars 9–14, outlining the same F#m-D-Bm chord progression of bars 1–6. At bar 15, however, I play a fast C# Phrygian-dominant descending line again, using 16th-note triplets, quintuplets and 16th notes.

The solo wraps up with a restatement of the “melodic” approach of bars 9–14, but at bar 21, I introduce a new chord to the progression, Eb, which affords a shift in harmonic content to what is already a “shifty” harmonic environment. I finish up in bars 31 and 32 with straight eighth notes and use descending fourths to outline the B-to-C# chordal movement.

Overall, this is a challenging solo to play up to speed, so I encourage you to take it one bar at a time and gradually work it up to tempo. Once you have the shapes down, you’ll find that it’s not as difficult to play as it may seem.

Eight-string guitar arranged for seven-string guitar (low to high, B E A D G B E)

**FIG. 1** “An Infinite Regression” first solo (beginning at 1:13)

# THUMBS UP

## How to play the thumb-slapped intro to “An Infinite Regression”

 **IN THIS CHAPTER**, I'll show how I play the intro to “An Infinite Regression,” the opening track from *Weightless*. This part features a very unusual and unique “double-thumbing” technique that, I believe, was pioneered by the great jazz bassist Victor Wooten. As usual, all of the licks in this chapter are arranged for seven-string guitar (low to high, B E A D G B E), though I play the part on an eight-string.

For this intro, I use my pick-hand thumb to sound consecutive notes with a downstroke followed by an upstroke, after which I use the index and middle fingers for fingerpicking. Along with the fret-hand tapping that initiates each phrase, the combination of these different techniques lets you devise cool, rhythmically complex and deceptive-sounding riffs like this one.

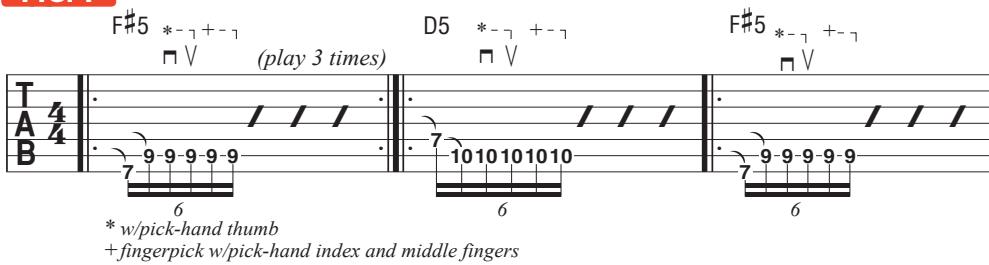
First, I'll illustrate the basic technique I use to play the intro lick in “An Infinite Regression.” As shown in **FIGURE 1**, I begin with an F# root-fifth shape, which I hammer on with my fret hand's index and ring fingers on the seventh and ninth frets of the low B and E strings, respectively. This is followed by the previously mentioned downstroke and upstroke with the pick-hand thumb, sounding the third and fourth notes in the phrase, followed by the pick-hand index and middle fingers sounding the fifth and sixth notes. In bar 2 of **FIGURE 1**, I use the same technique but switch to the notes E and D, played on the seventh fret of the A string and the 10th fret of the low E string, respectively.

Many of you do not own seven-string guitars, so I'd like to show you how to play this lick on a six-string, as illustrated in **FIGURE 2**. On a six-string, begin with a hammer-on to the low E string's second fret, followed by a hammer-on to the fourth fret of the A string. In bar 2, I move over to the second fret of the D string and the fifth fret of the A string. The lighter gauge and thinner tone of these higher strings hinders the power of the lick when played on a six-string guitar, so I suggest picking up a seven-string (or, even better, an eight-string!) to play this tune, as it will sound heavier and more authentic.

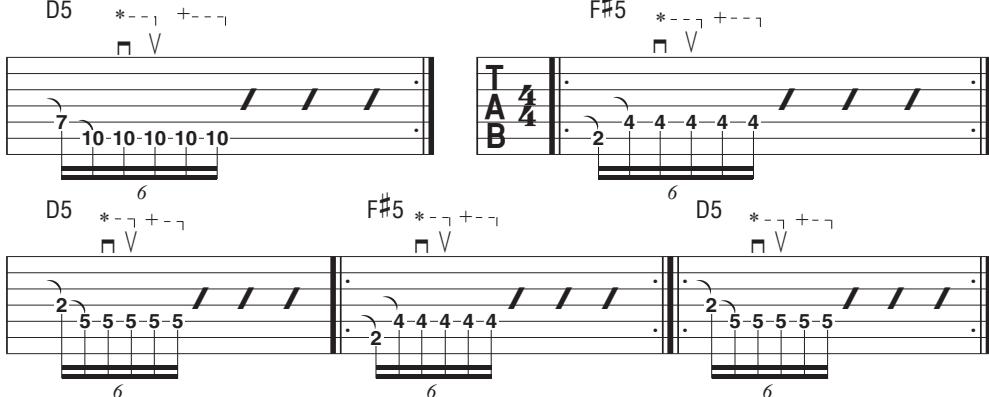
Now let's get to the riff that comes in at 0:17, as shown in **FIGURE 3**. Instead of playing the riffs as sextuplets (six-note figures) as I had done in **FIGURES 1** and **2**, I play it as straight 16th notes, which results in a “two against three” rhythmic feel, with two different melodic shapes consisting of six evenly spaced 16th notes falling across three beats.

Eight-string guitar arranged for seven-string guitar (low to high, B E A D G B E)

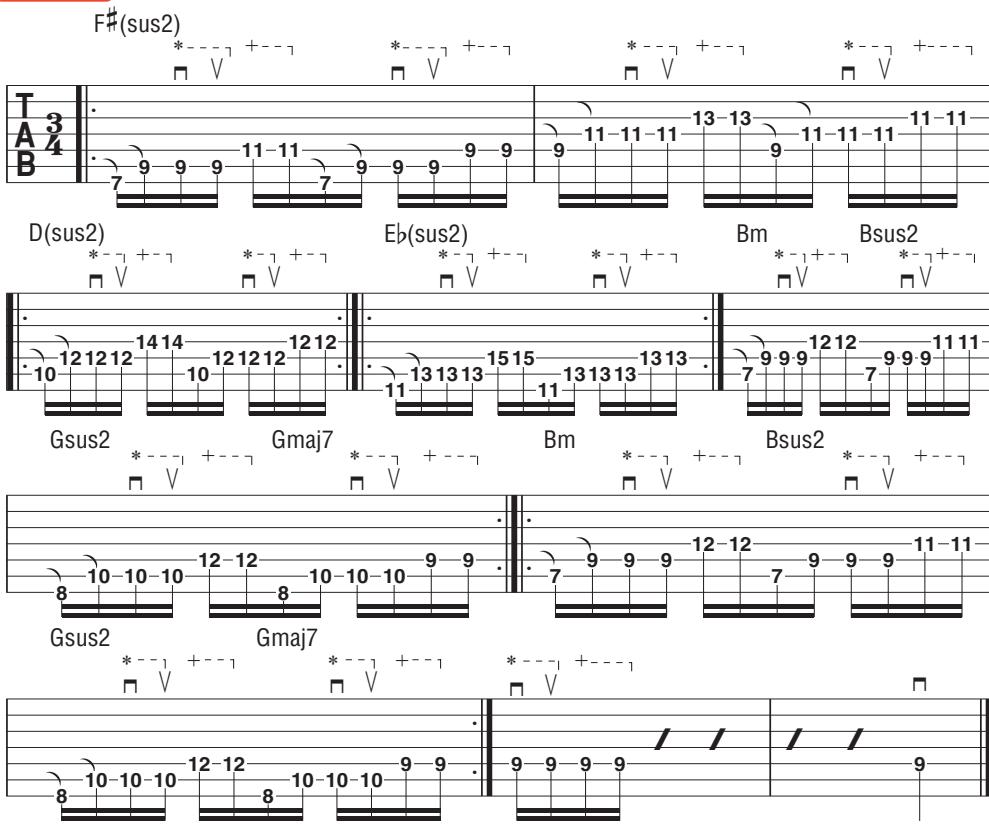
**FIG. 1**



**FIG. 2**



**FIG. 3**



# LUCKY SEVENS

**Making odd meters feel natural, and how to play “Cylindrical Sea”**

CHAPTER

6



**A SIGNATURE ELEMENT** in the songwriting techniques I use with Animals as Leaders is the incorporation of unusual time signatures, also known as *odd meters*. In the quest for fresh-sounding new music, we will often superimpose different meters and/or syncopations on top of one another, a technique explored to great extent by many of today's progressive rock and metal bands, such as Periphery, Dillinger Escape Plan and, of course, Meshuggah.

A good example is the song, "Cylindrical Sea," from *Weightless*. As many of you know, I'm a huge Allan Holdsworth fan, and the sound and approach I use on this song are influenced by him.

For all of the chapters up to this point, I have arranged my eight-string guitar work for seven-string guitar, as few of you have eight-string instruments. When possible, I have also arranged the parts for the universally accepted six-string. In covering "Cylindrical Sea" in this lesson, however, I have written the parts for both eight- and six-string guitar, as the use of the low eighth string, tuned to an E note an octave below the sixth string, is essential to performing these parts correctly.

Illustrated in **FIGURE 1**, the intro consists of a melodic line played on the fifth and fourth strings, supplemented by low root notes on the eighth string. I play this part fingerstyle, using my thumb to sound the lowest notes and my index, middle and ring fingers for the melodic content played on the higher strings. Throughout this section, all notes are allowed to ring as long as possible. Be sure to keep the fingers of both hands properly arched so that clarity is maintained as you move from one chord voicing to the next.

As mentioned, this part is easily adaptable to six-string guitar, as I've done in **FIGURE 2**. All of the notes fretted or sounded on the eighth string have been moved to the sixth string, which is tuned to E but one octave higher. Playing the low root notes on the sixth string makes the fretting slightly more difficult because it requires more careful and precise fingering to avoid accidental muting of notes.

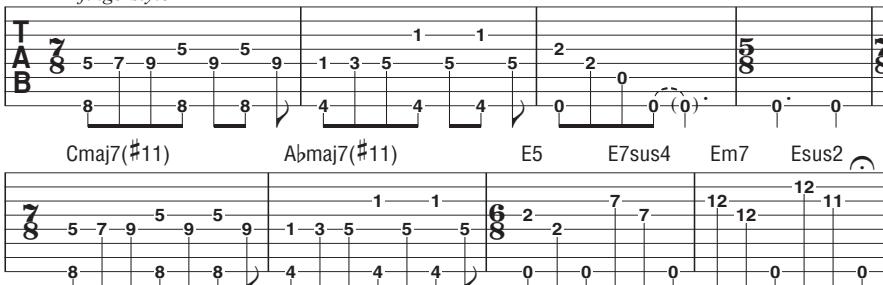
The intro continues with the riff shown in **FIGURE 3**, again arranged for six-string guitar. This section begins the same as **FIGURE 1**, but then moves back to the tonic, Em, followed by different resolutions from Cmaj7#11, first by E/G# and then E major.

The last figure in this chapter utilizes

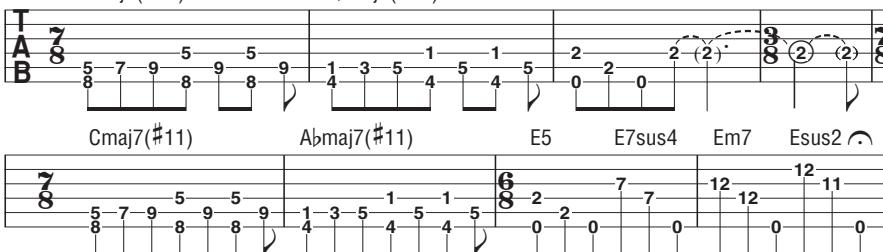
#### **Eight-string guitar (low to high, E B E A D G B E)**

FIG. 1

Cmaj7(#11)  
*let ring throughout  
fingerstyle*



**FIG. 2** six-string version



**FIG. 3**

Cmaj7(#11)

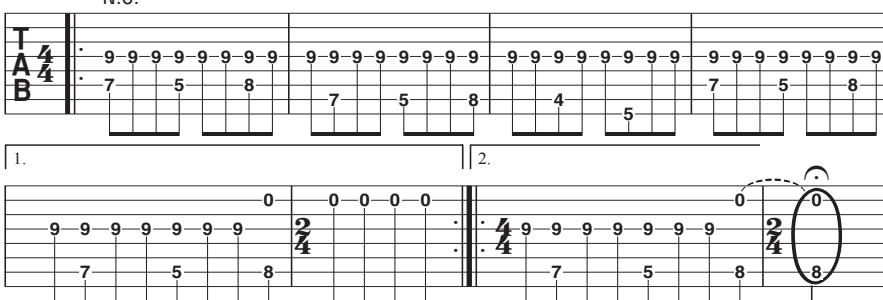
En

## Cmaj7(#11)



**FIG. 4** eight-string guitar

N.G.



a technique similar to standard classical guitar “tremolo” technique, wherein a single note is picked repeatedly and rapidly with different pick-hand fingers. As shown in **FIGURE 4**, the B note on the

fourth string's ninth fret is picked repeatedly while the bass note under it continually changes. This is demonstrated on the eight-string but most if it is playable on a seven-string.

# SIX SENSE

## Playing in 6/4, and the hybrid-picked arpeggios in “David”

CHAPTER

7

 IN THE LAST chapter, I discussed my penchant for employing odd meters in much of the music I write for Animals as Leaders, using the song “Cylindrical Sea” as an example. While “Cylindrical Sea” moves back and forth freely between 7/8, 5/8 and 6/8 time signatures, the idea was not simply to write a tune for the sake of complexity. In fact, I rarely even think about specific meters when constructing a tune. My goal is to create interesting musical compositions without taking an analytical or theoretical approach. Usually, it is only after a song is coming into focus that I will analyze the inner workings of the time signatures and harmonic structure of the chord progressions.

“David,” the last track on *Weightless*, was recorded using a seven-string guitar tuned normally (low to high, B E A D G B E). I think of the song as being in 6/4 time, though one could just as easily reckon it as bars of 4/4 followed by bars of 2/4.

**FIGURE 1** illustrates the opening pattern, which is built from alternating arpeggiated B♭ and D triads played on the top four strings and played eight times. I use *hybrid picking* to play these arpeggios, using a pick to sound all notes on the fourth string and fingerpicking the third and first strings, with the middle finger plucking notes on the third string and the pinkie plucking the high E.

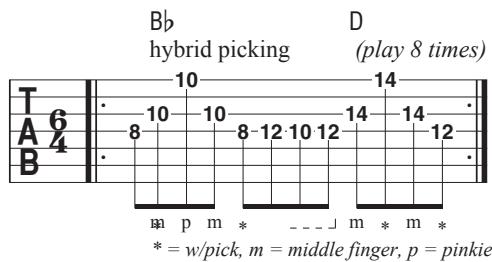
After **FIGURE 1** is played four times, a second guitar enters with the pattern shown in **FIGURE 2**. I use the same hybrid-picking technique to perform the arpeggiated patterns in this riff, and you will notice that I expand on the implied harmony by including the augmented fifth, G♭, in the B♭ triad played across beats one and two. This riff is layered under **FIGURE 1** four times.

At 0:24, the initial guitar drops out as the riff illustrated in **FIGURE 2** is repeated, establishing the start of the next theme in the tune, shown here in **FIGURE 3**. In bar 2, the chord progression moves to the relative minor of B♭, Gm, followed by the augmented five chord, Daug/F♯, and the flat six chord, Eb (which can also be thought of as the four chord of the relative major key, B♭).

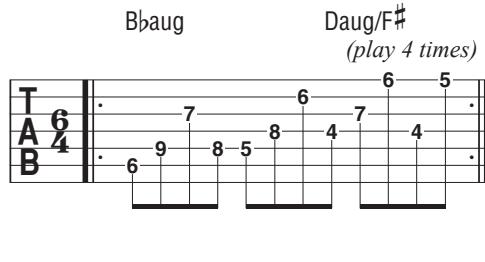
One of the cool things about arpeggiating chords in this way is that it allows me to imply *polyphony*—multiple independent voices—while

Seven-string guitar, tuned, low to high, to B E A D G B E.

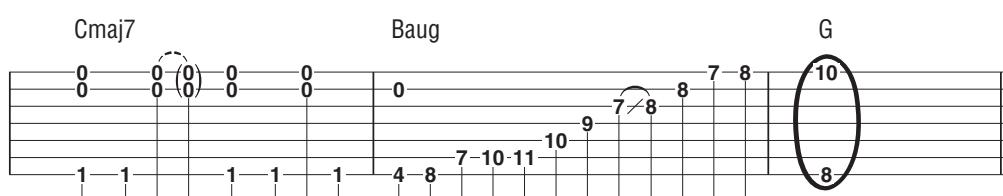
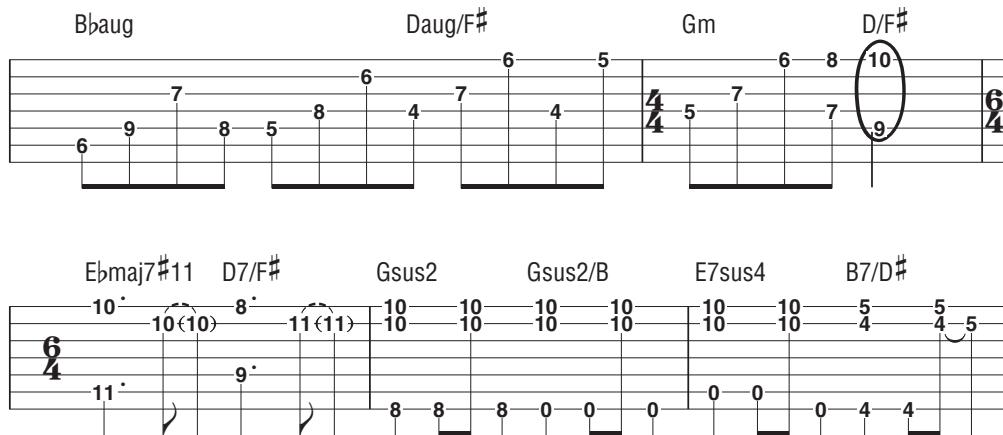
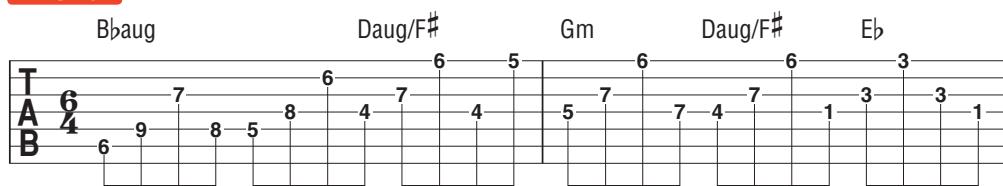
**FIG. 1**



**FIG. 2**



**FIG. 3**



not actually sounding chords in a conventional way. Regarding the picking technique, the pick hand strikes the string closest to it, so the pattern is both logical and economical in terms of movement. For me, hybrid picking in this manner facilitates sounding notes on nonadjacent strings as the pattern evolves.

In bars 6 through 8, I alternate between low

seventh-string bass notes and two-note figures sounded on the top two strings, culminating with an ascending line in bar 9 that outlines Baug.

An influential resource for this type of playing is Gustavo Assis-Brasil's great book, *Hybrid Picking Lines & Licks for Guitar*. It's one of the most useful instructional books I've ever come across, and I highly recommend it.

# SIX OF ANOTHER

More on playing in 6/4 meter, and how I perform the hybrid-picked arpeggios in “David,” part 2

CHAPTER

# 8

 IN THE LAST chapter's analysis of the track “David,” I described my penchant for writing songs in both odd and shifting meters. The opening sections of “David” are played mostly in 6/4 (also reckonable as alternating bars of 4/4 and 2/4), with bars of straight 4/4 briefly used here and there. Additionally, I use *hybrid picking*—a useful technique that combines flatpicking and fingerpicking—to perform the many different arpeggios and chord-melody patterns I play in the song.

**FIGURE 1** illustrates the phrase heard between 0:45 and 1:00 on the recording, after which I reprise the song's opening phrase. In bars 1–3 of **FIGURE 1**, I fingerpick melody notes on the top two strings while simultaneously flatpicking low bass notes to provide *implied harmony*. I use my pinkie to pluck all of the melody notes except for the open B note in bar 3, which I'll pluck with either my middle or ring finger. This is the most comfortable way for me to play this passage, but I encourage you to try other fingerpicking combinations to see what works best for you.

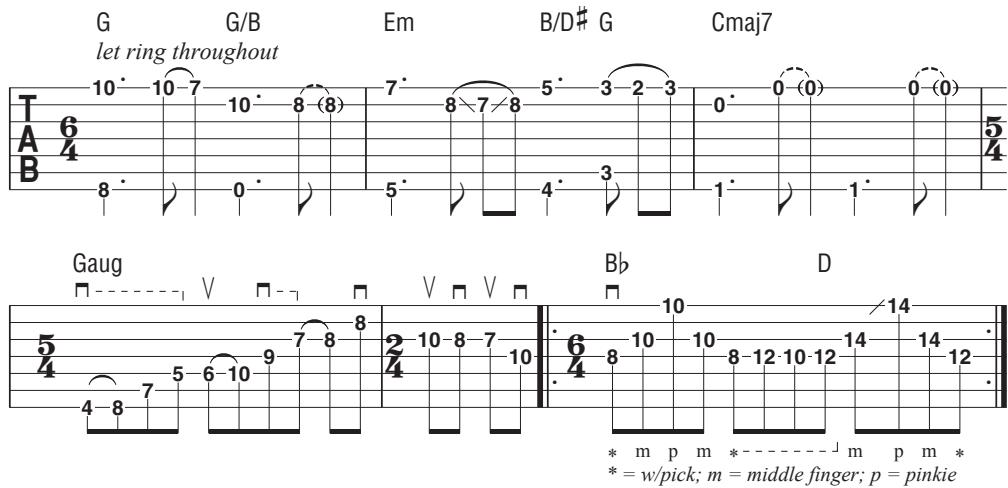
One advantage hybrid picking has over straight fingerpicking is that it enables you to quickly and easily revert to flatpicking, which is what I do to play the ascending run in bars 4–6. In bar 4, I employ *economy picking*, also known as *sweep picking* or “rest-stroke picking.” When moving from a lower to a higher string, I “rake” the pick across the strings in a single downstroke. Bar 5 is performed with straight alternate (down-up or up-down) picking.

To finish out the tune, the last thing that happens is a new melodic-harmonic guitar part that is layered over the opening B♭-D loop shown in bar 6 of **FIGURE 1**, which is performed with hybrid picking. This part, shown in **FIGURE 2**, is also performed with hybrid picking and played in virtually the same rhythm as that introductory part but supplies its own harmonic-melodic content.

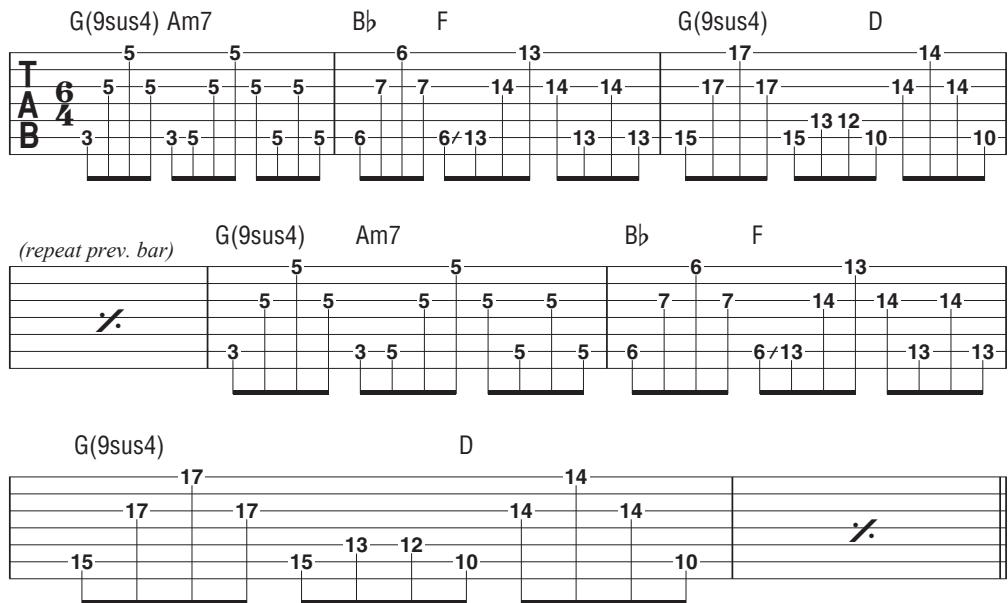
**FIGURE 2** begins with arpeggiated, open-voiced chord shapes nearly identical to those in bar 6 of **FIGURE 1**, except here the low bass notes are played on the sixth

Seven-string guitar (tuned, low to high, to B E A D G B E)

**FIG. 1**



**FIG. 2**



string instead of the fourth. The intervals of sixths on the third and first strings carry over from the initial theme. From bar 1 through beat two of bar 3, the bass notes steadily ascend the sixth string as the chords move from G(9sus4) to Am7 to B♭ and F, culminating with G(9sus4) played one octave higher. I then alternate between this pattern and an arpeggiated D triad, which requires a rather wide fret-hand stretch:

while the index finger is planted on the sixth string's 10th fret, the ring finger and pinkie fret notes at the 14th fret of the third and first strings, respectively.

Gustavo Assis-Brasil's instructional book *Hybrid Picking Lines & Licks for Guitar*, which I mentioned in the previous chapter, was an invaluable resource for developing the techniques I use in “David,” as well as many other of my original compositions.

# VOICING OPINIONS

## Devising chord voicings on the eight-string guitar

CHAPTER

9



**I LOVE THE** extended range and chord voicing possibilities offered by the additional two lower strings on an eight-string guitar. I tune my eight-string, low to high, to E B E A D G B E. This way, my lowest string is an E, an octave below the sixth string, and the seventh string is B, as it normally is on a seven-string guitar.

To show why this tuning is useful, let's start by playing a normal major barre chord. In **FIGURE 1**, I begin with A major played on the sixth through first strings. I can also barre my index finger across the seventh and eighth strings to conveniently fill out the sound of the chord. In **FIGURE 2**, I ascend from A up to E at the 12th fret. This E barre chord can alternatively incorporate the open bottom three strings, with fretted notes played across the top five strings.

Using this as a starting point, I can build a great variety of chords by keeping the index-finger barre and moving my other fretting fingers around. In **FIGURE 3**, I start with a standard Am chord and move to somewhat unusual Am9 and Am $\#$ 5 chords. For the latter two voicings, be sure to place your fret-hand thumb squarely on the center of the back of the neck to accommodate the wide stretches.

A favorite chord of mine is Amaj7 $\#$ 11. **FIGURE 4** illustrates two voicings that I often use for this chord. For each, be sure to pick each note individually to check that all of the strings ring clearly. Likewise, **FIGURE 5** offers two different ways to voice another harmonically rich-sounding chord, Amaj13.

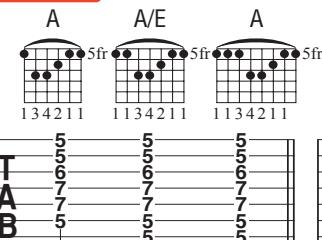
A technique I employ often is to fret chord voicings on the higher strings while incorporating the open lower strings. This approach can yield some unusually broad voicings, such as the Em9 shown in **FIGURE 6** and the Gmaj7/E voicings shown in **FIGURES 7** and **8**. Notice in these latter examples that I include open higher strings as well, which, to my ear, provides some beautiful chordal options.

Another technique I like to explore is to take a *static* voicing (one in which the "grip" stays the same) and simply move it up or down the fretboard, as in **FIGURE 9**.

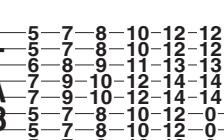
A great example of my incorporation of eight-string voicings can be heard in the song, "Point to Point," from the first Animals as Leaders album. It's based on the arpeggiated Bmaj7/E voicings shown in **FIGURE 10**. This phrase is performed with a combination of sweep picking and alternate picking.

Eight-string guitar, tuned, low to high, to E B E A D G B E

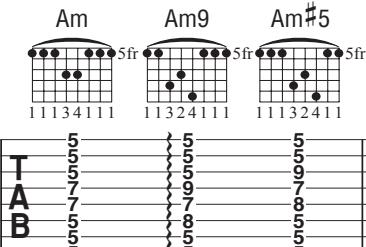
**FIG. 1**



**FIG. 2**

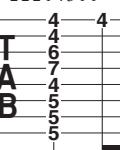


**FIG. 3**



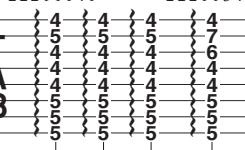
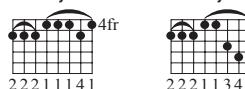
**FIG. 4**

Amaj7 $\#$ 11



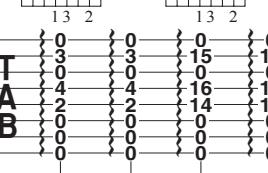
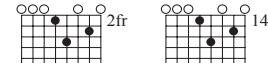
**FIG. 5**

Amaj13



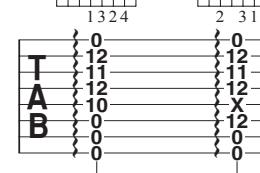
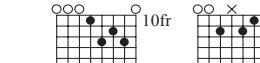
**FIG. 6**

Em9



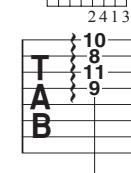
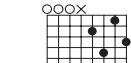
**FIG. 7**

Gmaj7/E



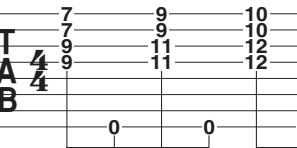
**FIG. 8**

Gmaj7/E



**FIG. 9**

Esus2 E $_9^6$  Em7add4



# TURN ON THE HEAT

# Effective ways to warm up both hands

# CHAPTER **10**



**ONE OF THE** toughest things for me to do while traveling constantly is to find time to warm up quickly and effectively. I have devised a few different techniques over the years that have proven invaluable to me and which I'd like to share with you in this chapter.

Two of the most common phrasing patterns I find myself using are either arpeggio sequences, wherein long lines are formed from playing one note per string across groups of strings, or chromatic lines, wherein a series of notes are played in succession on one string. In the two exercises presented here, both approaches are employed. Use alternate picking throughout, and strive for clarity and cleanliness in the articulation of each note. Once you have a handle on this, you can try incorporating economy picking, which is my picking preference when crossing strings.

**FIGURES 1** and **2** are exercises that I visualize purely for their *symmetry*, with “reverse diagonals” played across the strings alternating with chromatic notes on one string. **FIGURE 1** begins with the pinkie on the high E string’s 15th fret, the ring finger on the 14th fret of the B string, the middle finger on the 13th fret of the G and the index finger on the 12th fret of the D. On beat two, I “walk up” the D string chromatically (one fret at a time) with each fretting finger until the pinkie is at the 15th fret, after which I reverse the diagonal and move one note per string back up to the high E. On beat three into beat four, I chromatically ascend the high E back up to the 15th fret, after which the first shape is repeated. The pattern then moves down one string and is repeated three times, and then I change direction and move back up.

When you get back to the very beginning of the phrase, a neat twist is to move down one fret and repeat the entire sequence, as I do in **FIGURE 2**. As performed on a seven-string, the lick becomes even longer than it would be on a six-string.

Now that you have the idea, try moving similar ideas around the fretboard in as many different ways as you can devise. You'll find that exercises like this will keep your chops in shape, whether you're about to walk out onstage or are preparing to record a solo.

**Seven-string guitar (tuned, low to high, to B E A D G B E).**

FIG. 1

1

sim.

2

3

4

5

FIG 2

# ROLLERCOASTER RIDE

## Seven-string arpeggios

CHAPTER  
**11**

 **ONE OF MY** most valuable study practices has been to explore arpeggios (also known as “broken chords,” wherein each note of a chord is played individually and in succession) across all the strings. Like most guitarists, I began on six-string and soon graduated to seven- and then eight-string guitar. In this chapter, I’d like to demonstrate some cool ways to perform a variety of arpeggios across seven strings.

I’ve devised a specific arpeggio fingering pattern diagonally across the strings, spanning over two octaves, for which I can then alter one or two notes in each octave to morph from one chord *quality* to another—for example, from minor seven to dominant seven or major seven. This way, the fingerings are visually and physically similar and easier to memorize.

Let’s begin with Em7 (see **FIGURE 1**). After I strum the chord, I pick the notes of an Em7 arpeggio: E (the root), G (the minor, or “flatted,” third), B (the fifth) and D (the minor, or “flatted,” seventh), descending across the top five strings in seventh position and continuing across the bottom three strings in fifth position.

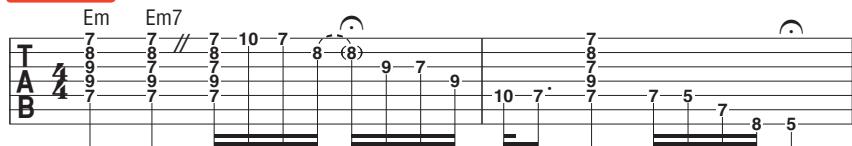
When practicing, I’ll often incorporate *economy picking* (also known as *rest-stroke* picking) into the execution of arpeggios. Economy picking is a technique whereby you use the same pick direction when crossing to an adjacent (neighboring) string; when moving from a lower to a higher string, the last note on the lower string and the first note on the higher string are picked with downstrokes. Conversely, when moving from a higher to a lower string, the last note on the higher string and the first note on the lower string are picked with upstrokes.

**FIGURE 2** illustrates an Em7 arpeggio ascending and descending across all seven strings, with fret-hand fingerings and pick strokes indicated. I begin with an upstroke on the low B string, followed by three downstrokes as I move across the bottom three strings. This pick-hand movement is then repeated for the next four notes, followed by a hammer-on from the G string’s seventh to ninth frets and the continuation of the downstroke movement across the top three strings. I’m essentially *raking* across the top five strings. When I descend, I use consecutive upstrokes, or a *reverse rake*, to move across to lower strings.

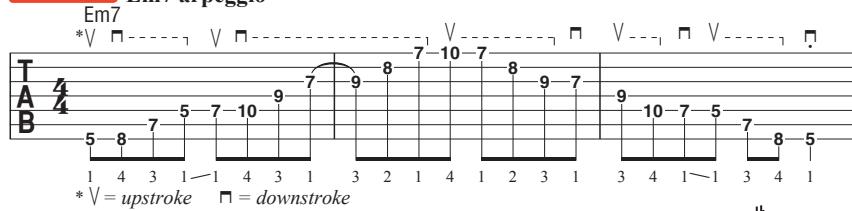
Now let’s tweak this pattern to formulate other arpeggios qualities.

**Seven-string guitar (tuned, low to high, to B E A D G B E).**

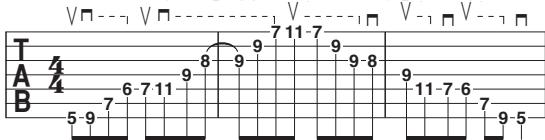
**FIG. 1**



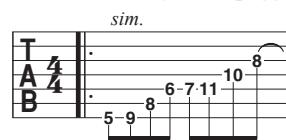
**FIG. 2** Em7 arpeggio



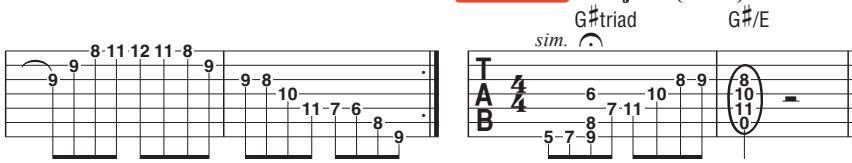
**FIG. 3** Emaj7 arpeggio w/economy picking



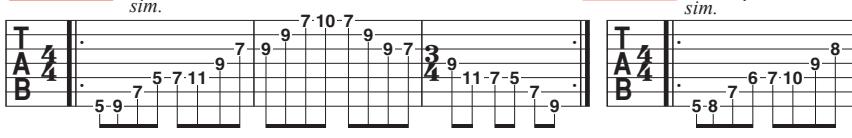
**FIG. 4** Emaj7#5 arpeggio



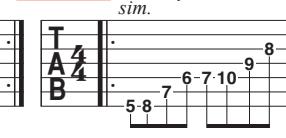
**FIG. 5** Emaj7#5 (G#7/E)



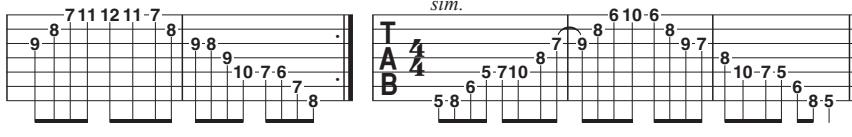
**FIG. 6** E7



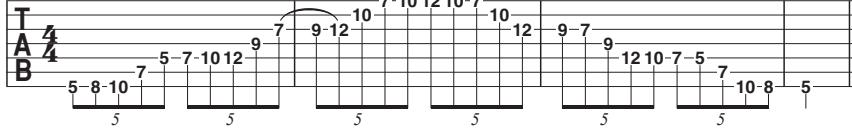
**FIG. 7** Em/maj7



**FIG. 8** Em7b5



**FIG. 9** E minor pentatonic lines



**FIGURE 3** offers an Emaj7 arpeggio (E G# B D#) picked the same way as **FIGURE 2**, and **FIGURE 4** formulates an Emaj7#5 arpeggio, achieved by changing the B note of Emaj7 to C (the augmented, or “sharped,” fifth). Interestingly, Emaj7#5 can also

be analyzed as a G# major triad (G# B# D#) played over an E bass note (G#/E).

**FIGURES 6, 7** and **8** illustrate similarly structured arpeggio patterns for E7 (E G# B D), Em/maj7 (E G B D#) and Em7b5 (E G Bb D), respectively.

# TWO-HAND TOUCH

## Examining the two-hand tapping and odd-meter phrasing in “Isolated Incidents”

CHAPTER

# 12



**FOR THE TRACK** “Isolated Incidents,” from *Weightless*, I devised an unusual two-hand-tapping figure that serves as the song’s primary melody and sets up the distinct rhythmic syncopation from which other musical ideas evolve as the song unfolds. This type of “theme and development” concept is a songwriting tool that I use in many of my compositions.

The intro of “Isolated Incidents” is performed by tapping notes on the fretboard with both hands simultaneously. Some of you may be familiar with this approach through the playing of jazz guitarist Stanley Jordan. When the track begins, the first thing you hear is the melody, which I play entirely with my fret hand. Without picking conventionally, all of the notes are sounded by firmly hammering onto the fretboard with the fingertips. At 0:17, an *ostinato* (recurring accompaniment) figure enters, which is produced by repeated pick-hand fretboard taps on F♯ on the D string’s 11th fret. The term *ostinato* is Italian for *persistent(ly)*. In music, it usually refers to a short, repeating pattern performed simultaneously with a melody. When the ostinato is above the melody, it is sometimes referred to as a *rhythmic ostinato*, or *isorhythm*.

**FIGURE 1** shows the part as played with both hands tapping simultaneously. While the pick hand taps the F♯ in steady quarter notes, the fret hand taps the syncopated melody on the bottom four strings of the eight-string guitar. An additional twist is provided by the unusual meter of 11/8, which can be thought of as four quarter notes (or eight eighth notes) followed by three eighth notes (8+3=11) and counted “one-and, two-and, three-and, four-and, one-two-three, one-and, two-and, three-and, four-and, one-two-three,” etc. Personally, I don’t think about counting the beats; I prefer to internalize the rhythm of the phrase until it feels natural to me.

In terms of harmony, my fret hand outlines an F♯m7 chord by tapping the notes F♯, A, C♯ and E while my pick hand taps the steady high F♯ root note (the ostinato). This carries through bars 1–4, after which I switch to F♯ major by tapping the notes F♯, A♯ and C♯, including the fourth, B, as well. Notice that, as the phrase moves from bar to bar, I alternately begin with the two notes tapped simultaneously

Eight-string guitar (tuned, low to high, to E A E A D G B E)

**FIG. 1** “Isolated Incidents” ♩ = 156

1 F♯m7

4 F♯7

7 F♯m7

**FIG. 2** ♩ = 156

1 N.C.(F♯m7)

4 (F♯7)

10 N.C.(D5) P.M.

(B/D♯)

14 D♯5 D5

and then tapped eighth notes apart.

Of greatest importance when performing this part is to strive to achieve an even volume among all the hammered notes. Try to sustain each note into the next by not releasing it until the next note is sounded.

At 0:47, I switch to a heavily distorted tone and transpose the fret-hand figure down an octave (see **FIGURE 2**). After eight bars of 11/8, there is a bar of 2/4, and then I switch to a syncopated figure in 4/4 that emphasizes D and E♭ pedal tones.

# CONNECT THE DOTS

## Analyzing the harmonized melody lines in “Isolated Incidents”

CHAPTER

# 13

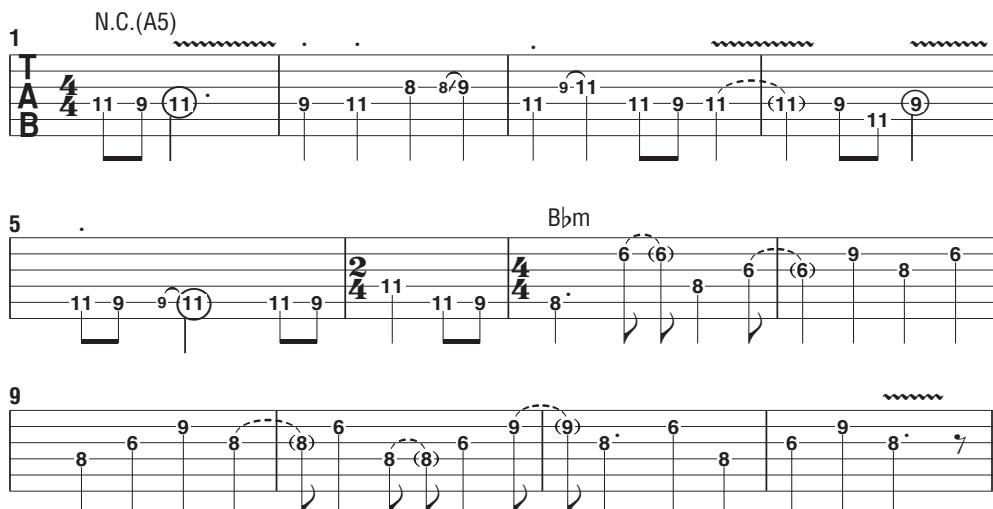
 IN THE PREVIOUS chapter, I demonstrated the unusual two-hand tapping technique that makes up the first section of the song, “Isolated Incidents,” from the latest Animals as Leaders album, *Weightless*. The section of the tune that follows features a transition to a heavily syncopated pedal-tone pattern with a single-note melody played above it. In this chapter, I’d like to go over that single-note melody, as well as the way in which I harmonize it when it is repeated.

As shown in FIGURE 1, bars 1–6 of the melody are played over a low A pedal tone, with the tonality of A major implied by the presence of the major third of the chord, C♯, in the melody. At this point of the song, the melody is very straightforward, with all of the notes falling directly on the strong downbeats of either “one,” “two,” “three” or “four.” The line is rhythmically simple, too, built from a combination of half notes, quarter notes and eighth notes. The slight twist added here is that I base the lines on the A Lydian mode (A B C♯ D♯ E F♯ G♯) instead of the A major scale (A B C♯ D E F♯ G♯). The only difference between Lydian and the major scale is that in Lydian the fourth degree is raised one half step, which results in a ♯4 (sharp four), D♯ in the key of A.

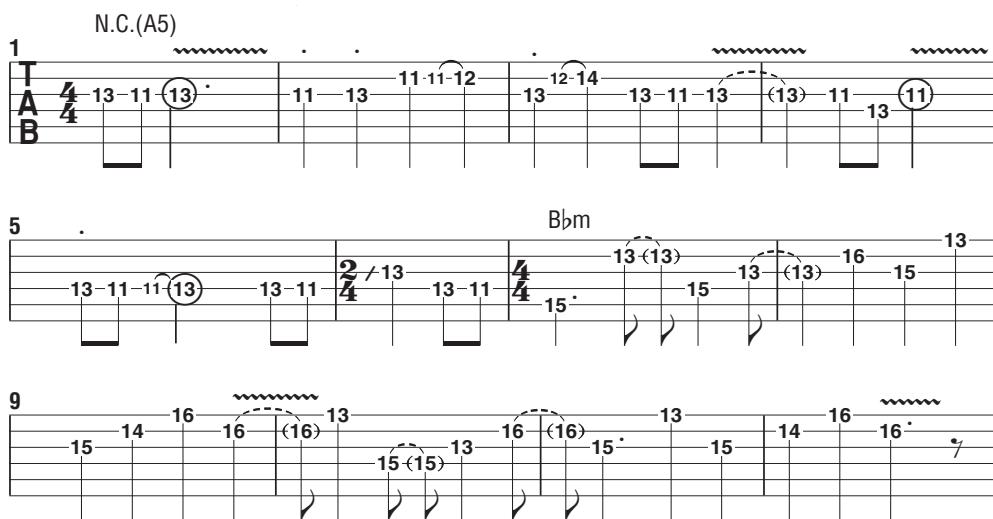
At bar 7, following a single measure of 2/4, the pedal-tone accompaniment shifts up one half step, from A to B♭, and the implied harmony moves from A major (with a ♯4, or ♯11) to B♭ minor. The melody from this point on is based on the B♭ minor pentatonic scale (B♭ D♭ E♭ F A♭) and mimics the primary “theme” of the tune that was outlined in the opening tapped figure. Simple as this line may seem, I switch between accenting notes only on the eighth-note upbeats—on the “and” counts between the downbeats—in bars 7, 10 and 11, and accenting notes squarely on the downbeats in bars 8, 9 and 12. Normally, these shifts between upbeats and downbeats would sound acceptable and be easy to comprehend. However, by laying the aggressively syncopated, Mesuggah-like offbeat line underneath it, I create *rhythmic tension*, making the whole thing sound rhythmically dense.

Eight-string gtr. arr. for six-string gtr.

**FIG. 1** Gtr. 1: melody



**FIG. 2** Gtr. 2: harmony



**FIGURE 2** shows the aforementioned harmony line to the melody in FIGURE 1, which enters at 1:17 on the recording. In bars 1–7 and the first three beats of bar 8, I harmonize the melody line a fifth above each note, diatonic to the previously mentioned scales. For that last note of bar 8, I move up and double the melody an octave higher, and I stick

with the octave-doubling approach through the next bar, after which I move back down to a fifth harmony for one bar and then back to an octave above for the final two bars.

This is the last chapter in *Prog-Gnosis*. I hope you have enjoyed these lessons and have found them useful and informative. Thanks for watching.