

**Berklee
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Guitar

Digital Handbook

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Welcome!

Whether you're just beginning your musical journey, advancing your career, or simply seeking a community that shares your passion, you belong at Berklee Online. I encourage you to explore this handbook, and learn how we can help you confidently develop your craft and build your musical future.

All the best,

A stylized, handwritten signature in white ink, appearing to read 'Jonathan Mahoney'.

Jonathan Mahoney

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Guitar Scale Basics

By Larry Baione

From the Online Course
Guitar Scales 101

Scale study is fundamental to guitar mastery, no matter what style you play. Learning scales benefits our technique, knowledge, and navigation on the instrument. It helps us organize that ambiguous guitar fretboard. Anyone can easily see the C major scale on the piano, but it is a different story on the guitar. Simply stated, scale study gives us knowledge of the fretboard and develops our technique.

Learning scales helps us prepare to play tonal music. Most music we hear (and perform) has tonal centers, also known as keys. The key of a piece of music is derived from the scale from which the melody and harmony are derived.

Let's start by looking at the major scale. A major scale is a succession of notes consisting of a pattern of half and whole steps that create that familiar sound of *Do Re Mi Fa Sol La Ti Do*.

The word "step" refers to the distance between notes. On the fingerboard, a half step is equal to the distance of one fret, and a whole step is the distance of two frets. A whole step is made up of two half steps. See the diagrams on the following page.

F Major Scale on the 6th String

Fingerings: 1 3 1 2 4 1 3 4

The diagram shows the F Major Scale on the 6th string in 4/4 time. The ascending scale is written on a treble clef staff with a key signature of one flat (Bb). The notes are F2 (open), G2 (3rd fret), A2 (5th fret), Bb2 (6th fret), C3 (8th fret), D3 (10th fret), E3 (12th fret), and F3 (13th fret). The descending scale is written on the same staff, with notes F3 (12th fret), E3 (10th fret), D3 (8th fret), C3 (6th fret), Bb2 (5th fret), A2 (3rd fret), G2 (1st fret), and F2 (open). The fret numbers are written below the notes. The fingerings for the ascending scale are 1, 3, 1, 2, 4, 1, 3, 4. The fingerings for the descending scale are 3, 1, 4, 2, 1, 3, 1.

C Major Scale (Open Position)

The diagram shows the C Major Scale in open position on a treble clef staff. The ascending scale is written with notes C (open), D (1st fret), E (2nd fret), F (3rd fret), G (4th fret), A (5th fret), B (6th fret), and C (7th fret). The descending scale is written with notes C (7th fret), B (6th fret), A (5th fret), G (4th fret), F (3rd fret), E (2nd fret), D (1st fret), and C (open). The fret numbers are written below the notes. The fingerings for the ascending scale are 1, 2, 3, 4, 5, 6, 7. The fingerings for the descending scale are 7, 6, 5, 4, 3, 2, 1.

The major scale begins with the starting note (which also corresponds to the name of the major scale) and follows this pattern

of both whole steps (W) and half steps (H): WWH WWH. For example, the C major scale starts on the note C, and can be built using this pattern of whole and half steps.

You can use the WWH WWH formula to play a scale from any note. Remember, one fret is a half step, and two frets is a whole step. If you start on the first string and play the first fret (F) and move up on the same string two frets for every whole step and one fret for every half step, you'll have played the F major scale up the fretboard.

You can start on any note and move up the fingerboard on the same string (as long as you do not start too high up the neck) and play a major scale by using this “step method.” You may not know the names of the notes of the major scales, but try playing a major scale up and back down starting on any note.

You just played the major scale up the fingerboard, on one string. You may notice that it takes up a lot of area on the guitar. The one-octave major scale takes 12 frets to play. This is just one way to play a scale. We can play a major scale more efficiently by using more than one string. To play a scale within a smaller area of frets, you can play across a number of strings.

The example on page 7 shows the C scale starting on the 5th string, 3rd fret, ending on the 2nd string, 1st fret. Notice the small area of the fingerboard that is used.

You are playing in first position on the fingerboard. This brings us to a very important concept: positions on the guitar.

Guitar Hand Positions

First Position



Second Position



Fifth Position



Seventh Position



What is a position? A position is defined as the fret in which your first finger plays. First position is where your first finger plays everything in the 1st fret. Second position is where your 1st finger plays everything in the 2nd fret.

Pat yourself on the back as you have already played the C Major Scale in first (open) position! However, learning to play scales in all of these positions, in addition to the first position, is crucial to advancing as a guitar player.

Larry Baione is the author of this course, and former chair of Berklee's Guitar Department. Check out the feature about his favorite guitars on the following pages, or learn more about the other lessons in this course by clicking the link below.

Interested in exploring this course further?

[**Learn More**](#)



Instructor Spotlight:

Larry Baione

Larry Baione was chair of the Berklee College of Music Guitar Department from 1990 to 2018. He has been a faculty member since 1974. He has studied with Lenzy Wallace, Mick Goodrick, Bill Harris, William Leavitt, Bucky Pizzarelli, and Jim Hall. He received his Bachelor of Music from Berklee and his Master of Music from the New England Conservatory.

At Berklee Online, Larry authored the *Guitar Scales 101* course and teaches private online guitar lessons for all levels.

Tell us about your favorite guitar.

I have two favorites: an 11-year-old sunburst Collings T16 archtop acoustic and an eight-year-old sunburst Benedetto Bravo. I got the Collings from the Music Emporium in Lexington, Mass., and the Benedetto from Benedetto Guitars.

What makes these guitars so special?

The feel of the neck and the acoustic response of the Collings. The consistency of the electric sound throughout the range of the guitar and the feel of the neck for the Benedetto.

What was your first guitar?

A student model Stella guitar, 1957. My parents bought it for me when I started taking lessons when I was seven. I still have it, but unfortunately, it is unplayable. I think it was unplayable in 1957!

What's the most guitars you've had at one time?

Five guitars.

If you could only use one pedal for the rest of your guitar-playing life, what would it be?

A volume pedal for a pedal steel effect.

Acoustic Guitar Techniques to Move Past Beginner Level

By Abigail Aronson Zocher

From the Online Course
Acoustic Guitar Techniques

You have an acoustic guitar, you know some basic chords and strums, but now you're looking to get to the next level in your playing. To start sounding like some of your favorite records and recording artists, you need to employ some common acoustic guitar techniques such as open tuning, fingerstyle, and dynamic strumming. To get your acoustic guitar sounding like Joni Mitchell, Nick Drake, James Taylor, and Lindsey Buckingham, here are three acoustic guitar techniques that you can start practicing today:

Alternate Guitar Tunings

Alternate tunings open a new world of possibilities for acoustic guitar players. They allow us to access harmonies and melodies in ways that make us forget our usual playing and writing conventions. They help us remember how fresh things sounded when we first started playing the instrument, only much better now that we have developed the hands and ears of a guitar player.

Generally, standard guitar tuning refers to the tuning guitar players most commonly use today: EADGBE. Alternate tunings for guitar can be anything different from that. You could move each string by the same amount, and the result would be the same sound, just

higher or lower (Jimi Hendrix, for example, tuned each string down a half step).

You could drop certain strings and let others remain; for example, “drop D” tuning lowers the 6th string one step down to a D, and double drop D lowers both the 6th and 1st strings down one step to D. Open tunings change some or all string pitches by varying amounts, to allow the open strings to sound a chord. Alternate tuning, or scordatura, has been used on other instruments, and in many styles and eras of music, but always serves to change the sound of the instrument, and the accessible fingerings (most notably chord voicings on guitar) available to the player/writer.

Open D Tuning

Re-tuning the guitar can feel quite natural after you are used to it, but can be disorienting at first. Try to think of that disoriented feeling as part of the charm of alternate tunings. You can tune to DADFAD (open D tuning) using Berklee Online’s electronic guitar tuner. Or if you’d rather use your ear, you can follow the steps at the top of the next page.

6th string: tune down one step from E to D

5th string: tune to 7th fret of 6th string

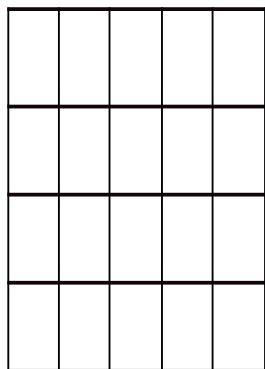
4th string: tune to 5th fret of 5th string

3rd string: tune to 4th fret of 4th string

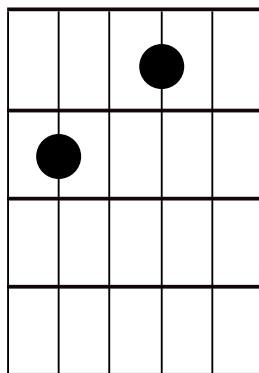
2nd string: tune to 3rd fret of 3rd string

1st string: tune to 5th fret of 2nd string

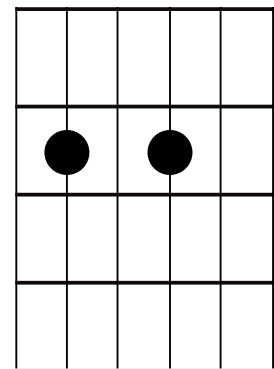
Now that we're in open D, let's find some chord shapes there. Look at the diatonic shapes that can move up and down the neck. For these, we'll finger the 5th and 3rd strings, and use the rest as open drones.



All Open



Wedge



Brick

Start by playing the chord which occurs when all the open strings are strummed (D major). Then move up the 5th and 3rd strings by whole or half steps, using the diatonic notes of D major. The other strings are included in your strum but remain unfingered.

Using two basic movable shapes (“Wedge” and “Brick”), play all the shapes that occur, until you reach the octave on the 12th fret.

Open D is just one of many alternative tunings you can use. Once you get it down, try exploring a different tuning with the guidance of the aforementioned Berklee Online electronic tuner.

Songs that are in open D:

“You Turn Me On, I’m A Radio” by Joni Mitchell

“Pink Moon” by Nick Drake

“The Gardener” by the Tallest Man On Earth

Fingerstyle

While you might want to bust out playing Fleetwood Mac’s “Landslide” right away, fingerstyle technique is very much like any other athletic venture: it requires relaxed and focused repetition to progress and become reliable. Here we’ll go over a few concepts to help you start your practice.

Most fingerstyle techniques can be described as either arpeggiated or melodic/scalar in texture.

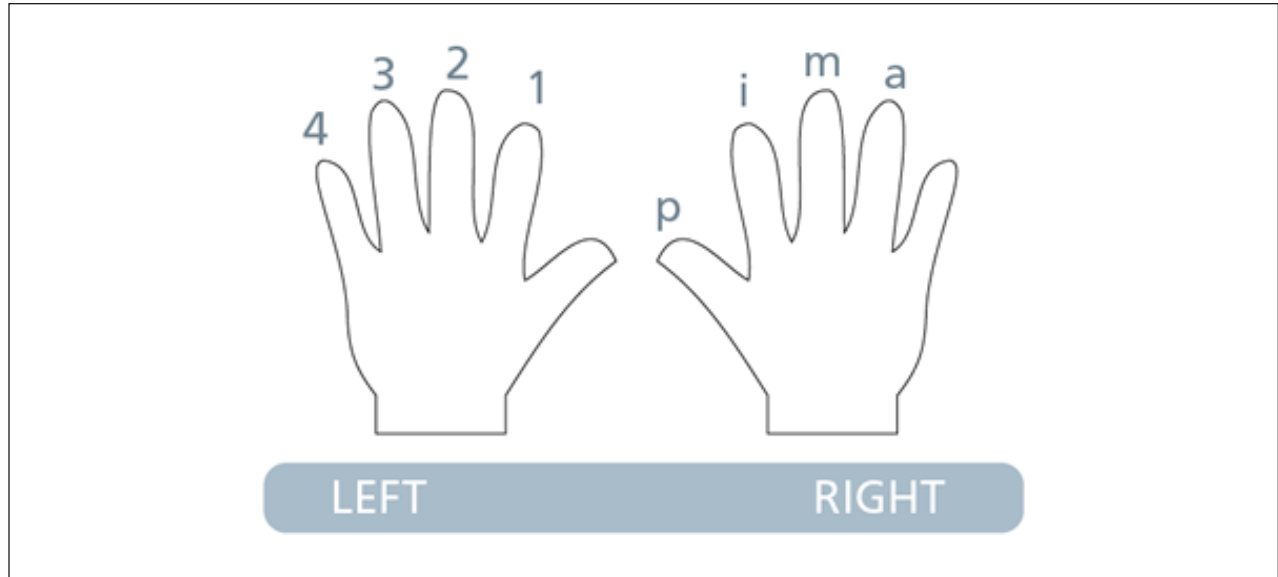
Arpeggios

Arpeggios happen when the notes of a chord are played one after the other in a particular order, rather than all at once. When playing an arpeggio, you will likely use many of your right hand fingers, moving in a particular order, but never the same right hand finger twice in a row. Your left hand will likely hold one chord shape throughout the entire passage, not changing. Strings are always alternating, never repeating twice in a row.

Melodic Textures

Melodic textures also feature notes played one after the other with the right hand. But instead of holding a static chord, the left hand changes its fingering for every note. The right hand can still alternate fingers, but it may play two consecutive notes on the same string.

On the next page, you'll see a diagram for finger-picking notation, where the right-hand fingers are labeled with the letters p, i, m, and a, representing the Spanish terms for their respective digits: *pulgar*, *índice*, *medio*, and *anular*. These symbols help organize fingerpicking patterns across the strings.



Classical guitar teaching includes some standard and sensible solutions for how to notate fingerstyle guitar music (you'll often find this notation in non-classical fingerstyle guitar sheet music too).

Right Hand: p i m a

Left Hand: 2 0 0 0

Staff Notation

Chord Grid

Tablature

Here are some tips for practicing fluency and consistency:

Compare the Notations

To start, try out the arpeggio. Then, compare the notations we have to choose from, shown above. Even though we play it one way only, it can be written out using three different types of guitar notation: staff, chord grid, and tablature. All these notations are describing the same, single exercise we are playing. Try this arpeggio, and notice how the music is described by each of the three notations.

In this instance, staff notation provides the most complete directions for how to play the exercise.

Arpeggio Practice Methods

Now play the arpeggio, focusing on each of these practice techniques separately (one at a time), staying with each technique until you have had time to focus in on it.

Metronome Use

Using a metronome, choose a tempo where your right hand is relaxed. Focus on sitting deep in the pulse, with your thumb note falling right in the middle of the click. Repeat as long as you like but at least until you feel you have honed in on the pulse and are one with the metronome. It might take anywhere between 30 seconds and a minute or more, depending on how quickly you settle in and focus on any particular day.

Relaxed Repetition

Continue playing the exercise with the metronome, and shift your focus to how your hand feels. Think of releasing any tension. Slow the metronome down if necessary; relaxation, not speed, is the primary condition. Repeat as long as you like, but at least until you have focused in on the feeling. Continue, inching up on the metronome. Quit if your hand feels tired, and repeat later in the day, or the next day.

Balance of Volume and Tone Amongst the Fingers

Continue playing the exercise with the metronome, and shift your focus now to how each finger sounds and feels on the string, devoting some time to each finger individually. As before, slow the metronome down if you like; relaxation, not speed, is the primary condition.

Start with your “p” or thumb finger. Repeat the arpeggio in a relaxed, looping way, with the metronome. As you play, focus in on “p.” How does the tone compare to the other fingers? How does the volume compare to the other fingers? Are you moving slowly, or quickly, through the string? Does your nail catch? Are you still relaxed? If not, where is the tension? Repeat as long as you like, but at least until you have focused in on the relationship between your finger tip and the string.

Repeat the process for the “i,” “m,” and “a” fingers.

Songs that use fingerstyle technique on acoustic guitar:

“Landslide” by Fleetwood Mac

“Fast Car” by Tracy Chapman

“Naked As We Came” by Iron and Wine

Strumming Texture

The word “strumming” has never been one of my favorite terms, and I hope someday someone can find a better word. For now however, it is the only term I can think of to describe this cloth from which we create so much of our accompaniment texture. Within a strumming texture, though, there are many possibilities. Tone, touch, dynamics, register, weaving in melodic lines; all these variables offer ways to tailor our strumming so it suits our creative intentions.

You can refine and control your strumming technique by developing your ability to use touch, tone, dynamics, balance, registers, melodic lines, and bass lines; all within the context of a strumming part. In clarifying our tone choices on guitar, our classical kin offer us some useful terms.

Sul Tasto (or just “Tasto”)

Tasto refers to the fingerboard of a stringed instrument. Playing “sul tasto,” or with your right hand over the fingerboard, makes your sound sweeter and rounder. I tend to think of tasto as not just “on” the fingerboard, but near to it.

Ponticello

Pont refers to the bridge of the instrument, and playing ponticello means that your right hand plays near the bridge, giving a sharper, brighter, crisper sound.

Normale

Normale refers to playing in between the other two extremes, the place where most playing probably happens, somewhere around the bridge-side edge of the soundhole.

If you think of it, electric players use a pickup selector switch for this. We can do it the old fashioned way, moving our hand around. Also notice that as you strum, your path across the neck can be straight, or angled, for different effect.

Along with the area (fingerboard, soundhole, bridge) you choose to play over, the touch of your finger or pick to the string will determine the sound you produce. Classical pieces usually have character markings at the beginning which, although they don't specifically apply only to touch, can help determine it. At the top of a classical score you might see words like:

Briskly, aggressively, gently, vivace (lively), dolce (sweet), con fuoco (with fire), grazioso (easy, graceful), agitato (agitated), espressivo (expressive), and many more.

The way you touch the strings—for example moving slowly or quickly through them, lightly or heavily, easily or with tension—can determine the character of the sound you get.

Watch and listen to these players, all playing in a strumming texture for at least part of the song, noticing their touch.

“Freedom” by Richie Havens

“It’s For You” by Pat Metheny

“Ritual Dance” by Michael Hedges

As you work with alternate tunings, fingerstyle approaches, and strumming textures, you'll find that each technique opens its own world of sound and expression. These tools not only expand your technical ability, they also connect you more deeply with the music you love—whether that's Joni Mitchell, Fleetwood Mac, or your own original songs. Keep experimenting, stay relaxed and curious, and let these approaches guide you from basic accompaniment into a richer, more personal voice on the acoustic guitar. These three techniques are just a small sample of what you'll explore in the full version of the Acoustic Guitar Techniques course, where we dive deeper into the skills and concepts that will keep improving your playing for years to come.

Abigail Aronson Zocher is the author of the Berklee Online course from which this lesson comes. Discover how the Grateful Dead essentially led her to forsake the violin, or explore more lessons from this course at the link below.

Interested in exploring this course further?

Learn More



Instructor Spotlight:

Abigail Aronson Zocher

Abigail Aronson Zocher is a professor in the Guitar department at Berklee College of Music, where she teaches classical and jazz guitar, singer-songwriter techniques, and the Joni Mitchell ensemble. A graduate of New England Conservatory with degrees in classical guitar and jazz studies, she also performs as a vocalist and electric bassist.

With Berklee Online, she authored and teaches the *Acoustic Guitar Techniques* course.

What was your first guitar?

On a summer day when I was 13, and crazy about the Grateful Dead—Bob, not Jerry—my parents, guitar mentor cousin Emily, and I went to buy my first guitar at Toombs Music Store on Prince Edward Island in Canada. They had a wonderful, base model ply-top Yamaha, and my mom was ready to buy it, but my dad was concerned about my switching from classical violin, which I had been playing since I was five. He was a little worried about what he perceived was the lifestyle (“drugs and the gutter”) of a guitarist.

So what happened?

My mom prevailed and we bought the guitar. As it turned out, my dad loved it, and sat singing Bach and Beatles along with me as I played in the kitchen while he was doing dishes.

Do you still have the guitar?

I do! It still lives on Prince Edward Island, goes on all kinds of outings, and as it did on day one, it aces every adventure.



Ask the Instructors

What's Your Favorite Guitar-Based Song?

By Talia Smith-Muller

We polled members of the Guitar department at Berklee College of Music on their favorite guitar-based songs. For some of our instructors it was difficult to pare their selections down to just one, so if they asked for more, we let them send us more picks (no pun

intended). We just wanted to share with you the songs that strike a chord with your instructors. (This time, the pun was intended!)

Robin Stone: My pick is “Girl Gone Bad” by Van Halen. One of Eddie’s most explosive solos; no one can play like he did on this track. His playing is so unique and he changed everything with the first album and “Eruption.”

Bobby Stanton: On his version of “Georgia on My Mind,” Lenny Breau displays several of the techniques he developed that become the foundation of fingerstyle jazz.

Jane Miller: Do we have to pick just one?! That’s too hard!

Favorite solo:

Denny Dias on “Your Gold Teeth II” by Steely Dan from *Katy Lied*

Favorite riff on a turn-it-up rock song:

“Can’t You Hear Me Knocking” by the Rolling Stones

Life-changer:

Wes Montgomery “While We’re Young” chord solo

Julien Kasper: My entrant is Jimi Hendrix’s “Machine Gun” from *Band of Gypsys*. For me this performance defines commitment by an artist to the moment. It is one of the greatest examples of an improvising musician transcending the confines of their instrument and entering realms of pure emotion and spiritual energy. Hendrix perfectly captures the angst of the lyrics and the turbulent mood of the times. I’ve been listening to this since my early teens and it still gives me goosebumps, brings tears to my eyes, and makes my hair stand on end, particularly what many guitarists know as “the note”—the incredible sustaining bend that starts at 3:59.

Thaddeus Hogarth: It’s a tie! First, it’s Robben Ford’s “Blues MD.” Transcribe, learn, and memorize Robben’s amazing solo on this tune and you’ll have a tasty library of progressive blues licks in time for your next gig. Next, Oz Noy’s “Twice In a While” is a crowning achievement in a solo. Oz marries great guitar licks with motivic development in a fluid conversation that builds in emotion, takes you on an epic journey, and then brings you safely back home.



Instructor Spotlight:

Joe Stump

A Berklee professor since 1993, Joe Stump specializes in hard rock, shred, and high-tech speed metal. He has released five solo albums and three more with his band, Reign of Terror. He also plays with the power metal band Holyhell, playing to large audiences with Manowar and Rhapsody of Fire. He was named by *Guitarist* and *Guitar One* magazine as one of the top 20 shredders of all time.

Joe teaches private online guitar lessons for all levels at Berklee Online.

Tell us about your favorite guitar.

I have quite a few ESP custom shop Strats, all high-quality guitars. If I had to pick one, it would be my pearl white one with a scalloped maple neck, reverse headstock, locking tuners, Dimarzio pickups, and gold hardware: gorgeous axe.

What was your first guitar?

A Carlo Robelli SG copy. I was 13 or so. About a year later, I upgraded to a brand new 1974 Fender Stratocaster. It was black with a maple neck, like the one Ritchie Blackmore had on Deep Purple's *Made In Japan*.

What's the most guitars you've had at one time?

Now I've got something like 60 guitars—many ESP Strats, a ton of Fender Stratocasters: a bunch of '70s era ones with the big headstock, same as my heroes Blackmore, Yngwie, and Hendrix.

If you could only use one pedal for the rest of your guitar-playing life, what would it be, and why?

My old gray DOD 250 overdrive. It's quite a bit juicier and has way more character than an older tube screamer. I can get retro, hard rock tones out of it, as well as all-out metal and shred tones.



Instructor Spotlight:

Amanda Monaco

Amanda Monaco is a Grammy-nominated guitarist/composer and an associate professor at Berklee College of Music. She has performed at venues such as Jazz at Lincoln Center, Birdland, Jazz Standard, and Flushing Town Hall. She has released five albums to date and her playing has been described by *The New York City Jazz Record* as “utterly unique, a breath of fresh air.”

Amanda instructs *Guitar Chords 201: Chord Melody and Inversions* at Berklee Online and teaches private lessons for all levels.

Tell us about your favorite guitar.

My favorite guitar is my Brian Moore DC-1, which I got in 2005. I had an endorsement with Brian Moore Guitars at the time and they gave it to me in exchange for presenting more in-store demos with their iGuitar model. It sounds great, it's the perfect size for me as it's a thin-line hollow body—I'm 5'2"—and it's beautiful! It also has “E-Holes” instead of the usual “F-Holes” on a standard hollow body.

What was your first guitar?

An Aria Pro II. I was 12. My parents bought it for me after I was practicing for three months straight on Strat copy rental. I sold it about 30 years ago, after saving and buying a mint green American Standard Stratocaster.

What's the most guitars you've had at one time?

Nine.

If you could only use one pedal for the rest of your guitar-playing life, what would it be?

For teaching, my looper pedal, because it's been essential for remote teaching. For playing, my wah-wah pedal because it's versatile and too much fun to ever give up!

Playing and Understanding Triads

By Rick Peckham

From the Online Course
Guitar Chords 101

The longer I've played the guitar, the more it's become clear that chordal playing and melodic playing on the guitar amount to two sides of the same coin. The more time I've spent working with chords—all of the variations and possibilities—the easier it has become to look down at the fretboard while playing and see more options. A clear understanding of chordal shapes on the guitar leads to a thorough understanding of the instrument.

A chord is a set of three or more notes played simultaneously. If the notes are played one after the other, it is called an arpeggio.

Triads are three-note chords. They are built upwards in intervals of 3rds from a fundamental note, called a root, which is like the tonic of a scale. The major triad includes the tonic, 3rd, and 5th of the major scale built on the triad's root.

Each of these notes is described by a number corresponding to its scale degree (or interval) away from the root: 1, 3, 5. These numbers are referred to as “functions,” as in “E functions as the 3rd of a C major triad.”

Triads serve as a foundation for a basic understanding of harmony.

Play the C major scale, triad, and arpeggio below:

Scale								Chord	Arpeggio		
1	2	3	4	5	6	7	1	Triad	1	3	5
C	D	E	F	G	A	B	C		C	E	G
T									T		
A									A		
B									B		
3	0	2	3	0	2	0	1	0	3	2	0

The C major triad is spelled C-E-G. In the key of C, notes 1, 3, and 5 of the C major scale provide you with the notes of the C major triad. Another way to think of triads is in terms of intervals. From the root, the major triad has a major 3rd and a perfect 5th. It can also be seen as a major 3rd (C to E) underneath a minor 3rd (E to G).

Triad in third position:

CMaj

per. 5th

minor 3rd

major 3rd

T 3

A 5

B 5

Triad in eighth position:

CMaj

8fr.

minor 3rd

major 3rd

T 8

A 10

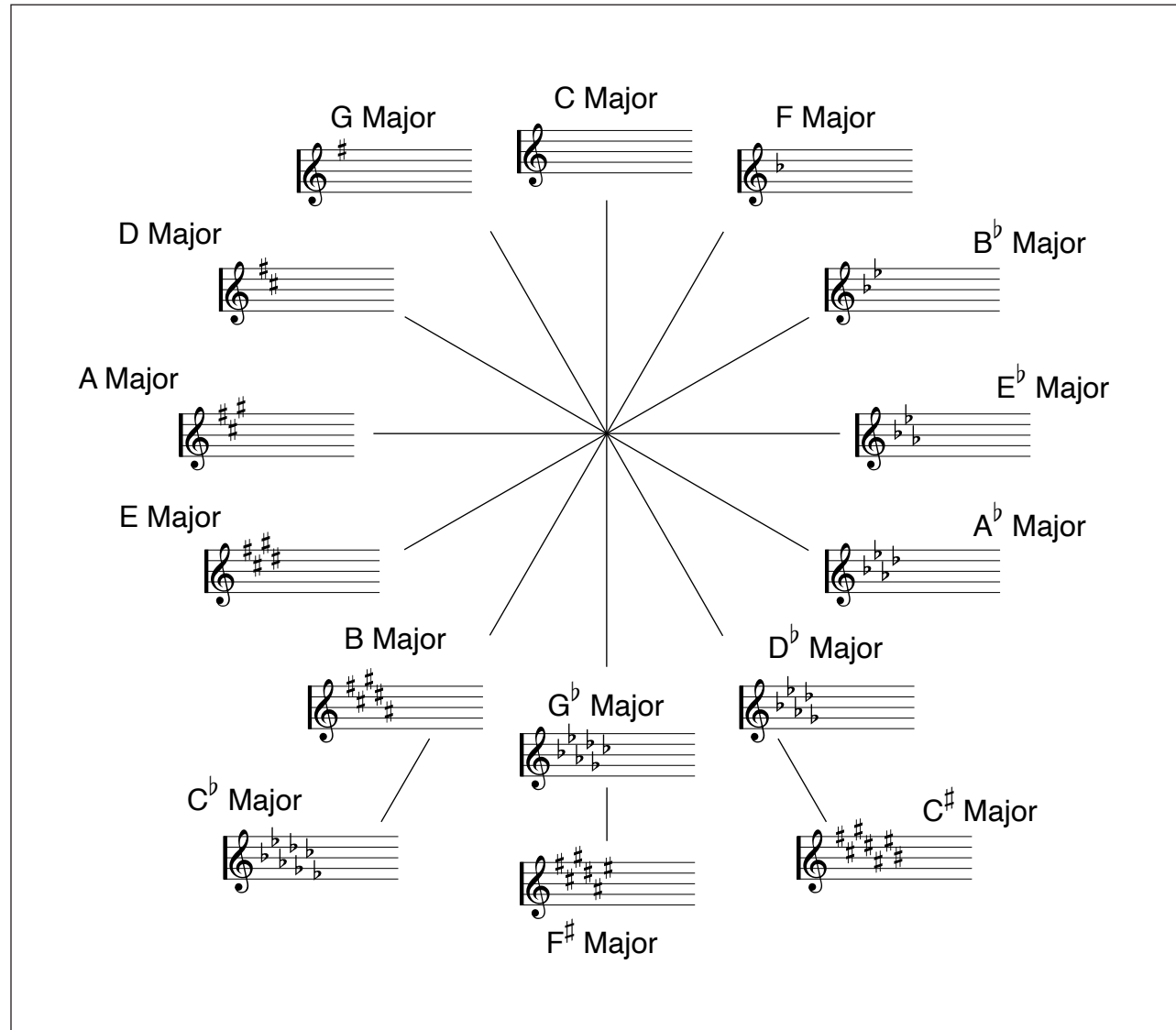
B 12

On the second set of three strings, and 2-3-4, the major 3rd interval has the upper note one fret below, and the minor 3rd between 2-3 has the same visual spacing.

In contemporary, jazz, and popular music, chords frequently move in intervals of a 4th up (or a 5th down). If we move from chord to chord by intervals of a 4th, we arrive at what is called the cycle of 4ths, also known as “cycle 4,” shown on the page that follows. A cycle is defined as a series of events that recur regularly and usually lead back to the starting point. If you start at any note and continue around the wheel to the note that is up by a 4th, you will eventually end up back at the same note. In so doing, you will have covered all 12 notes in the chromatic scale, without repetition.

This serves as a useful reference to allow you to take anything through all 12 keys. Although not as intuitive as half-step motion on the guitar neck, knowledge of this set of key relationships will prepare you to play the countless songs whose chords move in intervals of 4ths, including thousands of blues, rock, R&B, and jazz tunes.

Cycle of 4ths



This diagram represents all 12 notes in the chromatic scale. Memorizing it will help you find the notes in any major or minor key, and help you develop an intuition of chord progressions.

Practice Tip:

To get used to the sound of the major triad, try playing major triads up the fretboard, one fret at a time, on the top string set (1-2-3). Play them in all 12 keys. This is a great method for accustoming yourself to voicing shapes.



Rick Peckham is the author of the Berklee Online course from which this lesson comes. Check out the feature about his favorite guitars on the following pages, or learn more about the other lessons in this course by clicking the link below.

Interested in exploring this course further?

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Instructor Spotlight:

Rick Peckham

Rick Peckham is an internationally known jazz guitarist, clinician, composer, and writer. He has performed with George Garzone, Jerry Bergonzi, Mike Gibbs, and Dave Liebman, and recorded with trombonist Hal Crook and organist John Medeski. Currently a professor in Berklee's Guitar department, he has been a faculty member since 1986, and served as assistant chair.

Rick authored the Berklee Online courses *Guitar Chords 101* and *Guitar Chords 201: Chord Melody and Inversions*.

Tell us about your favorite guitar.

I have a 1959 Telecaster that I bought around 1994 from a music store in my hometown, Norwalk, Ohio. The store owner refinished it, trying to repair the damage done by the previous owner, who had painted it bright pink and affixed a dandelion sticker onto it. It's good that the damage was done, because otherwise the guitar would have been priced way out of my range.

What was your first guitar?

At 10 years old, my first electric was a Kalamazoo solid body guitar, white with a black pickguard. During a jam session, it fell off of the top of a bass cabinet and broke in half, exposing the particle board. I moved up to a Les Paul Deluxe in 1974.

What's the most guitars you've had at one time?

Probably 20.

If you could only use one pedal for the rest of your guitar-playing life, what would it be?

I really like the Klon Centaur, even though it is way overpriced. It gives sustain without too much compression and overdrive without burying the original tone.

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Rhythmic Variation and Development

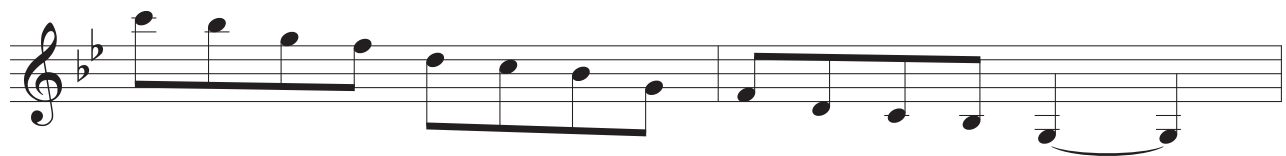
By Thaddeus Hogarth

From the Online Course
Funk/Rock and R&B Guitar Soloing

When you play a scale note after note, your solos will sound more like exercises than music. Space in a solo is as important as the notes that we play. Additionally, playing notes at random from a scale might not be enough to create an interesting musical idea. There are a few ways to make your musical idea more interesting:

- ① Add rests.
- ② Use a series of uniform rhythmic modifications within a solo line/melody. This creates a sense of development of the line.
- ③ Use rhythm to turn a simple scale into an interesting solo line.

Let's start with the simple, descending minor pentatonic:



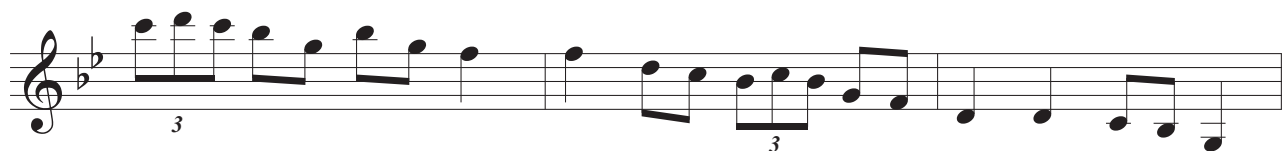
Now let's add different note rhythms. In this example, we will simply use the rhythmic pattern or motif of a quarter note followed by two eighth notes. Already you can hear that the scale takes on a more musical quality.



Add a triplet at the beginning of each measure. In this case the triplet is somewhat ornamental since it adds a note above from the scale and does not change the overall melodic feel of the line.



Next, try adding the element of repetition. In this case we are repeating both notes and sequences of notes in a few different places. The element of repetition is important in developing a melodic solo line.



Now we'll displace some of the notes in the line by adding rests. As we saw earlier, space in a solo is as important as the notes that we play.



To further develop this line, we'll add sustain, or tied notes in various places. At this point, it is safe to say that sustain works best when the chosen note is a chord tone (1, 3, 5, or 7). Still, as one develops as a soloist, there are many situations where tensions (non-chord tones) will work.



As you can hear, the final, modified line sounds more musical than our original descending scale.

This simple method utilizing these techniques is a way to create interest in your solo ideas. At this point, of course, the process is somewhat mathematical. However, as you progress, the goal is to get this to a point where it is intuitive.

Thaddeus Hogarth is the author of the Berklee Online course from which this lesson comes. Check out his feature on the following pages, or learn more about the other lessons in this course by clicking the link below.

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Instructor Spotlight:

Thaddeus Hogarth

Thaddeus Hogarth is a professor in the Guitar Department at Berklee College of Music. A two-time winner of the Independent Music Award for R&B/Blues, he has been a prominent guitarist and singer/songwriter in the New England music scene since 1990, when he graduated from Berklee. He leads his own group, the Thaddeus Hogarth Band.

Thaddeus authored the *Funk/Rock and R&B Guitar Soloing* course and teaches private online guitar lessons for all levels.

Tell us about your favorite guitar.

My favorite and only guitars are modified and customized Fender Highway One Stratocasters. My history with them started with a random eBay purchase and now I have three.

What makes the Highway One so special to you?

The instruments have been customized by Mark Herbert, the guitar tech for Pat Metheny. The body has been modified: the lower “horn” has been removed to create a double cutaway effect; the neck heel has been shaved to allow access to the higher registers of the fretboard, saddles have been changed, the nut has been replaced with graphite/teflon and the string tree removed. The tuners have also been replaced with Sperzel locking tuners and other miscellaneous tweaks.

If you could only use one pedal for the rest of your guitar-playing life, what would it be?

A wah pedal with a boost to get some overdrive. I think the wah pedal is an essential effect for the R&B genre, both in the rhythm and lead playing.



Instructor Insights

The Quest for a Good Guitar Tone

By Thaddeus Hogarth

The acronym GAS stands for Gear Acquisition Syndrome. This affectionate moniker might be thus described: The final piece of gear preventing us from attaining our tonal creative zenith of expression must be acquired at all costs!

Guitarists have the highest rate of transmission of this syndrome. All it takes is exposure to a good concert featuring a guitarist who sounds good. If you have read this far, you know the rest of the story and the bills that come at the end of the month as a result.

One eye-opener was transcribing the solos of my idols. Even if I could accomplish the melodic sequence in precise detail, after long, I was convinced I would never be able to bring across the sonic emotion of the solo without somehow cracking the tonal combination. The next step was, of course, to acquire gear identical to the artist in question. That, of course, never worked. We all played through relatively similar amplification back then, Fender, Acoustic, Ampeg. There were not many choices. But somehow everyone's tone was recognizably different even if we played the same model, one serial number apart. Those who were lucky enough to purchase an amp previously owned by (blank) still could not crack the code.

So I will share some quick thoughts on the quest for tone. In my online course *Funk/Rock and R&B Guitar Soloing*, we explore this concept.

One revealing experiment that we demonstrate in the course is the topic of “attack.” If you take away the first second of the attack of a note played on any instrument, it is often very difficult to determine what that instrument is and certainly impossible to identify who played it.

There are many ways to get a string vibrating and colorful sonic palettes that we can create by combinations of these (what I call) attack devices. The first one is simply the way we attack the guitar with a pick, up strokes, and down strokes.



Picking direction creates tonal differences...appreciate these differences and incorporate them into your signature sound.

- Thaddeus Hogarth

There are a number of exercises we can practice to become proficient at this, but begin by experimenting with the different

sounds that are created from the different sides of whatever pick you choose to use. I use the Cool Pick Medium gauge 1.2 mm because I like the almost abrasive tone that is created, and the fact that it has a section with a grip, good for those gigs where your pick hand gets a little sweaty.

If you are a Strat player, you will find that the five-position switch, in conjunction with a tight or loose pick, will give you too many tones to count. Picking direction creates tonal differences and based on your preferences, you may work toward making both your up and your down stroke as close as possible in sound, or you can appreciate the differences and incorporate them into your signature sound. Another way to get a string vibrating would be to pluck it with the fingers of your right hand. Plucking strings can be used in conjunction with picking to create an interesting sonic landscape. Often called “hybrid picking” when used in this way, the pick is held in the usual way with the thumb and forefinger, while the middle finger, ring finger, and sometimes the pinky are used in cooperation with the pick.

Hammer-ons become the next level of attack. You can pick a string and then use an available finger on your left hand to hammer on a

note to a target fret. The result is a legato, softer attack. Conversely, you can use a finger on your left hand to play a note by an attack device called a pull-off. The finger of the left hand snaps off a note, ostensibly plucking the string in the process, while a lower finger frets the target note. In addition to all of these combinations, you can slide either up or down to a target note, having already utilized any number of ways to get a string vibrating.



All of these methods can contribute greatly to what is recognizable as your tone and the more you master in the way of these attack devices, the more color you will inject into your lines. The number and frequency of combinations are seemingly endless. And if that

wasn't confusing enough, we can even add more variables to these choices by adding the various parameters of effects pedals to the mix: plucked notes usually wind up with more volume than picked notes. We can use this to our advantage to trigger effects that are velocity- or volume-dependent. Overdrive/distortion pedals are the most popular signal level-driven effect. If you set your overdrive right at the threshold, you can play softly and have a relatively clean tone, for example, by picking notes. Plucking notes will create more volume, and thus more overdrive. So a picking pattern using both picking and plucking will sound sonically colorful, with some notes sounding more gritty than others. The resultant effect is almost vocal in nature.

Another effect that can be used in this colorful way is the volume triggered envelope filter or auto-wah. Higher velocity=more wah with these pedals, so you can imagine how colorful your lines can become if you set this pedal's drive control right on the threshold.

So we might conclude that good guitar tone is defined less by the sustain of the note, than it is by the attack. We have all heard our favorite guitarists at some point playing through amplification that might not be part of their usual setup. However, even blindfolded,

we would still determine their signature style, not just by the sequence of notes played but (even after one or two notes) by their tone (or maybe “attack”?). I think we might find that part of the mystery of the science of the “signature sound” comes from the fact that there are many different ways of attack to get a guitar string vibrating, and they all sound completely different. Then there is the infinite number of combinations of these attack devices that becomes what is defined as a signature sound. Then, of course there is the amp, then the guitar, then the pickups, then the pedals, then the room, etc. But you can get a good tone of your own with the gear that you have.

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Basic Blues Forms

By Michael Williams

From the Online Course
Blues Guitar

Since the blues' earliest days, around the turn of the twentieth century, the guitar has been a preferred instrument of accompaniment for blues performers. A few circumstances contributed to its popularity and prevalence over the past 100+ years. The acoustic guitar produces a wide range of textures and sounds for rhythm playing and soloing that are ideally suited for accompanying the human voice. Many blues performers first picked up guitar simply because one was available from a friend or family member. History has shown that the guitar was well suited for a blues musician's nomadic lifestyle, since it was relatively easy to travel with.

Let's start by analyzing the most popular blues form, the 12-bar blues progression. Variations of the 12-bar blues are the basis for much of the music in rock, jazz, folk, and pop.

A basic I IV V 12-bar progression can consist of as few as three chords: I, the tonic chord; IV, the subdominant chord; and V, the dominant chord. For example, in the key of C, the chord progression would be C, F, G. In blues progressions, those chords are often played as (four-note) dominant-7 chords: C7, F7, and G7. This progression may look something like this (see chart on next page):

This is a typical I-IV-V blues with the “long change,” also known as the “long I,” which means that it starts with four bars of the I chord, followed by the IV chord in bars 5 and 6. Bars 7 and 8 return to the I chord, and then the V chord is played in bar 9, followed by the IV chord in bar 10. The I chord returns in bar 11, and then the V chord completes the progression in bar 12, and takes it home again as it repeats back to the top at bar 1.

12-Bar Blues: Long Change Progression

The diagram illustrates the 12-Bar Blues Long Change Progression in 4/4 time, showing the sequence of chords and their corresponding guitar fretboard diagrams.

Staff 1 (Bars 1-4): C7 (I7). The diagram shows the C7 chord shape at the 3rd fret.

Staff 2 (Bars 5-8): F7 (IV7) and C7 (I7). The diagram shows the F7 chord shape at the 5th fret, and the C7 chord shape at the 3rd fret.

Staff 3 (Bars 9-12): G7 (V7), F7 (IV7), C7 (I7), and G7 (V7). The diagrams show the G7 chord shape at the 3rd fret, the F7 chord shape at the 3rd fret, the C7 chord shape at the 3rd fret, and the G7 chord shape at the 3rd fret.

Turnarounds, which are fills that are played by the soloist and/or by rhythm section players such as the rhythm guitarist, are generally played over the last two bars (bars 11 and 12) of each chorus. The turnaround is a very important component of the blues progression. Each turnaround functions as a transition into the next chorus; it complements the vocal line or melody, and provides forward momentum for the flow of the song.

Thousands of songs have been recorded that were derived from these 12-bar blues progressions. Starting with early rock 'n' roll, songs like “Johnny B. Goode” by Chuck Berry, “Tutti Frutti” by Little Richard, and “Rock Around the Clock” all used this format. But listening across genres, this form is hiding in plenty of pop and rock songs where the 12-bar form might not be as obvious to detect, like “Kiss” by Prince, “I Still Haven’t Found What I’m Looking For” by U2, “Black or White” by Michael Jackson, or “Should I Stay or Should I Go” by the Clash. These songs are all a testament to the fact that basic blues forms are built to last.

Practice Tip:

Play the 12-bar progression as many times as it takes to really have its sound in your ears. Listen especially for the “pull” that the V7 creates towards the I7. This progression is prevalent in all genres of music and knowing it well will help you in many musical situations.



Michael Williams is the author of the Berklee Online course from which this lesson comes. Check out the feature about his favorite guitars on the following pages, or learn more about the other lessons in this course by clicking the link below.

Interested in exploring this course further?

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Instructor Spotlight:

Michael Williams

Michael Williams has been active as a blues and jazz guitarist around New England since 1987. He has performed extensively throughout the US and Canada as a member of Grammy-winner James Cotton's blues band, and with many other artists, including David "Fathead" Newman, Mighty Sam McClain, the Bruce Katz Band, and his own band, Michael Williams and Friends.

Michael authored the Berklee Online courses *Blues Guitar* and *Advanced Blues Guitar*, and teaches private online lessons.

Tell us about your favorite guitar.

I love the 1966 ES-335 that I got outside of Chicago around 1980. I also really love my '61 Strat and '66 Tele.

What led you to playing the blues more than any other style of music?

I'm not sure. The blues just finds its way out in most everything I play.

What was your first guitar?

A Montgomery Wards Airline steel string acoustic, with brutally high (I'm talking bleeding fingers) action: pretty much unplayable. It was a Christmas gift when I was around nine years old.

If you could only use one pedal for the rest of your guitar-playing life, what would it be, and why?

I like the Keeley modified Boss Blues Driver that I've had for 15 years or so. It's very transparent—when I'm using it, it sounds like the amp/tubes are working harder, rather than coloring the sound, like most stomp boxes.

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Instructor Spotlight:

David Gilmore

David Gilmore is an associate guitar professor at Berklee College of Music. He has performed and recorded with many of today's most influential artists including Wayne Shorter, Steve Coleman, Christian McBride, Dave Douglas, Rudresh Mahanthappa, Randy Brecker, Lenny White, and many more. Committed to an improvisational approach that reflects a global awareness, he conducts master classes around the world.

At Berklee Online, he teaches private guitar lessons for all levels.

Tell us about your favorite guitar.

My red Gibson ES335! I got it brand new from the Gibson rep. in LA. I have always loved the sound of Gibson's iconic semi-hollow, and this guitar is incredibly versatile: I'm able to play jazz, pop, funk, and other styles. Ergonomically, it's not the best guitar for me, but I've adjusted to it.

What was your first guitar?

My first electric guitar was a beat up Gibson SG, with a broken truss rod. I was 14 or 15 and my father brought it home from the building he worked at: it was left by someone who was rehearsing there at the time, who apparently didn't want it anymore. I think I traded it for an amp or something.

If you could only use one pedal for the rest of your guitar-playing life, what would it be?

One pedal?! That's impossible! I am really attached to my MXR Carbon Copy pedal. It can almost substitute as a reverb pedal, adds an amazing depth and color to my sound, and I can get some crazy effects out of it if I tweak it in real time.



Instructor Interview

Jazz Guitar with Jane Miller

By Jonathan Feist

Whether jazz is your signature style, or you are more comfortable playing in a different genre, Berklee Online instructor Jane Miller wants you to know that learning jazz guitar can help make you a better player and improviser. In her book from Berklee Press,

Introduction to Jazz Guitar, she helps readers understand and master the essential concepts and techniques of jazz guitar, regardless of the style they may already know. Miller took a few minutes to answer some questions about how jazz guitar compares to other styles, which guitars are best suited for jazz, her philosophy of improvisation, and more.



There's no script to read when chatting among friends. That's jazz.

- Jane Miller

How is playing jazz guitar different from other styles?

The biggest difference is the improvised nature of jazz. A player can have a plan in folk or rock and pretty much stick to it, often committing the performance to memory the way a classical player does. Folk and rock might have some leeway there, especially in solos, but jazz players have a lot more freedom of expression within any given tune. Jazz comping is very improvisatory in nature, for example. In playing the chords to support a melody or an

improvised solo, we are reacting to what the melody player is doing. Since the melody player is being loose with their part, too, we're all just having a conversation about the song. People who are good at—or at least appreciate—the lively art of conversation will understand the concept of kicking an idea around, sometimes using humor, sometimes using sensitivity, but it's always fresh. There's no script to read when chatting among friends. That's jazz.

Are some genres of jazz more guitar-friendly than others?

It seems to me that, historically, jazz guitarists have congregated in the mainstream realm. I don't have any numbers on this, but I suppose it's because from the 1930s and '40s up until maybe the 1970s, you could follow a line from Charlie Christian to Wes Montgomery to Joe Pass to Jim Hall. Then when fusion became popular, players fanned out stylistically to include rock elements, so now there's a great big diverse field of players contributing ideas and sounds.

Are some guitars better for jazz than others?

Choosing the right instrument is one of the joys of being a musician. And you can't have too many guitars! Yes, the instrument makes a difference, and every player has his or her own preferences. I have

small hands, for example, so a small neck is essential for me. No matter how nice the top, sides, and back wood are and how gorgeous an instrument it is, if the neck is too big for me, I'm not going to make it sound good. ... All of my jazz guitars have been hollow bodies. I used to have a Strat, which of course, is the staple of rock guitars. It was fun and reliable, especially for outdoor shows, but I have learned something about myself: anything with more than one pickup and I probably won't play it much after a while. I have a hankering for a Telecaster, which of course, is a solid body with two pickups, so we'll see how that turns out, but I really do have my hands full and I'm quite satisfied with my jazz boxes.

What are the benefits of playing with a pick vs. playing fingerstyle?

I learned fingerstyle first, so that is what is more comfortable for me, but I use a pick sometimes for single-note lines or to dig in more for comping a groove-oriented part. Fingerstyle allows me to play skipped strings at the same time, and it allows me to have control over the choice of strings while comping to create moving lines. I learned folk style guitar first when I was a kid, so a lot of those patterns with my thumb and three fingers have stayed with me and have become mixed into my jazz playing, especially bossa nova style.

I also feel like I can control bass lines better without a pick and can grab chords at the same time if I want to.



What advice do you have for how to start improvising?

Listen. A lot. Then I really think it begins with scales. I recommend learning patterns within scales so that you're not limited to starting and stopping on the first and last note of any given position. I also insist on hearing the scale as students practice in the context of the chords that they are matched with. For example, someone learning a C major scale for the first time should record themselves playing a I VI II V in that key and then practice the scale over that. Suddenly, what was just a dry boring finger exercise is musical. I also suggest

learning triads in small forms up and down the neck to use as reference points for soloing. These are all good places to start, but listening has to happen for any of it to make any sense.

How does studying jazz improve your abilities if you still plan to primarily play other styles?

One of the cornerstones of jazz guitar is the chord melody solo. If a player can master a song by playing it completely, chords and melody together, then they know that tune thoroughly. They will be better equipped to say something about it in a solo. They will be better equipped to play an interesting break between verses as a performing solo artist, such as a singer/songwriter. I think jazz technique can be demanding on the guitar. A metal player, who may have more single-line chops than I could ever dream of, could learn more about chords and harmonic structure on the instrument by studying some basic concepts of jazz.

Players who mostly play rhythm guitar in a band could benefit from learning some scales and how to use them. Chops that are gained from doing the workouts of scale practice are good for the hands overall, so that will make for an easier time with chord changes. It's all connected. And it's all guitar.

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