

# Wood & Steel

## The Taylor **Neck**

Anatomy of a  
pitch-perfect design

### **Rosewood Revisited**

The redesigned 700 Series

### **Doobie Brother Pat Simmons**

Acoustic fingerstyle meets classic rock

### **Dynamic Dreadnoughts**

7 must-play models

### **Baritone Basics**

Expand your musical palette



# Letters



## True Love

I have been a musician all my life. I have performed all over the U.S. and played many guitars. I have always wanted a Taylor but could not seem to raise enough money for one. In the last few years I've been performing on a modified Martin copy and had put Taylor in the back of my mind until I came across an issue of *Wood&Steel*.

Last year was rough for my family, and finances were thin. I thought of putting the guitar down all together. On Valentine's Day 2016 I woke up from a dream of writing new songs on a Taylor. When I went to my home studio I couldn't believe my eyes. A Taylor 114ce was on a stand in front of my desk. My wife told me to never stop playing no matter what! I love this guitar! Thank you, Taylor, for such quality and craftsmanship! I am 100 percent inspired again. I'm now saving up to get a T5z. Keep up the great work!

**Shane Johns**

## A Balanced Approach

Bob, thank you for your extended response to Mr. McKee's inquiry on ebony ("Ask Bob," Vol. 84). In my early adult years (1980s), I worked in a small woodshop for a guy who made custom jewelry containers from a fairly large variety of burl and hardwoods, including some tropicals like cocobolo and rosewood. The marketability of these products was based *entirely* on the natural beauty of the woods they were made from, and there's no "synthetic" that will ever prompt the "oohs" and "aahs" they evoked for us. It's a good thing for this beauty to be revealed and celebrated through the work of the craftsman's hand...not a bad thing. Even at that time, my employer was very conscious of the importance of proper management of the forests these woods were harvested from. He spoke of this often, but he could never have

dreamed of being involved with forest development/management in the way Taylor Guitars has been.

Your response to Mr. McKee's inquiries re-affirmed everything I've ever believed about our inherent responsibility for good stewardship of these precious natural resources. Good stewardship does not mean we – as the human beings whose lives and futures actually depend on the way we manage and use these amazing gifts of the natural world – should be forced to abandon all use of them. As you've succinctly pointed out, that would surely do no good for the people in Cameroon whose lives depend on this work. Good stewardship means that we balance our uses with sound forestry and management practices, both to protect the continued viability of existing resources and ensure that our children and grandchildren have even more/greater opportunities to do the same.

If someone out there can come up with a better way to do this than Taylor has been doing, I'm all ears, and I'm sure you would be too. In the meantime, keep up the good work, as your company shows the world how great guitars should be made...and enjoyed.

**Mark R. Wietstock (816ce)**

## Ol' Thunderbox

I stumbled upon the third Taylor I bought, a used 2002 710ce, quite a few years ago at a guitar shop here in San Diego. I'd always wanted a Taylor for myself (my first two were Baby Taylors for my daughters, one a lefty. I've since bought another Baby for my third daughter).

I have a local Irish bar band and we gig ceaselessly. I was looking for something to replace my old, worn-out stage guitar. When I first set eyes on ol' Thunderbox, I was compelled to pick this beauty up – I pulled a pick out of my pocket, attacked it like I do when I'm on stage, and was absolutely blown away by the sheer power of the thing! I didn't even plug it into an amp. The warm tone and overwhelming acoustic presence made it a sale immediately. I have a couple other "high-end" guitars, but I'd never heard anything like this 710. It has continued to be an absolute workhorse for me every single weekend since, and I'll never let her go. She's my moneymaker.

I tend to strum very hard and fast, and occasionally I'll break a string on stage, so my answer to this was...buy another Taylor as a backup! My all-black 210ce has also proven to be an amazing addition to our frenetic shows. I typically keep these two hard-working axes in their cases, gig-ready, and I also use heavy gauge strings (13s) onstage. At

home I like to play and write with 11s. So my answer? Buy another Taylor! I'm thinking a new 710e or maybe even 810e... I'm a sucker for a dreadnought and love the rosewood/spruce combo. I'm very excited for my next purchase!

Keep making these amazing instruments – I'm a fan and Taylor emissary for life.

**Kirk O'Brien**

## Part of the Family

Thanks for sending the latest *Wood&Steel*. I bought my Taylor classical about seven years ago, and every day I appreciate it more. I searched for a classical for a long time, and when I encountered the Taylor's thinner neck and the cutaway, allowing me to reach higher frets, I knew it was for me. In other words, perfect for an electric jazz guitarist transitioning to Brazilian and Classical. I thought I would never buy a guitar from a factory without playing it first in a guitar shop, but I learned I could adjust it to my specifications with the Taylor-approved repair people in town. I've had to repair a couple of rollers, and Taylor always sent me the parts free of charge the next day.

I'm writing now because of your magazine. This is not only a high-quality production, but getting it delivered year after year makes me feel like Taylor did not forget about me and will take care of my guitar needs into the future. Thanks for the good work and excellent service.

**Bill Cohen  
Woodland Hills, CA**

## Heartfelt Thanks

I have been remiss in sending this thank-you note – about 12 years remiss! Somewhere around late 2003, Kurt [Listug] had a column in which he provided heart attack signs and encouraged readers to take them seriously. [Ed. Note: *It was in the summer 2003 issue.*] Ironically, within a month of reading the column, I experienced those very symptoms and went to the doctor. Kurt quite literally saved my life, as did the stent that went into my 90-percent-blocked right artery.

It had been some time since I owned an acoustic guitar, and my wife had been saving up to get me one, insisting that it was time music moved back to the forefront of my existence. Sweet girl – she took me into the big city, where I played numerous instruments and left with a Taylor 414ce made in 2004. It was the pebble that started a musical landslide (not to mention the eventual purchase of three more Taylor guitars!). Even sweeter, we now play together as touring musicians and artists-in-res-

## Full Recovery

The attached photo is of my 2014 First Edition 810e, just as it was found, 13 days after our home was burglarized and it was stolen. I live in Concord, Vermont, way up in the northeast corner of our state and just across the Connecticut River from Littleton, New Hampshire. Northern Lights Music in Littleton is where I fell in love with this guitar and purchased it. Dan and Moocho Salomon at Northern Lights were phenomenal, as always, and their beautiful shop is a perfect place for a guitar nut to get lost in. All was well until our home was burglarized and the perpetrators stole my Taylor. I lost a huge piece of who I am that day. I just knew I'd never see my



810 again. I went to see Dan and Moocho. We mourned the loss and hoped for the best. The days ticked by. The Vermont State Police and the Essex County Sheriff's Department had been working this case extremely thoroughly and aggressively. On the morning of January 20, I received a phone call at work. "Tim, this is [Vermont State Police Trooper] Shawn (McGarvin)... are you sitting down? We have recovered your guitar, and it appears to be in fine condition." I could not believe it! The "reunion" took place right in the evidence room, and I was just overwhelmed with emotion. As I began picking a little "Wildwood Flower," the tears flowed, followed by a huge grin. As I was stumbling for words to thank these fine officers for their hard work, Trooper McGarvin replied, "That big ol' grin on your face is all the thanks we need."

My guitar had been located a few miles in on a back (dirt) road. The criminals got scared when they realized what they had stolen. They couldn't pawn it, nor could they take it to any music shop in New England. The state police and I had contacted the pawnshops, and Dan and Moocho got the word out to just about every music shop in New England with a bulk e-mail and some phone calls. These thugs didn't have much of a chance, so they had ditched it, literally throwing it over a bank at the pull-off. This guitar spent two and a half days in near-zero-degree (F) temperatures. As the photo shows, about two or three inches of snow had accumulated on the case. I delivered her back to Northern Lights, where Dan performed a Taylor Factory Authorized examination and pronounced her as good as the day I first saw her in the store! All is well with the world again! I am most grateful to all parties who helped in the recovery and reunion of my guitar and me. Taylor Guitars, thank you for building such a stunningly beautiful yet exceptionally robust instrument and its accompanying case. Tough as nails!

**Timothy S. Berry  
Concord, VT**

idence under the group name Bridges Home.

So thanks to my lovely Tamara for being the bridge to reawakening music within me, and thank you, Kurt, for the sage advice. It's a good thing I paid attention. Glad to be here and truly happy to be playing.

**Dave Gunter  
Sandpoint, ID**

**We'd like to hear from you**

Send your e-mails to:  
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Wood&Steel

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## KURT'S CORNER

### The Color Purple

The world has lost several huge musical artists this year, most recently (as of this writing) Prince. We were fortunate enough to have made several guitars for Prince over the years, starting in 1985 with the purple 12-string featured on his “Raspberry Beret” video. Prince bought several guitars from us over the years, but this guitar was especially meaningful. He bought it at a time when the guitar market overall was incredibly weak, and the use of acoustic guitar in particular was absent from popular music.

I had received a call from Glenn Wetterlund at Podium Music, a Taylor dealer in Minneapolis. The Podium had supplied Prince with a Taylor 12-string 555 to use on some recording sessions, and he'd liked it. In light of the favorable reception, Glenn suggested that if we were to create a unique-looking instrument he would show it to Prince, who would potentially buy and play it. The “catch” was that Prince would not use any instruments that had the brand name displayed, so the guitar could not say “Taylor” on the neck. We would be making the guitar “on spec,” in the hope that

**The “catch” was that Prince would not use any instruments that had the brand name displayed, so the guitar could not say “Taylor” on the neck.**

Prince would love it and buy it. We were up to the challenge!

Larry Breedlove designed and made the guitar, and it turned out beautifully. Prince loved the guitar, bought it, and the guitar was then used in the video. Wow!

This was huge for us, for several reasons. We were a small, struggling company. The guitar market was down, and it seemed like the guitar “fad” had ended. Both Fender and Gibson were divested by their corporate owners. The acoustic guitar market was so poor that we were willing to try anything to make the instrument relevant to musicians at the time. One way of doing this was to give the acoustic guitar a different “image,” which we did with the purple finish on Prince's guitar. This generated some publicity for us, and while we weren't aware of it at the time, the tide had slowly started turning. Over the next five years, other events occurred that signaled a shift in musical trends favoring use of the acoustic guitar in music.

In 1987 and 1988, respectively, two prime-time television shows debuted in

America. One was called *thirtysomething* (1987); the other was *The Wonder Years*. Both featured acoustic guitar music prominently. The artist in both cases was Snuffy Walden, who composed and recorded the music with his Taylor guitar. Prior to these shows, it was rare to hear an acoustic guitar used in a soundtrack or on a commercial, something that's very commonplace today. And in the late 1980s, MTV's program *Unplugged* started airing, featuring artists performing their hits on acoustic guitars. The show was instrumental in ushering in a new era of popularity for the acoustic guitar.

Since that time, acoustic guitar music and the use of acoustic guitars in popular music has grown tremendously, and acoustic guitar sales have skyrocketed. Sales revenue of acoustic guitars has surpassed that of electric guitars in America and other parts of the world. Taylor Guitars, which was just a handful of people doing \$400,000 in sales in 1985, has grown to an international company of nearly 1,000 people generating over \$100 million in annual sales. Still, our company was built one guitar at a time, and through many successes, big and small. Every guitar has counted, and every success has mattered. And perhaps none more than the gorgeous purple 12-string and a young artist named Prince, who helped put Taylor Guitars on the map 30 years ago.

– Kurt Listug, CEO

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## BOBSPEAK

### Good Example

I watched a very good film recently called *King Leopold's Ghost*. It's the story of the Congo. I thought I knew a bit about its history, but not to this extent. I recommend it to any guitar enthusiast because this is where some of our most important wood grows.

While I was lacking some history, I have gained a pretty good current understanding of the people in the region because of the many trips I take to Cameroon each year to advance our ebony work, and because of the 60 employees I work hand in hand with. We've developed a very special bond there and are doing some of the most meaningful work I've ever been a part of in my life. Our employees have learned so much over the past five years, and the level of knowledge and professionalism is just blossoming. We're proud of each other. We've even seen them advance to being fully middle class in their town. The factory there is becoming one of the nicest businesses in Yaoundé, and this year we start planting and reforesting ebony. It's too much to talk about in a column, but it's going well and I'm proud of the work.

Our production here at Taylor Guitars is at a very high level, and this is requiring new levels of commitment. Andy Powers is asking a lot from us with his designs. It never ceases to amaze me how well he understands what to change in a guitar in order to make it better. Those changes push the factory

to do better work and develop better concepts of manufacturing (which I'm luckily pretty good at with the help of my incredible supporting cast), but the improvements also increase our sales! So we're faced with raising the bar quality-wise, while at the same time meeting demand. This is a tough nut to crack, but we're doing it.

For instance, the super thin 3.5-mil finishes we do on so many guitars now actually add about 40 percent extra labor to each guitar, which is going the wrong way when demand and output are higher. But we are pleased to do it because it's better. We've also stopped buying kiln-dried mahogany for our necks, favoring an in-house drying method that we've devised to improve quality. This is a huge undertaking. We've re-engineered the truss rod and are making sweeping changes in many operations to increase the quality and reliability of each part.

Back to the necks. I'll tell a little story. I was thinking how impossible it would be for us to make the pallets of wet neck wood and dry them ourselves across months of time. There are nearly 300 necks on a pallet, and we need just under three of those pallets each day. If we have a year's worth drying, it's about 650 pallets. The room required to store them for the aging process is enormous! I couldn't figure out how to justify this.

Then I saw a two-hour television documentary on how Jack Daniel's

makes their whiskey. It was amazing. During one part they showed how they cut Hard Rock maple into pieces similar to a neck blank that we have. They make pallets about the same size we make. They age those pallets for the same time or longer than we do, and when they're done...they light them on fire! Yes, they light them on fire to make charcoal to filter their whiskey. This is one of many steps taken to end up where they need to be. They're hooked on quality. They do what it takes.

So I said to myself, “If Jack Daniel's can do this only to burn it at the end, I can do it for a guitar!” and that was that. We're building the pallet stacks of wood as I write because sometimes it just takes seeing that someone else can do it to realize you can do it.

Much of what we do is geared toward better use of the raw material the forest gives us, like seasoning the wood in this way. We continually work to make a guitar of value that lasts and functions well in the hands of the owner. Our thinking is that if we're pushing sustainability, what's more sustainable than a good product that lasts for years, decades, maybe even centuries? Isn't this the first line of defense for using fewer natural materials – to make something that isn't disposed of or needs replacement after a short, useful life?

Another important effort is to ensure that wood is growing for the future. There may have been a time when you

could just take the wood, but that time is over. We continue to learn about planting and reforestation, a topic I touched on last issue. You'll read a short story in this issue about a great initiative we're starting in Cameroon in partnership with UCLA and the Congo Basin Institute in Yaoundé. We're starting to plant the trees that guitars will be made from in the future. And we'll

continue. Some of our inspiration for this comes from using mahogany from Fiji that the British planted there 80 years ago. Again, someone did it, and I am following their example. This to me brings it full circle. We hope to be the example that perhaps inspires another, greater person or company to help.

– Bob Taylor, President



### 2016 Taylor Factory Tours & Vacation Dates

**Please note that we've modified our tour schedule at the Taylor Guitars Factory.** A free, guided tour of the factory is given every Monday through Thursday at 1 p.m. (excluding holidays). No advance reservations are necessary. Simply check-in at the reception desk in our Visitor Center, located in the lobby of our main building, before 1 p.m. We ask that large groups (more than 10) call us in advance at (619) 258-1207.

While not physically demanding, the tour does include a fair amount of walking. Due to the technical nature, the tour may not be suitable for small children. The tour lasts approximately one hour and 15 minutes and departs from the main building at 1980 Gillespie Way in El Cajon, California.

Please take note of the weekday exceptions below. For more information, including directions to the factory, please visit [taylorguitars.com/contact](http://taylorguitars.com/contact). We look forward to seeing you!

### Factory Closures

**Monday, July 4 - Friday, July 8**  
(Independence Day/Company Vacation)

**November 24-25**  
(Thanksgiving Holiday)

**Monday, September 5**  
(Labor Day)

**Monday, December 26 through Friday, January 6**  
(Company Vacation)

**Friday, October 14**  
(Taylor Guitars Anniversary)

# BARITONE BASICS

A RICH-VOICED BARITONE GUITAR  
MAKES A REMARKABLY VERSATILE  
ADDITION TO YOUR ACOUSTIC ARSENAL.  
MEET YOUR NEW SECRET WEAPON.

BY SHAWN PERSINGER

**W**hen I saw a Taylor 8-string baritone guitar for the first time, I thought, it's so weird ... and so perfect for me. I saw this magnificent instrument as something new and very specialized, without hope for a wider playing audience. Once I got one home, I realized that it was also born from the luthier's tradition of small evolutionary steps. As a result, this logical design makes the 8-string baritone – and the slightly less eccentric 6-string baritone – not only a unique instrument, but one that any guitarist can be comfortable with almost immediately.

## Tuning

When I had a chance to ask Bob Taylor who he thought that guitar was made for, I was delighted that his answer doubled my appreciation for the instrument. "It's for old guys who can't hit the high notes in 'Have You Ever Seen The Rain' anymore," he quipped. And there you have it: a simple way to play your favorite song but still sing melodies that are otherwise out of your range. No more transposing or retuning; just pick up that baritone, strum a C chord shape, and out comes a glorious G. And that high A note – found in far too many John Fogerty songs, not to mention Journey, The Who, Eagles, et al. – becomes a much more comfortable E. (If this pitch and singing jargon is new to you, check out my "Hit Your Mark" singing lesson in the Spring 2013 issue of *Wood&Steel*.)

I realize that Bob was only being half-serious in his comment – if anyone knows that there are innumerable uses for the baritone it's Mr. Taylor himself – but there is also a lot of truth in his jest. Guitar-playing singer-songwriters tend to favor "guitar-friendly" keys (G, A, E

and C, for example), which means many of them end up singing a lot of "high" notes that the average guitar hobbyist just can't hit without some professional vocal training. What the baritone allows the average player/singer to do is to play songs, strumming the original chord shapes, but the chords that are heard are a fourth lower, thus giving the recreational player a better chance of staying in key vocally.

"This is all great," I hear you saying, "but what if I don't need to go a fourth lower? Maybe I just need a whole step lower. Or I don't need it lower at all, I just like the sound of the 8-string." Well, the answer to these questions is so simple that some people call the solution a "cheater." Yes, I'm talking about a capo. (I've found that the Kyser 12-string capo works best.) Unlike a normal guitar, which only allows you to go up in pitch with a capo, the baritone, by being

The practical applications of these unique characteristics include: 1) textural variation when playing with other guitarists, due to the thicker strings and unison strings (just strumming G, C and D in unison with a standard guitar is an auditory thrill); 2) chord voicing variations that allow the baritone to be played in different frequency registers, using different chord shapes; and 3) the ability to play faux basslines. These last two functions could stand a bit more explanation, so let's put them into song context.

Example 1 is the A section melody for the old-time/bluegrass staple "Angeline The Baker" notated for standard tuning guitar, in the key of D, using open position "cowboy" chords. Nothing unusual here. Example 2 is the exact same melody but here transcribed for baritone. If you don't have a baritone handy, don't let this confuse you: Yes,

**A normal guitar only allows you to go up in pitch with a capo. The baritone, by being tuned a fourth lower, actually allows you go up and down in pitch.**

tuned a fourth lower, actually allows you go up and down in pitch. All you have to do to get a baritone into standard tuning is to put that capo at the 5th fret. Play a G chord; a G chord is what you hear. But if you want to jam out with a Van Halen song in Eb, don't retune; just drop the capo one fret, strum E, and out comes Eb. Or say you want to play along with the original version of "Yesterday" by The Beatles. Drop that capo two frets – "Yesterday" sounds in F, but McCartney played it out of G, tuned down a whole step. Is Hendrix's "Hear My Train a Comin'" more your speed? Capo the baritone at the first fret and I wish you luck (Hendrix was tuned down two whole steps!). As you can see, the versatility of the low tuning alone is enough to encourage one's interest in the baritone. But wait, there's more....

## Texture, Tone and Faux Bass

One of the other many virtues of the baritone's lower tuning is the sonic manifestation of chords and single notes that place the baritone's sound in between a standard guitar and a bass...or as I like to think of it, a cello. The 8-string has the additional benefit of the jangle of the two middle octave strings, which fills out the sound even more, particularly when strumming.

the key has changed on paper, but when you play the baritone in the key of G, it will actually sound in the key of D. As you've no doubt noticed, not only has the melody changed positions, but the chords also are different. Once again, because of the baritone's down-a-fourth tuning, the G chord will actually sound as a D chord. This is an example of using the baritone for chord voicing and frequency register variations.

Example 3 introduces a bassline for standard guitar. If you are playing this on a normal guitar, you'll hear that Example 3 does work, but it's pretty thin for a bassline. On the other hand, Example 4, transcribed for baritone, is fat, rich and full, like a bassline should be.

## A New Instrument?

In the early 1700s Bartolomeo Cristofori invented what we now call the piano, which was a radical variation of the harpsichord (and then some). Though the outward physical appearances of both harpsichord and piano are similar, no one would ever confuse the sound of the two instruments. Additionally, the two instruments could be played the same way, but the greater expressive control and tonal flexibility the piano offered required composers to rethink their approach to keyboard music and helped create a new body

### Ex. 1

### Ex. 2

### Ex. 3

### Ex. 4

of musical works that changed music forever.

This is how I see and hear the 8-string baritone.

I've already made my case for the 6- and 8-string baritone as a fine addition to any player's collection, but now allow me to get a little more personal and suggest that the limits of the 8-string baritone are only those of our own imaginations.

Personally, I have been doing my best to slowly but surely compose a body of music specifically designed for the 8-string baritone. These pieces

emphasize the individual texture, tone and timbre of the instrument; highlight the massive, resonant overtones the guitar produces; and exploit the extreme register differences found between unwound, doubled, and wound bass strings. For all intents and purposes, these pieces can only be properly performed on an 8-string baritone, a guitar that can produce music no other instrument can. And I'm writing the music because it wants to be written. Ultimately this is why the 8-string baritone is perfect for me: It inspires. It induces. And it responds! **W&S**

*Shawn Persinger, a.k.a. Prester John, owns a Taylor 410, two 310s, a 214ce-N and an 8-string Baritone. His music has been described as a myriad of delightful musical paradoxes: complex but catchy; virtuosic yet affable; smart and whimsical. His book The 50 Greatest Guitar Books is being hailed as a monumental achievement by readers and critics. (www.GreatestGuitarBooks.com)*

# Ask Bob

## Fret wear, Douglas fir, and gig bag humidification

**Is ebony tougher than steel? My 6-year-old 714ce with a cedar top is my favourite guitar of all my 45 years of amateur playing. At home I generally play a 7-year-old 3/4 (Washburn) parlour guitar because it can kick around the house with no worries, and it gets far more play than my 714. The frets on the parlour have very little wear but on my 714 have excessive wear on the B string from the first fret down to the 7th, and slight wear on the first three frets of the high E string. I don't bend the strings, but there is virtually no wear on the ebony fretboard. Why is the ebony virtually unmarked, but the frets show considerable wear?**

**Rob Hill**  
Bedfordshire, UK

Rob, let me see if I can answer this. Ebony isn't tougher than steel. Frets are not steel; essentially they are brass and quite soft. Some alloys are harder than others, but it is essentially soft. Even so, it's harder than your ebony, but you really don't touch the ebony that much because you don't push the strings down to the ebony; they stop short of that. Your E and B strings are steel, and very hard, and therefore are capable of wearing the frets. Some players wear frets much more than other players, some less. The majority of players might need a few frets replaced one time in the life of their guitar. We've seen some players who can wear frets completely in a year. The frets on your Washburn are probably a harder alloy than the frets on your Taylor, but we choose our fret wire for a number of reasons, hardness only being one factor. Fortunately, they can be replaced when and if needed.

**Bob, I love my three Taylors – a GS8, NS24ce, and T3. I have a question about the necks on Taylors, specifically the heel. Why does it come to a sharp, angled edge instead of a smooth, rounded edge? It seems like it would make playing up the neck more comfortable.**

**Bert Bennett**  
Jackson, TN

Bert, it's nothing more than style. It's a traditional look that we like, and most

people never give it a thought. It's just a cosmetic choice in this case.

**A few years back there was a spring [2013] limited edition 614/616 with African ebony back and sides. From what I've read, only 300 were supposed to be made, and for some reason you ran out of African ebony and switched to Macassar ebony, so there are two versions of the series. It was said that the Macassar was a superior wood to the African. Is the Macassar more valuable? I would appreciate your insights comparing the African ebony to the Macassar ebony in terms of sound and availability. From what I've seen, the African ebony has sapwood (white) mixed, therefore the sound would be different as well.**

**Paul Retlewski**

Paul, first I'll address the "it was said" part of your question. Sometimes information grows its own legs and can be wrong. Both woods are very good, and neither is more valuable. They have similar sounds, but I personally prefer the Cameroonian as it's a little livelier. The Macassar (which comes from Indonesia) we currently use comes from a deep stock of ebony that exists in the U.S. and has been here for a couple decades. We think we've gleaned the guitar-grade wood from this stock at the wood dealer, and we've been using it slowly for some time. One day it will be gone, and we won't seek to replace it from any source. If something falls in our lap and we can verify that it has legal and ethical origins, we might use it, but that will be a happy accident at best. It's not something we can cause to happen, nor will we put effort into it. Cameroonian ebony, on the other hand, can be developed as a good wood for backs and sides because we have a hand in that development since we are partnered in an ebony mill in Cameroon. In fact, we have some in stock now that has been seasoning for a long time. I'll also point out that I say "Cameroonian" ebony rather than simply "African" ebony. I make that distinction because Madagascar (not to be confused with Macassar) is African and illegal, and a different sub-species than the legal and viable Cameroonian ebony, even though both come from Africa.

**Does an armrest change a guitar tonally? If so, does the material of the armrest (ebony, rosewood, etc.) matter? If not, why haven't they been a standard feature on guitars? Are Taylor owners able to have one made for their existing guitars?**

**Josh Van**

Yes, Josh, they do change the tone, as every little thing does. But guitars with armrests still sound very good. Just listen to them to decide for yourself; I'm sure you'll agree. The material, whether rosewood or ebony, makes no difference. The bulk of the armrest is actually mahogany and sits below the top cap of the wood you see. They are a standard feature on the 900 Series and Presentation Series already. They're expensive to produce, which is why they are only available on more expensive models. There is no way to retrofit an existing guitar to include an armrest. It's built into the guitar from the very beginning.

**I am a soon-to-retire professional woodworker about to pursue my retirement pipe dream: build an acoustic guitar. I am particularly interested in using domestic woods for as much of the guitar as possible. One I am fond of is vertical-grain Douglas fir. I'm wondering why it is never (as far as I know) used in guitars. It is readily available in vertical-grain or quarter-sawn form, and many of the pieces I work with are tight-grained. Does it not have good acoustical properties for use in tops, for example? I wonder if you have any experience with it.**

**Brian Oliver**  
Joseph, OR

Yes, Brian, we've made many guitars with Douglas fir, and it makes very good tops. It's strong and sounds quite good. You can also make your neck from it, because it's so strong and stable. It's a wonderful wood. Because it's a softwood species, people think of it as soft, but you know already that once it's seasoned it's harder and more stable than many hardwood species. It's a good



**Is it necessary to have a setup done on a new guitar? When would a setup need to be done?**

**Dave Kawecki**

Dave, we'd like to think the answer to that is "no." One of the main goals we have at Taylor is to deliver a guitar that is set up perfectly. By and large we achieve that, but that doesn't mean the action is just right for you. But from our factory you can count on a straight neck with level frets, a proper neck angle, a saddle and nut set to good specs that we strictly follow, and the guitar played before it leaves to control this quality.

idea to put it in an oven at 200 degrees Fahrenheit for an hour or so to set the pitch before building with it.

**I own a Taylor 815c that is about 20 years wonderful now. What was it about the early 800s that led you to stop making them and create an entirely new 800 Series? My 815 is a marvelously melodic instrument, and without any hyperbole whatsoever, it turns people's heads when they hear it (and see it) for the first time. In fact, many of my friends, professional as well as dedicated amateur musicians, comment on the beautiful, full sounds it creates every time they hear or play it. If ever there was a guitar that sang a song, it is this guitar. I'm just wondering what it was about those early 800s that made you rethink them.**

**Chris Sippel**  
Baldwin, NY

Chris, first I'll point out that your guitar is now 20 years old. Its age cannot be replicated with a new guitar. Let's not forget that effect on its sound. That being said, we have Andy Powers designing all our guitars now, and Andy and I embraced wholeheartedly the changes he made to improve the sound. If you read the reviews you'll see that everyone who reviews them agrees that they are a marked improvement in tone over the older version. So the answer is that we were motivated by the philosophy of continued improvement, even though we know beyond doubt that there are many guitars such as yours that are the favorite-sounding guitar of many players. It's nice to know that the originals still please people like you. But for us, the simple truth is that we are never entirely satisfied with our work.

**I'm a 16-year-old singer/songwriter and guitar player and own a 2010 Taylor DN5. I love it to death, but it's just a bit too big for me. I have the opportunity to trade for a 1998 514ce with the old-style neck and the old Fishman pickup system. Do you believe there are certain advantages to the old-style neck and pickup system? I hear many people who absolutely love the NT neck and the Expression System, and I'm wondering if I should save some cash and trade up to a newer Taylor, or if the 514ce will do just fine. Please educate me. Thanks.**

**Harrison Rhinehart**  
Lordstown, OH

Harrison, this is a difficult question for me to answer. The old-style neck is a good neck. And you can see that this 18-year-old guitar you're looking at is very good. I have guitars in my collection that are 38 years old with the same neck, and they're perfectly good. Don't fear that neck. As far as the pickup goes, we feel the new ES2 is the best system ever developed. But then I suggest you plug in the vintage 514ce and play it. You have to decide regarding the sound. If you love it, buy it! Don't think there's any more to it than that. It's really that simple, and you have the knowledge and opinion to decide by listening.

**I have three amazing Taylors (816ce, 414ce, 150e) that I play regularly. I never really thought about the humidity issue much because the 816ce and 414ce came with custom cases, and the regular methods of keeping them humid enough throughout the winter seem to work just fine. When I bought the 150e a few months ago at a Road Show as a nice 12-string complement to the others, it came with a gig bag. I'm trying to decide whether to replace the gig bag with a hardshell case or not (for additional reasons beyond the humidity issue) and was wondering whether there are any significantly different approaches for maintaining guitar humidity with a gig bag vs. a hardshell case.**

**Bob Robertson**



Bob, our service manager, Glen Wolff, answered you directly, but this is a common enough question to share with other Taylor owners, so here it is.

Humidity control is possible in gig bags as well as cases. The main thing is that you're stopping the direct air-flow over the guitar either way. Here's something to consider: Our hard cases are made from wood – about twice as much wood as we use to build a guitar. When you humidify your guitar in the hard case, you're also humidifying the case. This means your humidifier is trying to humidify both the guitar and the case at the same time. This can work in your favor if you're maintaining the humidity inside the case because the moisture the case is holding acts as a reserve for the guitar should you encounter drier than normal conditions or forget to check for a few weeks. When using a humidifier in a gig bag, you're pretty much only humidifying the guitar. The bag isn't going to absorb the amount of moisture the wood case does, but you don't get that reserve. In the end, you should still care for the guitar in the same way with either type of case, by storing the guitar inside the case or gig bag and using a humidifier when needed.

**When might we see the new ES2 pickups on the Taylor T5 Series guitars?**

**Kristopher Hinz**  
Asheville, NC

Good question, Kristopher. We don't have plans to put the ES2 on the T5 because the system it has works very well on that guitar. Its acoustic tones are very good, as are its electric tones. Its system includes three separate pickups, and they play together very well, so at this time we can't see the benefit of putting an ES2 behind its saddle. Another way to put it is that an ES2 is a single pickup made for acoustic sounds on an acoustic guitar, and the T5 is not the right guitar for that pickup.

**I am a beginning guitar player and bought an 810. What are the best strings on the 810 for a beginning player? I struggle a bit with the strings at the moment.**

**Rob van Waes**  
Netherlands

Rob, one thing I'm wondering is whether you bought the guitar used or new. If it's used, your struggle could be due in

part to a need for a minor neck angle adjustment to return the guitar to its proper setup, in which case I'd recommend having a Taylor-certified service technician check it out. If the setup is correct and it still feels a bit stiff, then try a set of light gauge strings. You can always switch back to mediums if your style or tastes change and you decide you want to try them again. No harm in that. We like Elixir strings because they last long and sound good. Try a set of their light gauge strings and see how it goes for you.

**I bought a 416ce back in August 2015. I absolutely love it, but I have a problem that I hope you can help me to resolve. I sometimes use different tunings when playing with a friend of**

**Terence Collins**

Terence, I'll let Andy Powers take this one:

It sounds like the string is getting some kinks where it crosses the edges of the post (pin) hole. As you tune down (and you're going a long way down to C natural), the kinks try to straighten themselves out once the string is unreel from the post a little ways. Since the steel string is stretched and fatigued in order to make a kink in the first place, as it tries to bend back to straight it breaks. Changing the tuner can help, but it won't necessarily fix the problem. Relieving the edges of the string hole in the post should help enough to remedy the problem. In all likelihood, a fix I would use first is a slightly different stringing method. If you wrap the string around the post one wrap over and the rest underneath itself, your problem will likely go away, as the string sitting atop itself has a stress relief aspect where the string contacts the post. Or you could put a few more winds on the string so the business portion does not fall directly over the post hole. This would prevent a sharp kink from ever forming in the area where the string exits its contact point on the post.

**mine, and several times now (about six), the top E string has snapped as I've been dropping it down to a C. The tuning I've been using is GCGCGC. I don't understand why a string would break when I'm lowering rather than raising the pitch. The break always**

## Got a question for Bob Taylor?

Shoot him an e-mail: [askbob@taylorguitars.com](mailto:askbob@taylorguitars.com)

If you have a specific repair or service concern, please call our Customer Service department at (800) 943-6782, and we'll take care of you.





# Team Player

**DOOBIE BROTHERS CO-FOUNDER  
PAT SIMMONS DELVES DEEP  
INTO HIS INFLUENCES, GUITAR  
TECHNIQUES, SONGWRITING, AND  
ONGOING ARTISTIC EVOLUTION**

By Teja Gerken

Photo: Tyler Habrecht

Simmons on stage with his 712ce

BLACK WATER • WHAT A FOOL BELIEVES • LONG TRAIN RUNNING • CHINA GROVE

**W**hen it comes to capturing the spirit of classic '70s rock, few bands do it as well as the Doobie Brothers. Founded in San Jose, California, in 1969, the band grew out of the rich San Francisco Bay Area music scene, but arriving just as the psychedelic summer of love era was winding down, the Doobies found a voice that was smooth enough for the mainstream, yet mustered enough grit to appeal to more dedicated music fans. Hits such as "Black Water," "What a Fool Believes," "Long Train Running," "China Grove," and many more have made the Doobies an indelible part of American pop culture. Amazingly, over the course of more than four decades, the band has not only survived several significant personnel changes, a couple of break-ups, and shifts in popular music tastes, but today, it's still going strong, with founding members and guitarists Tom Johnston and Pat Simmons continuing at the helm.

Although at times concealed by the Doobies polished overall sound, there is no doubt that the band has one of the coolest guitar sections in the business. Working without statically defined rhythm and lead or acoustic and electric roles, Johnston, Simmons and multi-instrumentalist John McFee (who joined the band after Jeff "Skunk" Baxter's departure in 1979) create interlocking parts that not only result in a huge sound, but also allow for the recreation of tricky studio parts in a live setting. And while the result is definitely a case of the sum being greater than its individual parts, it can't be denied that Simmons' fingerstyle-driven approach is a significant part of what makes this three-guitar army so effective.

Born in Washington State in 1948, Simmons grew up in San Jose. Getting swept up in the area's rich 1960s music scene, he began playing country blues fingerpicking guitar and performing in folk clubs. Meeting Johnston, bassist Dave Shogren, and drummer John Hartman ultimately lead to the original formation of the Doobie Brothers, and the band began playing heavily throughout Northern California. Simmons became one of the Doobies' principal writers, and his songs include "South City Midnight Lady," "Dependin' On You," "Echoes of Love," as well as the band's first No. 1 hit, "Black Water." Simmons' 1983 solo album *Arcade* yielded a Top-40 hit ("So Wrong"), and he released another solo album, *Take Me to the Highway* in 1998. As a YouTube search confirms, Simmons has played just about every kind of acoustic and electric guitar, but for the last several years, his acoustics of choice have been a pair of Taylor six-strings, a 712ce and a koa/spruce GS-Ke, which he uses both on tour and in the studio. In 2013, Simmons demonstrated his impressive acoustic chops in the intimate setting of Taylor's performance room at the Winter NAMM show, playing acoustic versions of Doobie Brothers hits including "South City Midnight Lady" and "Black Water" (accompanied by David Mayfield and Taylor's Andy Powers), as well the solo instrumental original "SoCal Slack Key," all of which can be found on Taylor's YouTube channel.

Ultimately, Simmons is the kind of artist whose talent and musical knowledge go far beyond the context he's best known for. Listening to him may not instantly evoke thoughts of Chet Atkins, Keola Beamer, Tommy Emmanuel, Béla Fleck or Doc Watson, yet as his conversation reflects, all these artists have been important influences on Simmons' playing.

Simmons talked by phone in March from his current home in Hawaii. Generous with his time, he was a relaxed conversation partner who left no doubt about the fact that he loves to talk about guitars and music.

*continued*

**Am I right to assume that prior to joining the Doobie Brothers, you started out as a folkie, playing fingerpicking country blues guitar?**

Yeah, that's pretty much my main background.

**Who were your primary influences back then?**

Probably my earliest influence listening to fingerstyle guitar would have been Chet Atkins. He was the first guy that I really got into. I was listening to other people too, but I didn't always realize who it was. Also all the folk singers: Bob Dylan, Joan Baez, Peter Paul and Mary — all that stuff. As time went on, I started listening to more traditional kind of music; for example, Rev. Gary Davis and Doc Watson come to mind. And Jorma Kaukonen had a huge influence on me as a teenager. He lived in San Jose, and we used to go see him play. It was a great experience for me to be able to see someone with that kind of ability in a local live venue. In the earlier '60s, there were plenty of electric bands, and I played in them too, but there was a great underground folk scene in the San Jose and San Francisco areas. Just a lot of great players and a lot of interesting music going on, so I was lucky to have grown up there.

## “I approach the guitar kind of like playing the banjo, where you're playing around the rhythms.”

**At the time, did you see yourself more as a guitar player or as a songwriter?**

I always wanted to write music. Even as a young teenager, I wrote a few songs and performed them at my little club gigs that I'd play. But I also wanted to learn more about the guitar and different styles. It's a never-ending process of learning. I think it's true for any of the arts: You're just always learning new ways to approach it. Just when you think you're getting pretty good, you pick up a Tommy Emmanuel record, and you go, "I've got some homework to do!"

**Are you into any of the more contemporary fingerstyle players?**

Tommy Emmanuel is someone I've always loved. Leo Kottke I've always loved... I'm not sure about young players. There are a lot of great younger players here in Hawaii, where I live. Jeff Peterson is a slack key guy over here who I think is great. Willie K is a

killer player. Barry Flanagan is another great player.

**I love the “SoCal Slack Key” piece you played at the Taylor NAIMM booth in 2013. You're obviously influenced by some of the Hawaiian players.**

Yeah! Keola Beamer is another player I should mention. I've listened to his music for years. Led Kapaana, George Kahumoko, there's just so many guys. The king was probably Gabby Pahinui, but his son Cyril is another killer guitar player.

**When you came up with “Black Water,” was that something that you were already playing on your own, or was it written for the band?**

It was written with the band in mind. I had the riff for the song, and I was just sort of fiddling around with it in the studio when we were recording an earlier album. I had just that little lick, and I imagined that it would be something sometime. I had my guitar in that open double drop-D tuning and started playing that riff, and the producer came on and said, “What is that? I really like that!” I said, “It's just something I've been messing around with,” and he said, “I hope you write a song with

basically, playing more 16th and 32nd notes. I don't always visualize it anymore; your muscle memory just creates the patterns. In other words, normal picking would be like, *thumb, finger, thumb, finger*; but I have adapted *finger, thumb, finger, thumb*, so it's kind of like doing upstrokes as opposed to downstrokes. That can give you a whole other vocabulary, instead of doing it in a specific form. It's a little bit freer.

**You mean it's more like creating an arrangement rather than being locked into a pattern all the time?**

Exactly. You can be a little more random in that respect, and sometimes you come up with other melodic elements that you wouldn't normally hear or feel. And the other thing is, a lot of times fingerpickers tend to go E-string, D-string, A-string with your thumb. But sometimes I never touch the fifth or sixth string, and I'll stay just on four strings, or you might stay on just three strings, and then you get another kind of vocabulary that can be interesting within the context of a particular song. These are things that I've accomplished more in the last decade or so. I was a bit more traditional in my approach in the old days, and now I have these other kinds of concepts.

**Do you guys try to match the actual guitars that you're playing, and the tones that you're getting?**

In some songs, but it's more that everyone is playing something different. It's point/counterpoint.

**So it's more about the arrangements than the instruments.**

Right. And on some songs, I'll listen to what somebody else is playing and just lay in with them, and vice versa; I might come up with a rhythm, and the other guys will do the same thing. It depends on the song and how you want to build it. There are certain songs where when we built them in the studio, it started out with a guitar part, and then we stacked parts on top of that, but in a live situation, having three guitar players enables you to get that big, full-bodied rhythm sound that we got in the studio. One guy will be playing electric, somebody else might be playing acoustic, John might be playing samples out of an electronic guitar that has a 12-string sound, or a resonator. We approach it differently for different songs, but a song like “Listen to the Music,” it begs for big fat rhythm guitar sounds, so that's how we'll approach it. Tom will start playing, and I join in, and even though in the studio, I played banjo on the track, when we're live, I'll lay in with the rhythm, and John will pick up the banjo part.



Photo: Tyler Habrecht

**You mentioned how your style has evolved over the years. Do you find that you've had to adapt your playing as the sound of the band has changed?**

Absolutely. When Mike McDonald was in the band, it was a different approach. I wouldn't say entirely, because I often did a lot of the same kinds of things that I did in the earlier band, but Mike's songs had a lot more chordal structure, more changes, and so I'd have to think of passing tones and chords. And that is different than playing a continuous, perhaps even a modal part over something, which you can when you have a rhythm riff going on. I did do some of that kind of modal playing over Mike's songs, but often, if I was doing a fingerstyle thing, it would be adapting to the changes, so that I would be having more passing tones within the structure, which is a little more banjo-like. I would never call myself anything close to what Béla Fleck plays, but you know how he moves through chordal structure in such

a beautiful way? I would think more in those terms when I was trying to apply any kind of fingerstyle playing to a song of Mike's.

**When did you first become aware of Taylor guitars?**

I have been watching other people playing them for many years, and I always loved the sound, and really admired the guitars. I asked my guitar tech, “Do you know anything about Taylor guitars?” And he said, “Well, I know Tim Godwin, one of the reps over there, he's a good friend of mine.” I said, “Man, I really like their guitars.” I'd been pretty unhappy with the acoustics that I'd been playing; they just didn't have the sound or the action that I was looking for. So I spoke to Tim, and he said, “Let's get together and talk.” I went over to the factory and took a tour, and I was just knocked out with the guitars. So that was the beginning, and I've been playing them pretty much ever since, probably about six or seven years now.

**You have a 712ce and a GS-Ke. What is it about those models that you like?**

They just play really well! I put up with crappy action for a lot of years, because of the particular guitars that I was playing. They were OK guitars, but they really didn't have very good action, the intonation was always a little bit off on them, and the sound just wasn't really great. Between the action and just being a great-sounding guitar, that's pretty much what any guitar player is looking for. And aesthetically, they're beautiful. I won't lie to you; I love a beautiful guitar! When we went through the factory, we got to the room where you can play all the different varieties they make, and living in Hawaii, I just love the sound of koa. It's got the fullness of Brazilian rosewood, but with a little softer edge.

**Do you bring them both on the road?**

Yes, and I use them in the studio. I used the Taylors on *Southbound*, the last record we did. We cut some older

## “In a live situation, having three guitar players enables you to get that big, full-bodied rhythm sound that we got in the studio.”

songs and then different Nashville artists came and sang on them.

**Can you compare what it was like to play acoustic guitars on stage back in the days before modern acoustic pickups and what it's like now, with your onboard Expression System electronics?**

It's like night and day. In the old days, you never really could get a great acoustic guitar sound, because you had to basically use a microphone, and there was just never enough volume, unless you were in a small club. With acoustic pickups, you have the ability to plug something in and retain a great acoustic guitar sound, and I love being able to put some chorusing and delay on the guitar. You're giving your audience something closer to what they're hearing on your records.

**Do your guitars have the original ES or the ES2?**

It's the newer system, and it goes directly into a DI box. After that, you're at the mercy of your sound mixer, but we have a great guy. I've heard some of the recordings he's done of board mixes, and he's really nailing it.

**Let's talk about your approach to songwriting for a moment. Is it a disciplined craft for you, or do you fall more on the side of having to wait for the muse to arrive?**

I think it's more discipline. I try to put myself in the situation so you have the opportunity to at least attempt something. If you wait, it may never come! Just now, for the last three days, I've been writing with our keyboard player, Bill Payne. We pretty much had to get in there and chip away at it to get somewhere. He had a few ideas, I had a few ideas, and were able to come up with some things. To me, it's something you have to throw yourself into. It works both ways: When you do have that inspiration, you can get in there and get something down. Any writer will scribble down lots of notes, and you bring them with you and take them into the studio. Some stuff you end up using, and probably 95 percent of it you toss.

**Besides music, you're really into motorcycles. I've always thought**

**that there is a cool connection between guitars and bikes, in that they're both among very few modern things where vintage designs still matter. But I was also wondering whether you think that there is a similarity between those two communities?**

Surprisingly, I came in through the back door to motorcycles, through vintage bikes. I actually had an old motorcycle shop with a friend of mine, and we were selling original and aftermarket parts, mostly for old Indians and old Harleys. From there, I got into more modern Harleys. I rode those for years, but really the old bikes were the ones that I was interested in. The first bike I ever had was an old BSA, and through the years, it's been more vintage than new. My wife and I do this ride called the Motorcycle Cannonball Endurance Ride. She's done it twice, and I've done it once, and we're about to take off again in September. We're going to go cross-country from Atlantic City to Carlsbad, California! It's for motorcycles 100 years old and earlier. My wife is riding a 1915 Harley, and I'm riding a 1914 early twin. It will take us 16 or 17 days. It will be a major challenge, but it's fun riding the



**Above:** Fingerpicking an 812e on the Taylor stage at Winter NAMM in 2013; **Below and Opposite Page:** Performing with his koa/spruce GS-Ke



Photo: Tyler Habrecht

old vintage bikes, and the people that are drawn to an event like that are the hard-core nutcases, like us.

**So you're into old bikes and newer guitars.**

[Laughs], well, I do like some of the old guitars, too. But like with bikes, it's a lot easier playing a nice, new, beautiful, sonically correct guitar.

**So what's next musically? The Doobie Brothers are heading out for a big spring and summer tour. We're doing about 80 shows. Some of**

them are with Journey and Dave Mason, there are festivals, private shows, all kinds of stuff. That's pretty much where we're at this summer. I'm writing some with Bill [Payne] and some other people, to hopefully get a new Doobie Brothers album started sometime this fall. We'll see whether we can get it done over the winter, and get something going next spring, that's what we're shooting for.

**Watching you in those videos from the Taylor NAMM event in 2013, it looks like you're really enjoying playing in that much more intimate**

**space than where you typically play. I think that's great, because you don't see people switching between those two settings very often.**

I don't do it much. When something like that comes along, it's always fun to step out of your comfort zone. It's a lot of pressure, to be honest with you!

**You find it to be more pressure to play for 100 people than to play a stadium?**

Oh, definitely. When you're by yourself, there's nowhere to run, there's no cover! **W&S**

# PITCH PERFECT

**Playability is just one virtue of Taylor's patented neck design. Precise adjustability guarantees you a lifetime of musical bliss. Here's why.**

By Jim Kirlin

It's been well over a million guitars since Taylor's patented "NT" (New Technology) neck debuted with our 25th anniversary limited editions back in 1999. Bob Taylor had already built a reputation for easy-playing necks by that point, but his game-changing design managed to crack the code on an age-old problem with the way the neck and body of a steel-string acoustic guitar meet. For a guitar maker on a mission, it was a rewarding payoff on his obsessive pursuits up to that point, all focused on making consistently great-playing guitars that were highly serviceable over time. It was rewarding to players too, delivering a finely calibrated musical tool for life.

With so many of these guitars now in the hands of players around the world, it's no surprise that the Taylor neck has become widely recognized as the gold standard for playability in acoustic circles.

**I**t's hard to overstate the value of a great guitar neck. A playable neck will roll out the red carpet to welcome a beginner. It will fast-track one's progression from simple strumming to back-of-the-book chords. It will reliably coax the best from a pro. It's the musical equivalent of a freshly paved open road that begs to be driven.

In our opinion, one of the biggest differences between a good guitar and a great guitar is the neck-to-body connection. A well-designed neck joint is like having strong core muscles. It means more stability, better posture (a good neck angle), and less likelihood of getting thrown out of whack. And like a strong core, it supports better all-around performance. A great neck setup will cover a lot of ground: help the guitar stay in tune, maintain proper intonation, and enhance the overall tone and sustain.

What's fitting about revisiting our neck design many years after its introduction is exploring the idea of how a guitar changes over time. What many customers might not realize when they first buy a guitar is that every steel-string acoustic guitar made of wood will change. Not might, but will. This is not a design flaw; it's simply the nature of the way wood ages, how the materials respond to the forces of tension being exerted upon them as a guitar, how the wood reacts to its surrounding climate conditions, and how the guitar naturally wears as it's played.

"Even the best-made acoustic guitars will probably need a couple of neck angle adjustments within their life span," says Taylor Service Network Manager Rob Magargal, a veteran repair techni-

cian who has worked on thousands of guitars. "Guitars are made of organic materials and they are moving constantly. String tension, temperature and humidity changes – all of these factors will affect the instrument's neck angle over time."

And while a new Taylor will usually win a playability showdown in a store thanks to the precision and consistency of the neck design, it's the ability of a Taylor to hold its optimized setup longer and be easily fine-tuned if necessary to maintain that ultra-playability throughout its entire life that adds so much lasting value to owners.

One side note on the "NT" name: Now that our neck design has lived in the world as long as it has, we've gradually moved on from using "NT" when identifying our necks. The "NT" part refers to the patented part of our neck design, but really, there's a lot more Taylor craftsmanship outside that particular design that contributes to the playing experience. So while you'll still see or hear lingering references to "NT" since it's a clear point of reference, you'll find us more often referring to it as The Taylor Neck.

Ahead, we'll recap Bob's thought process behind the neck design, explore how different a Taylor tune-up is from a traditional neck reset, and highlight the ways your Taylor will remain ultra-playable as long as you – or your kids or grandkids – play it.

## New Tools Power a Modern Approach

If you know your Taylor history, you know that Bob Taylor broke the conventions of traditional guitar making early

on with thin-profile, bolt-on necks that were more common in the electric world. Early on Bob took his lumps from naysayers who huffed that the design was inferior to the traditional dovetail or mortise-and-tenon joint that had reigned as the industry standard for acoustic steel-string guitars throughout the 20th century. But the proof was in the playing. Taylor won over players, dealers and critics with a sleek neck profile and low action, inviting electric players to the acoustic party with a neck feel that made for a smooth crossover.

The early grassroots popularity really began to accelerate as a result of Bob's purchase of his first CNC (computer numerical control) mill. This brought unprecedented accuracy and refinement to many aspects of Taylor's guitar-making process and set the stage for the company's steady growth throughout the 1990s. Bob remembers the epiphany that prompted his embrace of CNC milling as a new tooling platform.

"I can really exploit that thing. Why am I wasting it copying the imprecise work that we used to do by hand? Why don't I use it to do things that can't be done by hand?"

These days, the same factory floor where Bob set up that first CNC mill is filled with them, with many set up to perform an orchestrated mix of refined cutting, slotting or shaping work on necks, fretboards and bridges.

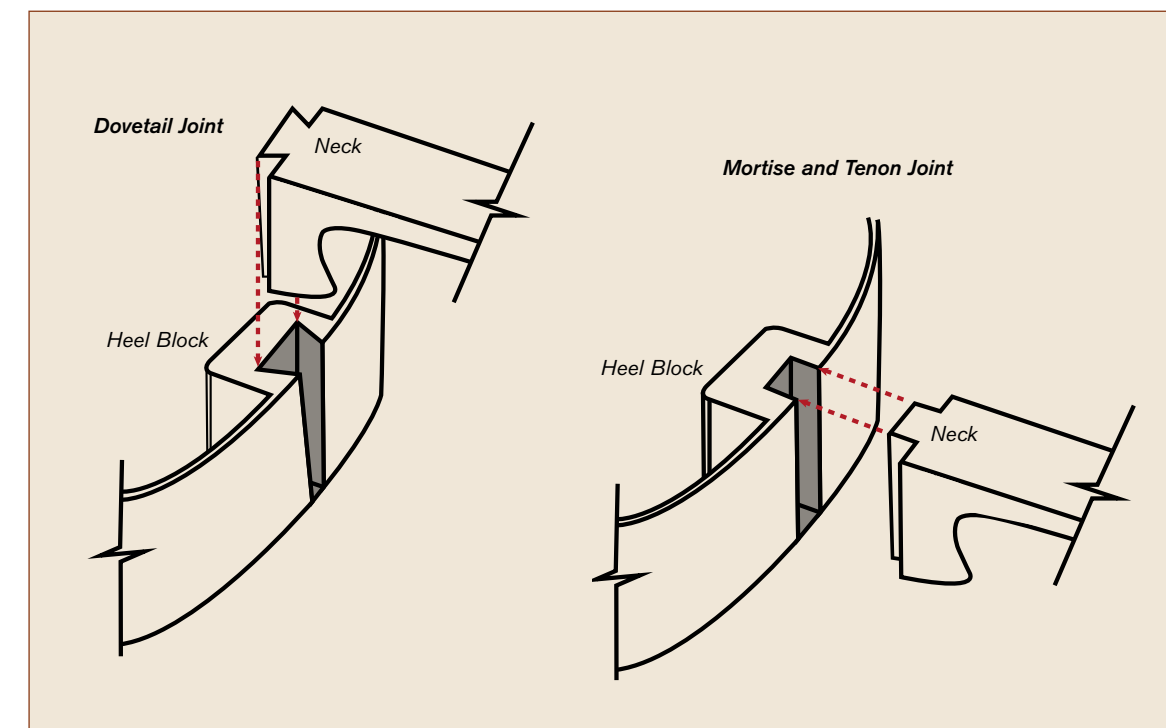
## Problem-Solving Design

One of the challenges of crafting an acoustic guitar that will perform well is balancing two competing goals: structural strength vs. sound. A guitar needs to be structurally strong enough to resist folding in on itself from the forces of string tension that want to pull the peghead and bridge toward each other. At the same time, a guitar's tone-producing capability comes from the use of light, responsive tonewoods and bracing, so the wood needs to be able

to actually shrink a guitar top by as much as much as an eighth of an inch across its width, causing it to sink (or eventually crack). Excessively humid conditions can cause a guitar top to rise, pushing the bridge upward relative to the fretboard surface.

While controlling the relative humidity that one's guitar is exposed to is still the best way to maintain it, Bob and Taylor's design team also addressed the issue at a deeper, structural level to increase both the guitar's stability and adjustability.

Though Bob's early necks had made it easier to service the guitar if the neck needed to be removed and reset, the approach continued to share a structural limitation with traditional dovetail neck designs. In both cases, when the neck was attached to the body, the cantilevered fretboard extension remained unsupported. As a result, it was glued to the guitar top to secure it. This problematic relationship was unique to



"I bought that machine because it could eliminate 20 machines in my shop," he recalls. "It could cut my fret slots, it could shape a neck, it could drill the tuner holes, it could do the inlays, all better than the specific machines and tools I had created to do every one of those things. Suddenly everything else just became boat anchors."

After a few years of using the mill, Bob had another revelation that would spark the innovative R&D effort that led to The Taylor Neck.

"I'm looking at a machine thinking, we've really just been mimicking hand

to resonate. If a guitar is overbuilt with excessive structure, it will suffer tonally because the movement of the materials will be restricted. If a guitar is built too lightly, the forces of tension will pull the guitar out of alignment. For this reason, the ability to control a guitar's neck-to-body geometry is essential to maintaining an optimal balance between stability and sound quality. This is why the neck joint design is so important.

One of the variables that can change that overall balance is relative humidity. Low humidity will cause wood to shrink, while high humidity will cause wood to swell. Extended exposure to dry condi-

a steel-string flattop acoustic – it's the only acoustic stringed instrument on which the uppermost part of the fretboard traditionally extends beyond the end of the neck and is glued directly to the body. This means the neck actually is attached to the body in two places: the heel joint and the fretboard extension.

As we noted in our original cover story on the "NT" neck ("Guitars for a New Millennium") back in our winter 1999 issue, by contrast, on archtop



guitars, violins, cellos, etc., the fingerboard and neck are one paired unit all the way up to the end. The neck attaches to the body in only one place, at the heel, leaving the rest of the neck/fingerboard extension to float above the guitar body. If the body swells, it doesn't lift the neck/fingerboard with it. That's why you hear about flattop guitars needing neck resets, but not archtops or violins or cellos. To solve that problem, Bob could have made a guitar neck that functioned more like a violin or archtop guitar neck, but he wanted to respect the intrinsic identity of a steel-string acoustic. Too radical a change, at least visually, would transform the guitar into something different in the minds of others. (For all of Bob's innovative inclinations, there are some areas in which he remains traditionally minded.)

Taylor's new neck design added stability to the neck in that fretboard extension area by supporting the fretboard nearly the entire way and by changing the way the neck met the body. The extra fretboard support comes from the neck's "paddle" joint – a CNC-milled, 3/8-inch-thick extension of the neck beyond the heel. CNC mills are also used to rout pockets into the body to receive the heel, neck joint and fretboard. As a result, the neck can be inset into the body. Since the fretboard extension is no longer affixed to the guitar's top, it won't rise or sink if the top moves from changes in humidity. A pair of laser-cut spacers, tapered in increments of two-thousandths of an inch – about half the

thickness of a sheet of loose-leaf paper – are placed into the pockets in the body prior to securing the neck, allowing for precise micro-adjustment of the neck angle. Our ability to easily set every Taylor neck with that degree of accuracy means everything is optimized for incredible intonation and playability. The way the neck joint meets the body – a solid connection of wood surfaces without glue – also optimizes the transfer of tone between the body and the neck and enhances the tonal sustain. For a visual of the mated neck and body components, see page 17.

**Perfection Made Easy**

One of the critical aspects of the Taylor neck design, Bob says, is that both the neck and the body of the guitar must be made with extreme consistency in order for the design to work.

"We had to retool the entire body-making process," Bob explains, "because we live within a really, really tight tolerance."

The same goes for other precisely machined components like the bridge, saddle and nut. Some other guitar companies have to make saddles with varying heights or bridges with different thicknesses in order to get the action closer to what they want. In our case, the geometry of all of our guitars is the same without any compromise. One of the benefits of this consistency is that it makes parts interchangeable for service if necessary.

"If we need to replace a severely damaged neck for an 810 in Amsterdam, we can simply send another 810 neck to our service team there and they can set it up perfectly in minutes," Bob explains.

Our manufacturing also makes the process of setting every neck at the perfect angle easy for our craftspeople in the Final Assembly department at the Taylor factory.

"A person can take their best shot at getting it just right the first time," Bob says, "but when the guitar is strung up the real story is told. If the story is not perfection, we can easily take the neck off and make the slight adjustment."

With a traditional neck attachment, once a neck is glued in place, it's a lot more difficult to adjust to get the angle right. As a result, the guitar can begin its life already structurally compromised.

"In a factory where getting the neck angle right can't be done so easily, a player will end up purchasing a guitar that's not perfect," Bob elaborates. "When a neck angle isn't perfect, more stress is exerted on the neck, which can require a neck reset in its future. The wonderful irony of our setup is that because it's so easy to reset to get perfect at the factory, the neck actually might never need a reset."

Taylor master guitar designer Andy Powers has a deep appreciation for what Bob accomplished from a design and manufacturing perspective, and how transformative it has been in the context of traditional guitar making.

"This is precision machining where you happen to substitute wood for metal," he says. "We're using machines and cutters that were designed for metalworking; we're working within the tolerance levels that you'd see in the aerospace industry."

Bob is proud of the way Taylor's precision engineering approach has enabled the company to simultaneously raise the bar on quality and production volume, without one coming at the expense of the other. The result is the ability to put a better guitar in the hands of more players without compromise.

"Before the current Taylor neck, we always faced the dilemma of quality versus quantity, but this has allowed us to deliver extremely high quality and serve the market quantity-wise at the same time," he says. "We can make hundreds of guitars a day with complete precision and consistency in each neck. And we can do it throughout the entire line, from the Baby through the Presentation Series."

*continued*



**Top down:** The neck heel is shaped on a CNC mill; neck angle spacers being laser cut



A CNC router cuts a precise pocket in a guitar body



**Neck Paddle**  
Supports the fretboard extension for increased stability.

**Dual-Pocketed Neck Block**  
Pockets are precision-routed into a neck block of the guitar body using a CNC mill. The neck will later be inset into the pockets and bolted securely in place.

**Bridge/Saddle**  
Like the neck and body, these are CNC-milled for accurate and consistent dimensions and location. This contributes to our ability to set the precise body geometry on every guitar.

**A N A T O M Y  
O F A T A Y L O R N E C K**



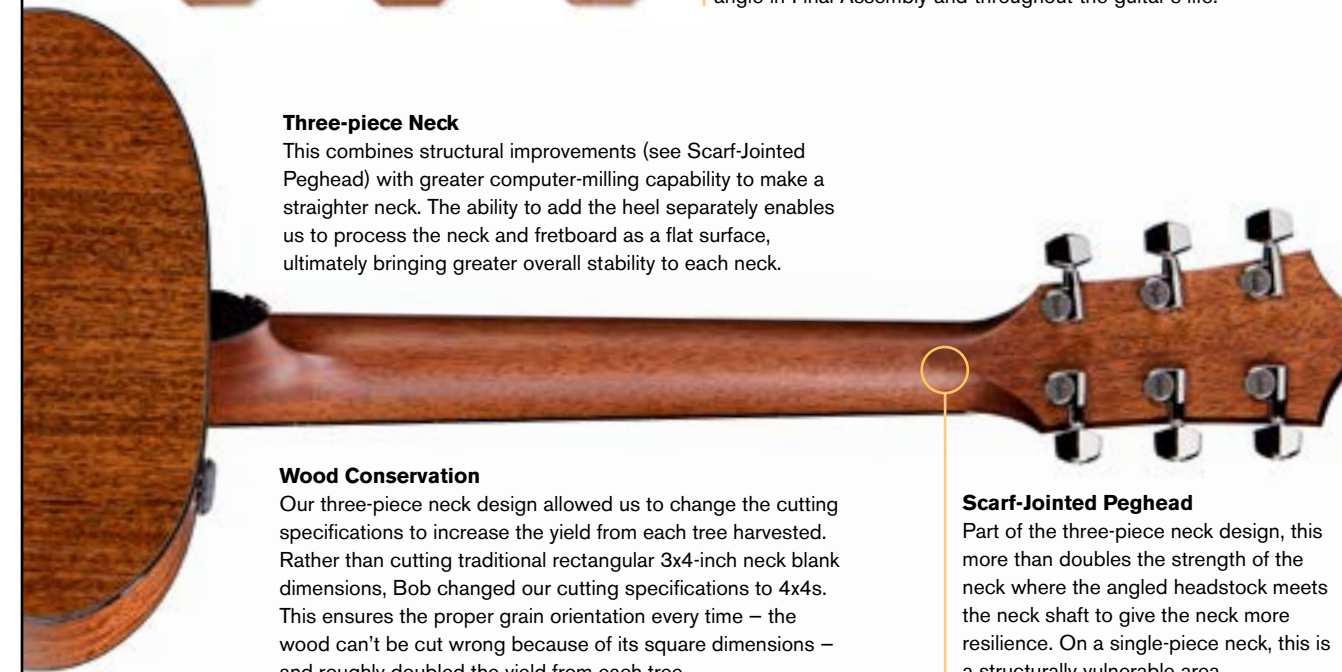
**Neck Angle Spacers**  
Laser-cut and milled in varying increments of .002 inch, these form the basis of setting the perfect neck angle. The spacers are inset (without glue) into the two pockets where the neck will meet the body and can be changed easily to micro-calibrate the neck angle in Final Assembly and throughout the guitar's life.

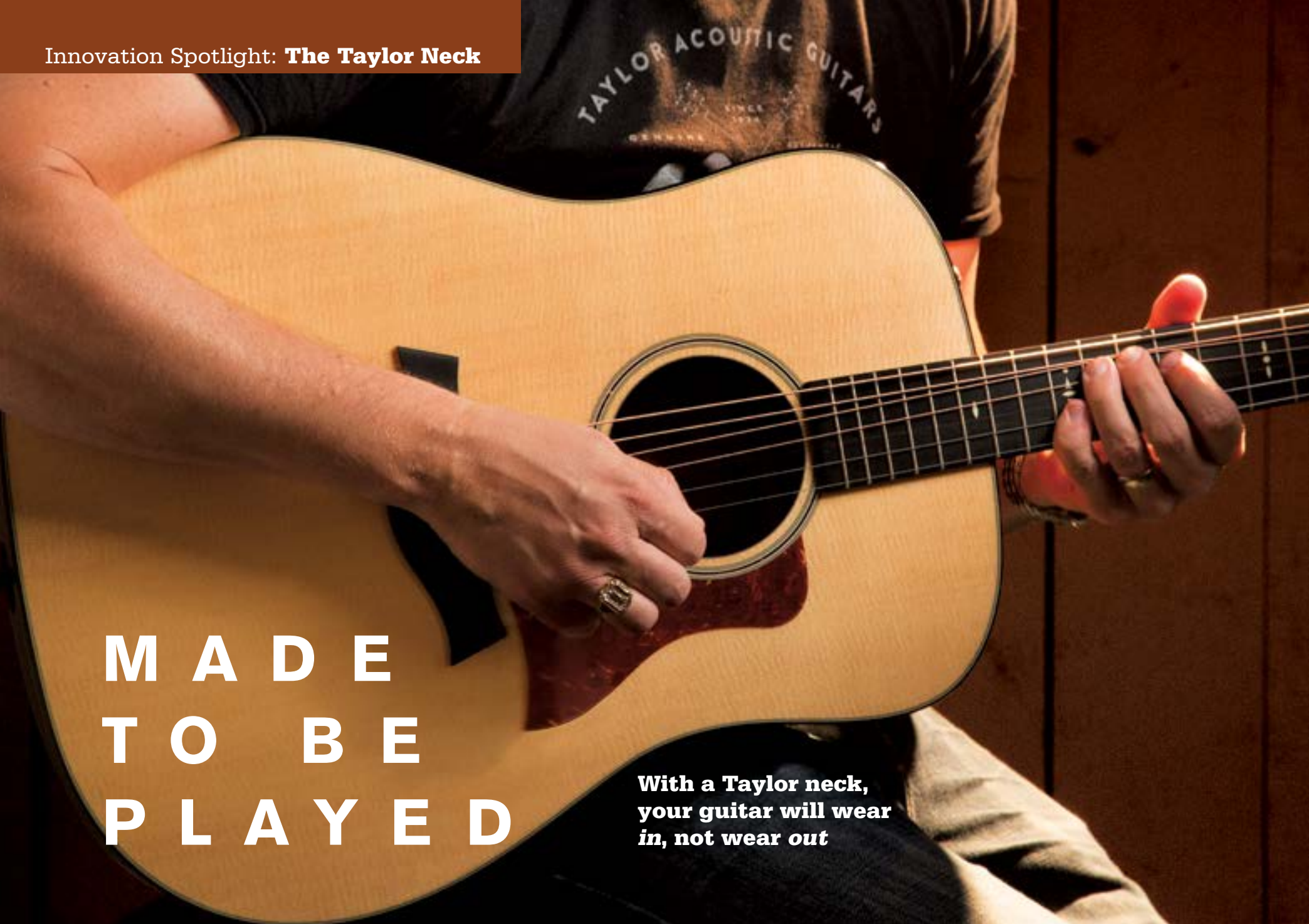
**Three-piece Neck**  
This combines structural improvements (see Scarf-Jointed Peghead) with greater computer-milling capability to make a straighter neck. The ability to add the heel separately enables us to process the neck and fretboard as a flat surface, ultimately bringing greater overall stability to each neck.

**Wood Conservation**  
Our three-piece neck design allowed us to change the cutting specifications to increase the yield from each tree harvested. Rather than cutting traditional rectangular 3x4-inch neck blank dimensions, Bob changed our cutting specifications to 4x4s. This ensures the proper grain orientation every time – the wood can't be cut wrong because of its square dimensions – and roughly doubled the yield from each tree.

**Scarf-Jointed Peghead**  
Part of the three-piece neck design, this more than doubles the strength of the neck where the angled headstock meets the neck shaft to give the neck more resilience. On a single-piece neck, this is a structurally vulnerable area.

**Glue-Free Assembly**  
The glueless, three-bolt assembly ensures a secure wood-to-wood surface connection between the neck and body and a strong transfer of sound between the neck and body. The design also makes it easy to remove the neck for service at any time.





MADE  
TO BE  
PLAYED

With a Taylor neck,  
your guitar will wear  
in, not wear out

As visually inspiring as the aesthetic details of a Taylor guitar might be, our guitars aren't made to hang in an art museum, but to be played. Ultimately, our passion for guitar design aspires to create a smooth harmony between elegant craftsmanship and musical utility. One of Bob's proudest achievements with the Taylor neck was the integration of innovative engineering into the construction of an acoustic guitar without disrupting its traditional aesthetic. That marriage of form and function is part of what makes our guitars especially appealing to players.

Good product design for items that are built to last, especially for things that will be used and experience wear over time, also takes maintenance and repair into account. A well-made car will still need a routine tune-up to keep it

optimized. Andy Powers offers another example from Taylor's design studio: two different belt sanders that sit across the room from each other.

"This little belt sander over here is made in a way that's ultimately disposable," he says. "There's nothing you can adjust on it. When it wears out, I'll have to throw it away. That one over there is a much, much better version. That one will *never* die because, as it wears, I can adjust it – I can replace its bearings, lubricate it, maintain it, and it will never need anything else. A lot of my favorite machines, a lot of the stuff I have in my home shop, some of the pieces we have here, are great examples of wonderful engineering – they're beautiful to look at, they've been running well for more than a generation now, and they will never wear out,

because they were designed with usage in mind. You can replace a small component with another commonly available component, and now the thing is as good as new."

Designing an acoustic guitar to be easily serviceable makes even more sense when one considers that one of the uniquely enjoyable qualities of a well-made acoustic is that, if properly cared for, time and use will actually enhance its tonal properties.

Bob Taylor also looks at design and serviceability through the lens of sustainability.

"What's more sustainable than a guitar that's built to last?" he suggests. "Think of all the things we just throw away."

### Serviceability: The Taylor Advantage

Taylor Customer Service Manager Glen Wolff is an 18-year Taylor veteran with a detailed working knowledge of repairing not only Taylor guitars, but other brands as well. He can personally attest to how much easier Taylor's neck design makes the working lives of our in-house and outside factory-certified repair technicians when adjusting a Taylor neck compared to doing a traditional neck reset.

We asked Glen to compare a traditional neck reset with a Taylor reset. The difference is so dramatic that we've started to refer to our process simply as a neck angle adjustment rather than



a neck reset to differentiate from the labor-intensive connotation of a neck reset among customers.

Glen also clarifies another common area of confusion among customers: the difference between a neck angle adjustment and a truss rod adjustment.

### Traditional Neck Reset

A traditional neck reset is "major surgery" for an acoustic guitar. Necks that are glued on with a dovetail or mortise-and-tenon joint are not easy to separate from the body. The typical method involves removing a fret and channeling steam into the joint through access holes drilled through a fret slot. Blushing finish is a common side effect of the steaming process, so expect some finish touch-up work to be added to the bill.

Refitting the neck also requires a highly experienced and skilled guitar technician. The joint has to be reshaped internally so the pitch of the neck is where you want it after it's glued back in place. All this work and the joint inside may be resting on one or two solid contact points while the rest of the joint is filled with glue. Many people assume a traditional dovetail neck has solid wood-to-wood contact through the entire joint and produces better tone as a result. But between the joint and the use of glue – which can inhibit the transfer of tone – that's not the case. The Taylor neck actually has more direct wood-to-wood contact, and no glue is used.

Once the glue dries and we assume the angle is correct, the job can be finished. This requires replac-

ing the fret that was removed to steam the neck off, and at least a light fret level in that area. The saddle location needs to be checked for intonation, as refitting the neck may have caused it to shift in toward the body as a result of needing to remove material from the heel. If this has happened, the saddle slot will need to be filled and relocated. If there isn't adequate room to move the saddle back without hitting the bridge pin holes, the bridge may need to be replaced with one that shifts the bridge pins and saddle back for proper intonation.

The time it takes will vary depending on the skill level of the technician and what complications he or she runs into along the way. In estimating time, there's the "touch" time, when you're actually working on the guitar, and the let-it-set time required while the steamed wood dries, the finish touch-ups dry, and the new glue joint dries. It's safe to say that even an experienced tech will have several hours of touch time in the job and at least a couple of weeks total to complete it. The typical turnaround time is realistically more like a few months.



After a fret has been removed, steam is channeled through the fret slot into the dovetail neck joint to soften and loosen the glue.



A flat bridge/fingerboard removal knife is used to separate the fretboard extension from the top.



A view of a dovetail neck with some of the residual glue visible after it has been removed. Wood will need to be shaved from some locations of the dovetail and added to other locations in order to adjust the angle.



A view of the dovetail mortise and residual glue after the neck has been removed.

Photos: John LeVan

### Resetting a Taylor Neck

A Taylor neck angle adjustment is not "major surgery." Though the goal is the same as a "neck reset," it is not at all invasive and should not conjure images of the traditional reset with its steaming, reshaping and gluing. It is a standard adjustment on a Taylor guitar. We understand that the neck angle is critical to the feel and playability on any guitar. We also realize that the neck angle will change over time, and we don't want to alter the geometry of the guitar by lowering the saddle and sanding the bridge thinner to keep the action low.

The Taylor neck is held in place with three internal bolts: two in the heel and one on the extension. Inside the joint are two wooden spacers that can be swapped out for different values to change the neck angle. Those spacers vary by .002", giving us the ability to make micro-adjustments and set the angle exactly where we want it. When the angle is correct, the guitar is tuned to pitch and ready to go. There is no delay in waiting for glue to dry. It's important to also note that the pivot point of the neck does not shift into the body with a Taylor neck angle adjustment, so the saddle never has to be relocated.

The Taylor neck can be adjusted in less than 10 minutes.



The removal of a Taylor neck is easy enough that the strings can simply be loosened to adjust the angle.



One of the precision-milled pocket spacers is swapped for another with a different micro-tapered thickness to alter the angle.



The neck is easily reattached through the soundhole using a secure three-bolt assembly.

continued

**Neck Angle Adjustment vs. Truss Rod Adjustment**

In speaking with guitar owners over the years, we've found that a neck angle adjustment often gets confused for a truss rod adjustment when in fact they are two different things.

A **neck angle adjustment** alters the angle or pitch of the neck in relationship to the body. With the neck adjusted straight, a good neck angle (Fig. 1) will show the action progressively getting slightly higher as you play up the neck. When the angle is too low (Fig. 2), the action up the neck increases substantially. When the angle is too high, the action remains the same or gets lower as you play up the neck.

A **truss rod adjustment** (Fig. 3) is made to alter the curve or bow of the neck. We refer to a neck as being either straight, front bowed, or back bowed. We may also say a neck has

"too much relief," meaning it is bowing away from the strings, which makes for high action especially around the 7th fret, the middle of the neck.

Having both a good neck angle and a properly adjusted truss rod makes for a comfortable-playing guitar all the way up the neck.

**How to Get a True Reading of the Neck Angle**

As part of our repair process, before evaluating the neck angle, we must first tune the guitar as it will be played, whether that's standard tuning or an alternate tuning, and adjust the truss rod so the neck is straight. We then judge where the neck is pointing in relation to the bridge. It takes a trained eye to evaluate the neck angle properly and not get a false sight reading. We must also evaluate the humidity, as a dry guitar might have a sunken top and give

a "false" indication of a high neck angle. For these reasons, we suggest having your neck angle evaluated by a certified Taylor repair technician whenever your action changes.

**One Final Note**

As easy as a Taylor neck angle adjustment might sound, it takes a Taylor-trained service technician to do it correctly. Otherwise the pocket can be damaged and unnatural stress can be placed on the neck joint. In addition to our Factory Service Center, all Taylor-certified service technicians have the training and parts to properly perform this type of repair. For a complete list of authorized Taylor service centers, visit [taylorguitars.com/support/service-centers](http://taylorguitars.com/support/service-centers)

**6 Reasons to Love the Taylor Neck**

**You don't have to hope you find a good one.**

Our precise manufacturing tolerances should give customers great confidence in the consistent quality of the Taylor playing experience. Especially people who don't live in proximity of a Taylor dealer and are thinking about purchasing a guitar online without having a chance to play it first. The same goes for customers thinking of placing a special order.

**It can change when you change.**

Our necks can be fine-tuned to suit different playing styles. If your playing approach shifts over time – maybe you go from playing in a bluegrass band to solo fingerstyle – a service technician can make a slight setup adjustment if necessary so the guitar responds in the best possible way.

**Serviceability means no separation anxiety.**

Owners of other brands of guitars who send their guitar in for service might not see it for a month or more. A Taylor neck angle adjustment means a fast turnaround time.

**The guitar will hold its value over time.**

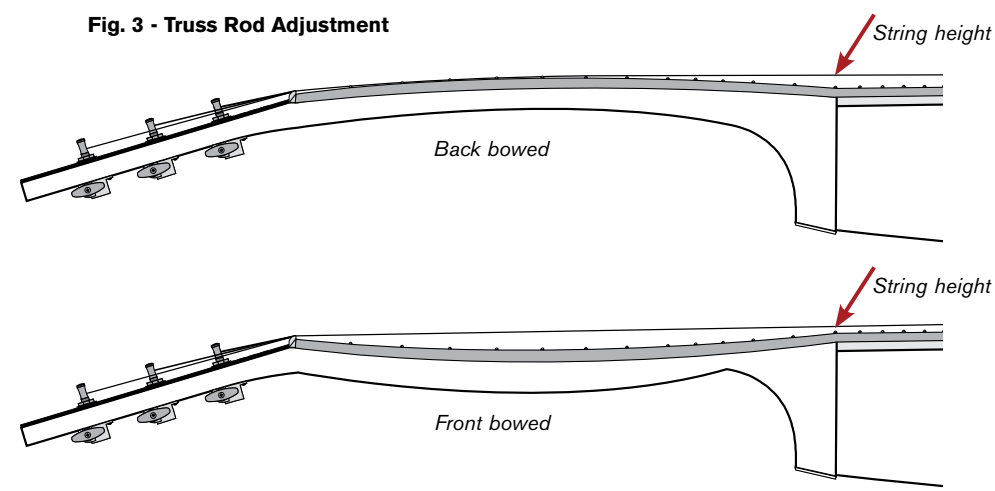
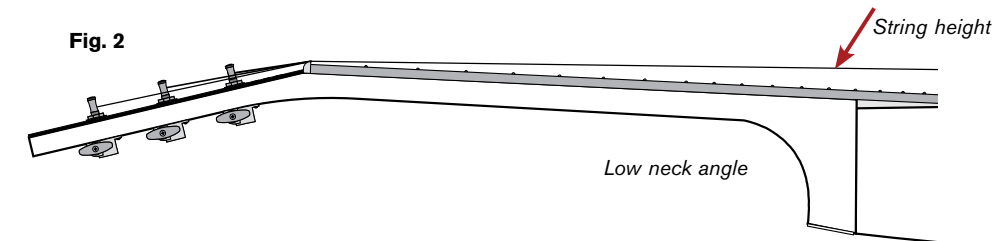
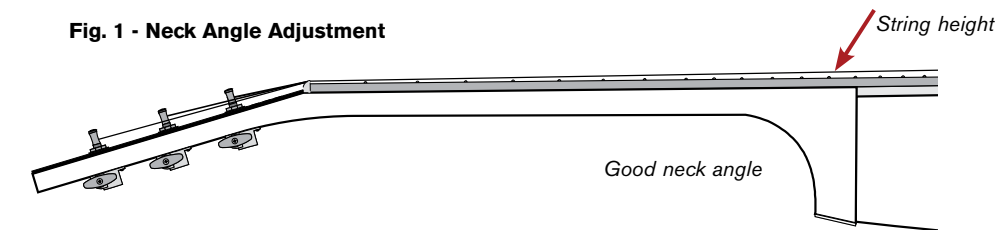
The neck of a Taylor guitar can be removed for service many times without ever compromising its structural integrity. The ability to keep it in healthy playing condition throughout your life makes it a great investment, especially since the sound will mature with time if you care for it.

**It can adapt to climate change.**

Whether you're a globe-trotting musician whose guitar experiences a wide range of climate conditions or you simply move to a different type of climate, the ability to adjust your neck angle (along with humidity control measures) is a major component in restoring your guitar to optimal playing condition.

**A simple adjustment can bring it back to life.**

Maybe you've owned your Taylor for a few years and now that it's had a chance to mature and settle into its environment, something about the feel or sound seems slightly off. Ten minutes with a Taylor technician might be all you need to get it dialed in and get yourself instantly re-inspired.



**FIELD NOTES FROM A TAYLOR SERVICE TECHNICIAN**

Nashville-based guitar technician John LeVan is the proprietor of LeVan's Guitar Services. He's also the founder and Instructor of Lutherie Arts at The Guitar Services Workshop ([guitarservices.com](http://guitarservices.com)), and a Gold-level certified Taylor repair technician with wide-ranging expertise on servicing a variety of guitar brands. He has written several guitar repair books, all published by Mel Bay. His bestseller, *Guitar Care, Setup & Maintenance*, is a detailed guide with a forward by Bob Taylor. He also conducts guitar repair workshops, has created service-related DVDs, and has written for *Acoustic Guitar* magazine, *Guitar Sessions* magazine, and *Premier Guitar* magazine. We asked him to share his thoughts on neck angle adjustments and how Taylor's process compares to others.

Since 1994, I have had the honor of handling warranty repairs for Taylor Guitars. I love when one of my clients walks in with a Taylor because I know it's going to be an easy project. The guitars are designed with both the player and the technician in mind. For the player, they get a great-sounding guitar that plays great. For the technician, we get to work on a well-built guitar that is easy to set up/work on. One of the many Taylor concepts that amazes me is the design of the neck joint. The early Taylor necks were simple to reset; the current neck design makes this task even easier to perform with accuracy.

Believe it or not, almost every guitar will need a neck reset at some point. I have reset the neck on hundreds of guitars, including dovetail, mortise-and-tenon, and bolt-on. The Taylor neck design allows us technicians to work more accurately, efficiently and without the risks associated with glued-in necks.

**What's the Neck Angle?**

The neck angle is simply the angle of the neck in relation to the bridge. When the neck angle is correct, the guitar will play easily without compromising the volume or dynamic of the instrument. If the neck angle is incorrect, the guitar will be more difficult to play and the volume and dynamics of the guitar will be dampened. Below are some examples.

**Low Neck Angle**

When the neck angle is set too low, the guitar will typically have a short saddle and high action. The high action makes the guitar difficult to play, and the short saddle diminishes the volume and dynamic range of the guitar. In addition, the high action will cause intonation issues, and the guitar will play out of tune.

**High Neck Angle**

If the neck angle is too high, the opposite effect occurs. Now the saddle is very tall, but the action is too low. This will cause string rattle, and (as with a low angle) the volume and dynamic range of the guitar will be diminished. In turn you end up with a "thin"-sounding guitar.

The optimum neck angle is when the tops of the frets line up with the top of the bridge. The saddle will be at the correct height, and the guitar will produce the maximum volume and dynamic range. The height of the saddle is a critical element. If the saddle is too tall or too short, the

volume and tone will be diminished. The concept that higher action produces more volume is a myth. A correct neck angle and saddle height will produce more volume and dynamic output.

**Playing Style**

Playing style is also part of this equation. Someone who is heavy-handed might want slightly higher action. For this playing style, we could set the guitar up with a slightly lower neck angle.

For a player with a light touch, we might set up their guitar with slightly lower action and a higher neck angle. In both cases, the saddle remains (relatively) the same height, even though the action is slightly different.

I ask my clients a lot of questions about their playing style before I work on their guitars. Having my clients play for me also provides a lot of good information so I can get an idea of how they play. What one person might consider a medium strumming attack might seem rather aggressive to the next person (and vice versa). So watching how someone plays gives me a better understanding of their playing style. In turn, this makes it easy for me to adjust the guitar to their style.

**Dovetail Neck Joints**

The dovetail neck joint is one of the most challenging to work on because the process is much like major surgery. To remove the neck, the fretboard extension needs to be heated up to separate it from the top of the guitar and then steam is used to remove the heel from the body. After allowing the guitar to dehumidify, material is removed from the heel, and the tenon is rebuilt before gluing it back into the guitar. Many things can go wrong during this process. The heel can break, the inlays can pop out of the fretboard (or melt), and the heel block and/or braces can separate from the body, not to mention the amount of finish touchup that is required! Keep in mind that we're pumping a great deal of heat and water into the joint to remove the neck, which may cause warping. Once the neck is glued in, it is difficult to predict how it will react under pressure. Another big issue is the intonation. The amount of material you remove from the heel will also affect the intonation, because the distance from the bridge saddle to the 12th fret has been changed. As you can see, many variables can make this process difficult, and at best, result in an educated guess.

**The Taylor Neck Joint**

Taylor's neck design has certainly made my job as a repair tech much easier. With about a hundred "NT" resets under my belt, they are by far the most logical design. The very first NT reset I did, I kept thinking, this is way too easy; I must be missing something! Not only was it a fast reset, but there's no carving, sanding, finish touchup or guessing. With the Taylor-designed neck joint, resetting the neck is simple and non-invasive. Once you've determined the current angle versus the correct angle, all you need to do is replace two shims. That's all! Three bolts hold the neck on and two shims determine the angle of the neck. Taylor has engineered their shims using an accurate and easy way to know which shim goes where and what value each shim should be to correct the neck angle. The design team at Taylor also thought about how a neck reset affects intonation. With the Taylor design, the intonation is never an issue because the distance from the bridge to the 12th fret does not change, even when the angle of the neck does. As for finish touchup, there isn't any. At the most, we add a little bit of putty to fill in the very small gaps around the joints. In every aspect, the Taylor neck joint is superior to all others.

**Repair Cost vs. Value**

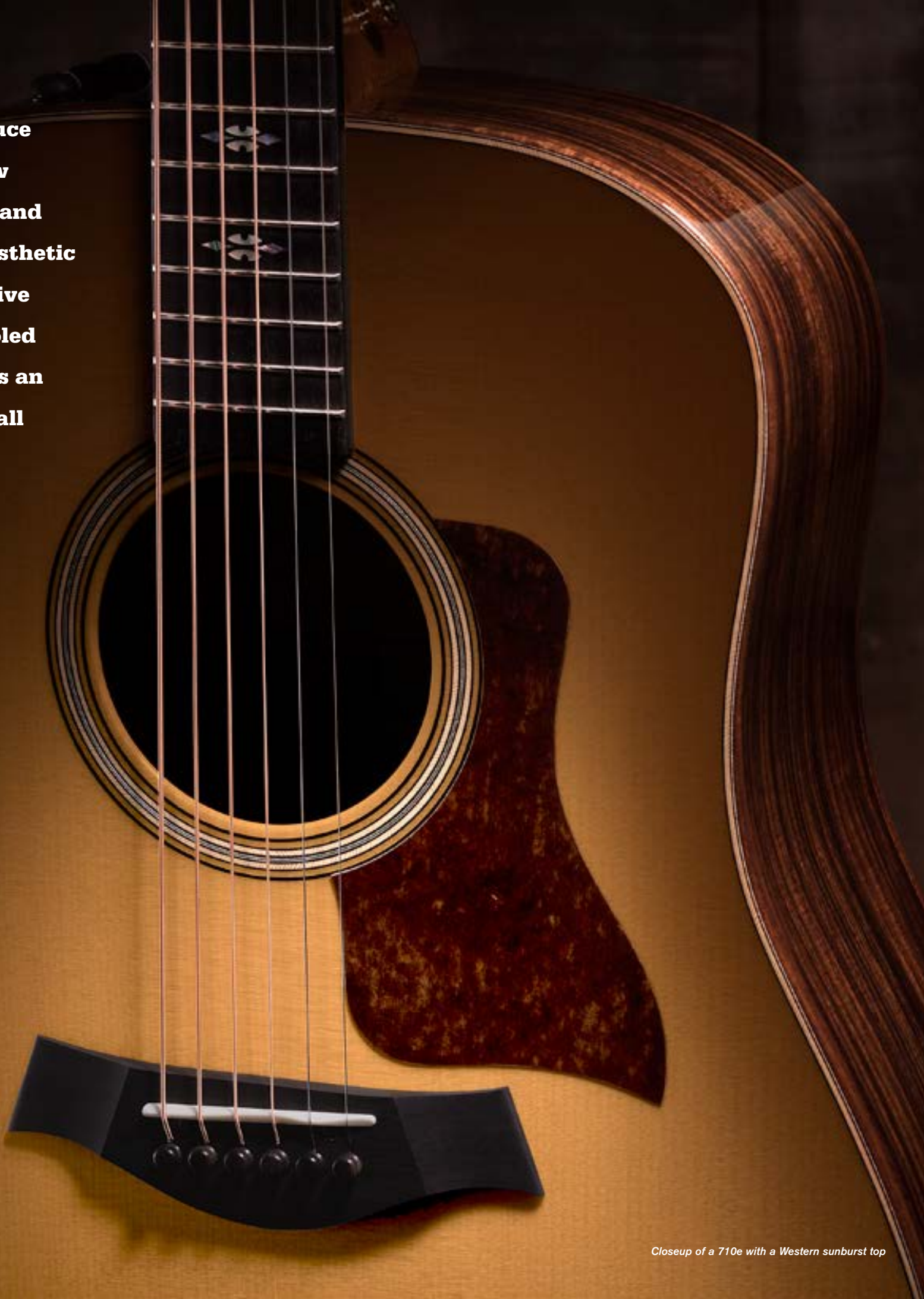
Repair cost is another significant consideration. To reset a dovetail neck joint, I charge anywhere from \$400 to \$700 (including a setup). This doesn't include the cost of a new saddle, etc. To reset the neck on a Taylor (including a setup), it costs a little more than the average setup (I charge \$60-80 for an acoustic setup). Time is another consideration. Dovetail neck resets may take several weeks to reset, whereas the Taylor neck takes about 20 minutes (coffee break included).

If you have an inexpensive guitar with a dovetail joint that needs a reset, it is probably not cost-effective to do. Neck resets are affordable even on the least expensive Taylor guitars, making them easy to work on and providing a great value now and into the future. **W&S**

# ROSEWOOD REBOOT

**Lutz spruce tops, new bracing, and warm aesthetic details give the retooled 700 Series an identity all its own**

By Jim Kirlin



Closeup of a 710e with a Western sunburst top

**O**ur design team has been at it again.

This time they've set their sights on our rosewood/spruce 700 Series, one of the few remaining guitar classes in the Taylor acoustic line that hasn't undergone a makeover in the past couple of years. Even by Taylor standards, it's been a prolific stretch of design creativity. Yet it shouldn't surprise the Taylor faithful. It's what we're wired to do.

"We don't ever want to lose our creative drive," Bob Taylor stressed back in early 2014, when Taylor tipped the first domino by rolling out a dramatic overhaul to the flagship rosewood/spruce 800 Series in celebration of the company's 40th anniversary. "We want to consistently make better guitars."

Our not-so-secret weapon of late has been guitar architect Andy Powers, whose inspired musical blueprints, coupled with Bob's manufacturing expertise, have proven to be a winning recipe for turning nuanced musical ideas into playable form. If Bob and Andy's overarching vision has been to make all of our guitars better, a more pointed goal has been to introduce more musical diversity within the line – and often within each series – to appeal to the different preferences among players.

The redesign of the 700 Series comes a year after our luxurious update of another rosewood series, the 900, in 2015. It's a testament to rosewood's enduring musical appeal that it's been a featured tonewood in three premium classes of Taylor models (700 through 900 Series) for years. Its popularity has also inspired our periodic use of rosewood for limited editions, often as value-added offerings made available at a more accessible price point. In fact, this summer we're taking things a step further: We've added rosewood models to the 400 Series as a dedicated tonewood option alongside our ovankol models. If you take into account our layered rosewood 200 Series and select 200 Deluxe and GS Mini models, there's now a rosewood guitar available at nearly every price point in the Taylor line. Yet each has something unique to offer.

## Lutz Spruce and Performance Bracing

As with our other design initiatives, Andy's approach with the 700s emphasized improving the fundamental musical properties – making them louder and more responsive, among other things – while also outfitting these rosewood guitars with different musical personalities than their 800 and 900 Series counterparts. Rather than deploying the full complement of tone-enhancing refinements applied to

those series, Andy focused on a trio of voicing upgrades that work together to exceed the sum of their individual parts: Lutz spruce tops, voiced with our new Performance bracing, using protein glue for the bracing and bridge components. The first two features made their debut on our recently revoiced mahogany 500 Series; the protein glue spec was borrowed from our 600, 800 and 900 Series updates.

The Lutz top/Performance bracing pairing has been well received on the 510e and the 516e. As we mentioned in our story on the 500s last issue, Lutz, a hybrid of Sitka and White (Engelmann) spruce, is not only adaptive to different microclimate conditions in the Pacific Northwest, it also produces a powerful tonal response that's comparable to older, high-grade

Adirondack spruce. The Performance bracing is adapted in subtle ways for each shape, and the design incorporates a two-piece bridge plate made of two materials, spruce and maple. Together, the top, bracing and glue optimize the tonal response. Compared to the high-fidelity sonic detail of an equivalent 800 or 900 Series model, the more streamlined design elements of a 700 Series guitar tend to dial things back slightly. There's still plenty of rosewood richness, but with a bit more fundamental, rootsy focus that will appeal to certain types of players.

"These guitars can handle a hard attack without flinching," Andy says. "They are unbelievably good stage guitars for this reason. They don't need to be played hard to sound good; they simply focus on a dif-

ferent kind of musical goodness. Their strong fundamental quality gives back to the player everything they put in, and then some."

The model with the biggest personality change is the Dreadnought 710e. Its modified design specs – featuring a slotted peghead, 24-7/8-inch scale length, and V-carve neck – mirror those of the new 510e, which has been making waves among dealers and customers. For many, the unique appeal is the blend of warmth and power with an easy-feeling playing experience. One of Taylor's sales reps, JR Robison, says the sight of a Dreadnought with a slotted headstock alone grabs people's attention.

"Once it's in a player's hands, they usually comment on the neck's comfort," he says. "It's not immediately

obvious to them what's different about it, just that it's different – in a good way. Tonally, it's warm, huge, mellow, loud – seemingly conflicting adjectives that all fit."

The 710e playing experience is similar, with the softer handfeel translating into a more intimate sensation. Or, as one Taylor staffer put it after a test-drive: "I feel like it's more about playing for me than for you."

At the same time, Andy wanted to offer a version that would appeal to a more traditional Dreadnought player, so he made an alternative prototype featuring a solid peghead, longer 25-1/2-inch scale length, standard neck profile, and narrower 1-11/16-inch nut width. This longer-scale edition strengthens the Dreadnought's already robust attack. It also gives players a snappy handfeel, in contrast to the slinky fingering and intimate warmth that accompany the shorter scale length of the standard model. This package is available on request by dealers and players as a no-cost option.

Other models within the 700 Series include the Grand Auditorium 714(ce), Grand Symphony 716(ce), and Grand Concert 712(ce), including a 12-fret edition, along with a 12-string 756ce and nylon-string 712ce-N and 714ce-N.

## New Appointments: Earthy Meets Elegant

With three premium classes of rosewood guitars in the Taylor line, outfitting each series with a distinctive aesthetic package has always been an important way to distinguish them. The 900 Series showcases the upper echelon of detail-rich sophistication. The 800 Series strikes a finely calibrated balance between its classic Taylor heritage and contemporary design details that project a refined modern look. In recent years the 700s have gone the Americana route with a dark Vintage Sunburst top and ivoroid-rich appointments. With his redesign, Andy again tapped a vintage era of guitar making to invoke a roots-rich aesthetic with earthy brown hues, yet reinterpreted classic design elements in a fresh way. He started with the unique appearance of the rosewood and spruce selected for the series.

"In a nutshell, the rosewood used for the 700s visually has more flamboyant, individualistic character," he says. "You'll notice wider grain with more color variation and streaking. For the 800 and 900 Series, you'll see progressively tighter grain and more refined, uniform color. The 900 Series wood is very conservative and



L-R: 710e (sunburst top), 714ce, 712e 12-Fret (sunburst top)

continued



**Top:** Three-ring rosette featuring bias-cut, Herringbone-style Douglas fir strips with maple and black trim; **Above:** Non-figured koa binding with top edge trim of bias-cut Douglas fir, black and maple; **Right:** The new weathered brown pickguard. **Opposite Page (top down):** "Reflections" fretboard inlay; A non-figured koa back strip matches the binding

consistent-looking rosewood. To personify the grading differences, the 900 Series wood wears crisply tailored and pressed suits; the 700 Series wood wears chaps and is ready to saddle up."

The sets of Lutz spruce display a unique appearance compared to Sitka spruce, with a creamier complexion (similar to European spruce) and attractive cross-flecking that glimmers as light reflects off it. The standard model features a natural-finish top, with an optional Western Sunburst top. The new burst is lighter around the edges than the former Vintage Sunburst, instead featuring more of a honey-brown color gradient.

Andy also designed a new pickguard color treatment. The mottled brown hues and matte finish suggest the textured patina of weathered leather. The binding is light, non-figured Hawaiian koa (including a back strip), with inlaid top edge trim of bias-cut end-grain Western Douglas fir complemented with maple/black accents. A three-ring rosette incorporates a pair of mirrored, bias-cut fir strips that create a herringbone-style motif with maple/black trim. A new fretboard inlay pattern, "Reflections," featuring pale green abalone, was inspired by two traditional inlay shapes (diamonds and ovals) that Andy integrated in a new way. Each component of the inlay appears to be a reflection of its opposing piece, creating a four-way symmetry with a progressive motif up the neck.

As a whole, Andy says, the new 700 Series strikes a cohesive balance of boldness and tradition.

"Sonically these guitars push into new territories with their robust response and dynamism, while remain-

ing true to the classic rosewood and spruce character we adore," he elaborates. "This aural impact is reflected in the aesthetic portrait of these instruments, where each element is a new interpretation that remains faithful to the tradition of flattop guitar design."

Look for the new 700 Series at your local Taylor dealer starting in late July. For more photos, model descriptions and specs, visit [taylorguitars.com](http://taylorguitars.com)

#### Available Models

710e  
710ce  
712ce  
712e 12-Fret  
712ce 12-Fret  
712ce-N  
714e  
714ce  
714ce-N  
716ce  
756ce

#### 700 Series Specifications

**Back/Sides:** Indian Rosewood

**Top:** Lutz Spruce

**Bracing:** Performance with Protein Glue

**Finish:** Gloss Back/Sides, Top (6-mil)

**Color Options:** Natural w/ Optional Western Sunburst Top

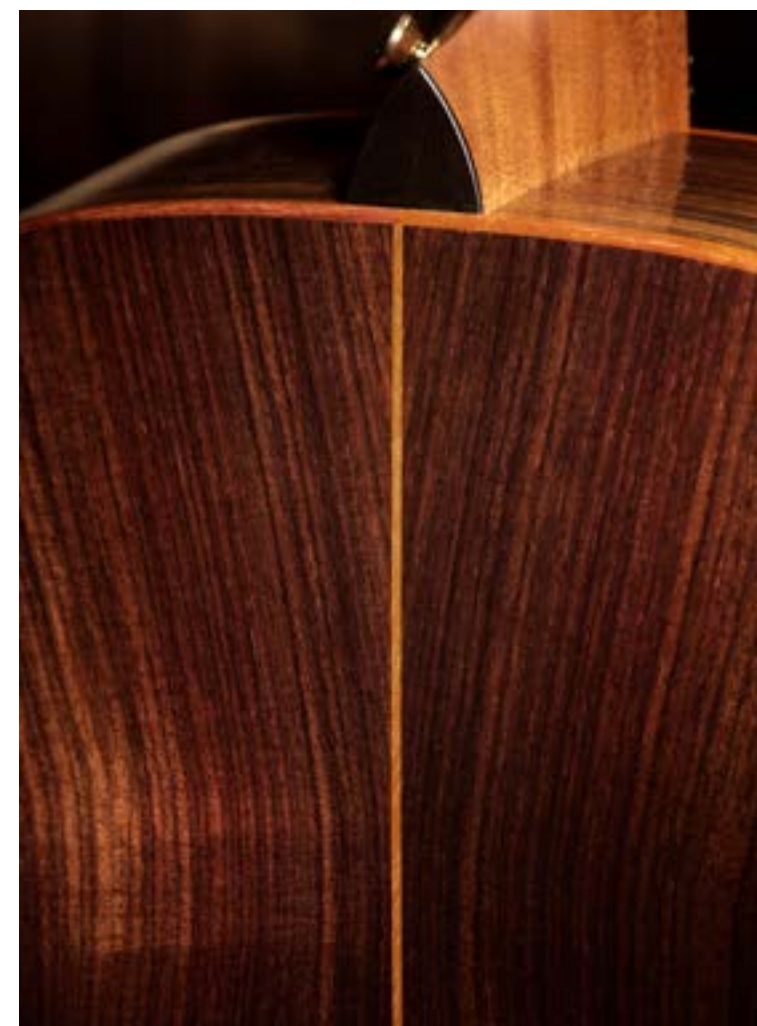
**Rosette:** 3-Ring Herringbone with Douglas Fir/Maple/Black

**Binding:** Non-Figured Koa

**Top Edge Trim:** Douglas Fir w/ Maple/Black Trim

**Fretboard Inlay:** Green Abalone "Reflections"

**Pickguard:** Weathered Brown



#### Straight from the Source: Indian Rosewood

Indian rosewood (*Dalbergia latifolia*) took center stage as a tonewood for acoustic guitars starting in the late 1960s. It was embraced as an alternative to Brazilian rosewood, whose supply had been depleted due to the overharvesting of large old-growth trees in Brazil. (Brazil banned the export of Brazilian rosewood logs in the late '60s, and in June of 1992 it was classified as an endangered species in Appendix I of CITES.)

Historically, Indian rosewood has been cultivated as a shade tree for tea and coffee on plantations in India. Many of the plantations are government managed, and the rosewood trees are harvested selectively and typically sold through government auctions, with additional logs sold through private sources who hold legal forest permits.

Taylor has worked with the same Indian rosewood supplier, Gemwood, for the past 38 years. Like Taylor, Gemwood's operation began on a very small scale, with one man, Mahadev Gopalakrishnan, who founded his business the same year as Taylor, in 1974, and started cutting wood with a single Wood-Mizer and band saw. Over the years, Gemwood's business has grown steadily yet remained a family-run enterprise, with Mahadev's two sons, Dev and Lak, taking over more of the operation (Mahadev is now in his 70s).

Gemwood's mill is based in the city of Cochin, a major port city on the southwestern coast of India in the state of Kerala. (Side note: Cochin International Airport was the first airport in the world to operate completely on solar power.) With Dev and Lak directing more of the operation, the business has invested in CNC mills and other cutting-edge technology, and diversified their product mix to include decorative plywood, engineered flooring, knife handles, and other items. Gemwood now employs 200 people, about half of whom work on the rosewood side of the business to supply musical instrument makers.

Among the recent investments Gemwood has made to improve their rosewood milling process was the purchase of a thin-cutting, precision Wintersteiger band saw that uses multiple blades to cut a slab of rosewood. The saw has increased the yield by more than 20 percent due to the thinner kerf of the blades.

In March, Taylor Director of Supply Chain Charlie Redden and Wood Purchasing Manager Chris Cosgrove traveled to Cochin to visit the Gopalakrishnan family and employees at the mill. Visiting our suppliers at their facilities is an integral part of our supply chain management process, as it provides a direct way to discuss quality standards, detail our supply specifications, and maintain a clearer picture of the sourcing realities in the country where the company operates.

"Even though we've done good business with Gemwood for a long time, our visits reinforce our quality standards," Charlie says. "Visiting any of our suppliers helps us understand their business challenges, successes, new products, new methods, government regulation in that country, and learn about changing laws and regulations. As a matter of Taylor policy, we always want to ensure that our suppliers continue to operate legally and ethically. We also inspect working conditions and employee happiness and engagement. Gemwood does a great job."

Charlie says it takes about six years with many restrictions to open a new sawmill in India.

"The Indian government does this to keep the number of operators low, in an effort to protect against deforestation," he says.

In addition to cutting our solid rosewood sets, Gemwood also cuts and supplies the rosewood veneer we use for our 200 Series, along with sapele veneer (they purchase logs from Africa).



**Top down: (L-R)** Taylor's Chris Cosgrove, Lak, Dev and Mahadev Gopalakrishnan, and Taylor's Charlie Redden at the Gemwood mill; a rosewood log is cut into slabs; freshly sliced sheets of rosewood veneer are held flat before being put through a dryer to flatten them permanently

Shape Spotlight: **Taylor Dreadnoughts****SWEET  
FLEET****Our nuanced guitar designs bring more diversity than ever to Taylor's Dreadnought family**

The girthy Dreadnought stands out as a guitar of substance. Heck, it was named after a battleship. Its iconic heritage boasts a century-long timeline that's tightly entwined with the history of the steel-string guitar itself. Its broad waist helps pump out a strong acoustic voice anchored by low-end sonic power, with a singing upper midrange. Early on, a Dreadnought gave guitarists a workhorse to compete with the tonal output of banjos, mandolins and fiddles, especially before acoustic pickups were prevalent. Over the years, it has continued to serve as a staple for bluegrassers, folkies, singer-songwriters, rockers and others looking for their musical voice to be heard.

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**"The new 510 definitely breaks new ground for Taylor dreads. The sound is still crisp and punchy with a great low end, but the shorter scale length and slotted headstock give it a distinctly easy feel that took me by surprise."**

**Mike Sparber  
Manager, Sylvan Music, Santa Cruz, CA**

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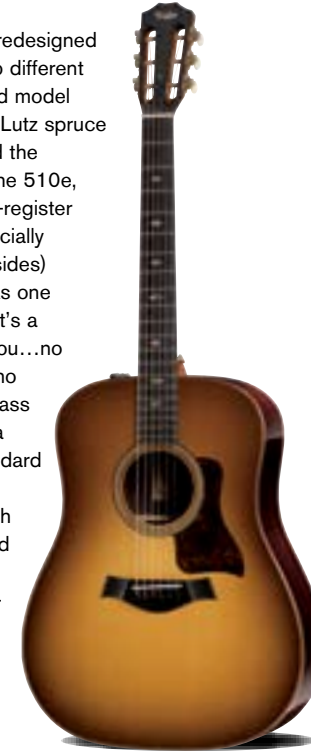
When Bob Taylor inherited the shape as a young luthier, almost immediately he applied his own instinctive design touches to make the guitar even more musically appealing. First came sleek, easy-playing necks that enabled fleet-fingered flatpickers to glide up and down the fretboard. He tinkered with the bracing to bring more balance and definition across the tonal spectrum so the guitar wasn't too muddy or bass-dominant. Aesthetically, he and longtime Taylor designer Larry Breedlove refined the body's traditionally boxy contours into a more elegant form that fit harmoniously into the family of proprietary Taylor shapes. A cutaway option and onboard electronics brought other modern amenities to better serve the evolving needs of players.

The arrival of Andy Powers five-plus years ago further catalyzed Taylor's tone-enhancing design pursuits, including our Dreadnoughts, across the entire guitar line. As a result, Andy's fine-tuned voicing refinements have managed to coax a more uniquely defined musical personality from each model, in the process redefining what a Dreadnought can do. Taylor's Dreadnought family now showcases a more versatile mix of musical flavors and playing applications than ever before. Beyond the differences in tonewoods and bracing from series to series, variations on neck details like scale length, nut width and neck profile translate into other distinctive nuances of feel and sound. We've rounded up an assortment of great Taylor Dreadnought options, with highlights of what makes each unique.

**710e**

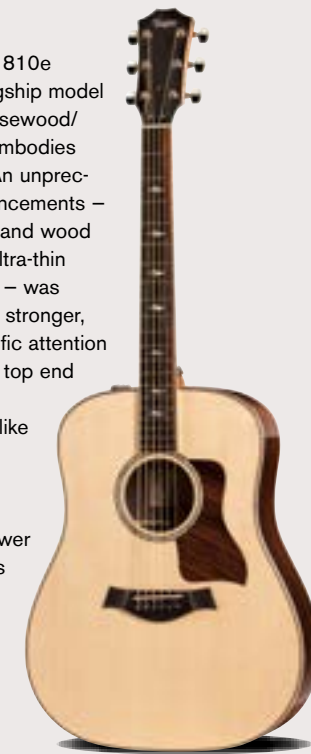
**Back/Sides:** Indian Rosewood  
**Top:** Lutz Spruce  
**Scale Length:** 24-7/8"  
**Neck Profile:** V-carve  
**Nut Width:** 1-3/4"  
**Peghead:** Slotted

**Playing Profile:** The freshly redesigned 710e actually is offered in two different player packages. Our standard model parallels the 510e, sporting a Lutz spruce top, Performance bracing, and the same neck dimensions. Like the 510e, the appeal is the blend of low-register Dreadnought goodness (especially with the rosewood back and sides) with an easygoing handfeel. As one of our Sales reps remarked, "It's a dreadnought that plays with you...no wrestling required." Players who want a more traditional bluegrass feel can order the 710e with a 25-1/2-inch scale length, standard neck profile, 1-11/16-inch nut width, and solid peghead. With the extra string tension created by the longer string length, it uncorks a more robust projection that responds well to an aggressive attack, especially with the sonic headroom of the Lutz spruce top.

**810e**

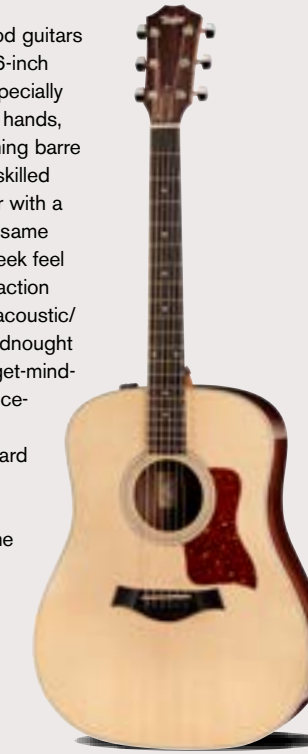
**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce  
**Scale Length:** 25-1/2"  
**Neck Profile:** Standard  
**Nut Width:** 1-3/4"  
**Peghead:** Solid

**Playing Profile:** Our current 810e updates what became the flagship model of Taylor's early years. As a rosewood/spruce Dreadnought, it also embodies the classic bluegrass guitar. An unprecedented suite of voicing enhancements – including customized bracing and wood thicknesses for each shape, ultra-thin finish, protein glues and more – was deployed in 2014, revealing a stronger, richer all-around sound. Specific attention was given to punching up the top end for more potent, well-defined lead work. It lets players who like to solo cut through with other acoustic instruments. If you're looking for a turbo-charged Dreadnought with a mix of power and high-fidelity sound, try this acoustic cannon. For a more dressed-up version with the added feature of a contoured armrest, check out the 910.

**210e-DLX**

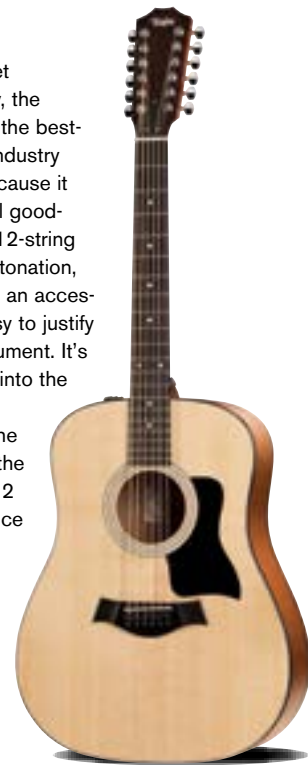
**Back/Sides:** Layered Rosewood  
**Top:** Solid Sitka Spruce  
**Scale Length:** 25-1/2"  
**Neck Profile:** Standard  
**Nut Width:** 1-11/16"  
**Peghead:** Solid

**Playing Profile:** Our layered-wood guitars feature a slightly narrower 1-11/16-inch nut width, which some players, especially beginners and others with smaller hands, will find more comfortable for forming barre chords and other fretwork. Other skilled flatpickers who learned on a guitar with a 1-11/16-inch neck and crave that same string spacing will love the fast, sleek feel of the Taylor neck profile and low action up the neck for picking runs. The acoustic/electric 210e-DLX delivers a Dreadnought that locates a sweet spot for budget-minded players looking for a performance-caliber instrument with aesthetic appeal. The solid spruce soundboard produces full-voiced tone that will improve with age, while the fit and finish are top-notch, with handsome rosewood veneer used with the layered wood back and sides, a full-gloss body, Diamond inlays, and crisp white binding. Our Expression System® 2 pickup outfits this Dreadnought with great-sounding amplified tone for all kinds of gigging adventures.

**150e**

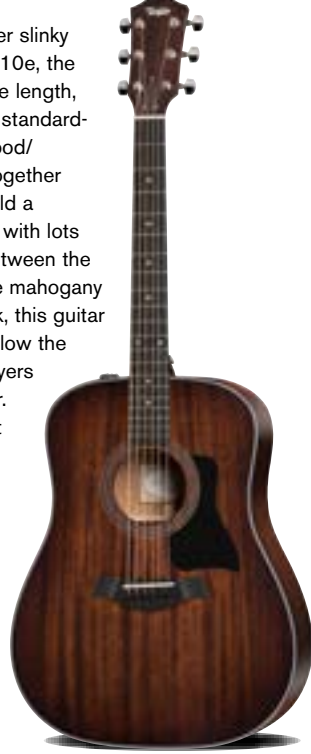
**Back/Sides:** Layered Sapele  
**Top:** Solid Sitka Spruce  
**Scale Length:** 25-1/2"  
**Neck Profile:** Standard  
**Nut Width:** 1-7/8"  
**Peghead:** Solid

**Playing Profile:** The best budget 12-string you'll find for the money, the fun-to-play 150e continues to be the best-selling 12-string in the acoustic industry (source: MI SalesTrak). That's because it packs all the fundamental musical goodness a player could want from a 12-string guitar – playability, impeccable intonation, lush double-course voicing – into an accessible price point that makes it easy to justify as a secondary, role-playing instrument. It's also not too precious to take out into the world ("Wish You Were Here" never sounded so good around the campfire). Last year we updated the pickup to our Expression System 2 to make it a great stage accomplice for bringing that rich 12-string acoustic texture to a few songs during a gig, or for adding some acoustic shimmer to a recording.

**320e**

**Back/Sides:** Tasmanian Blackwood  
**Top:** Mahogany  
**Scale Length:** 24-7/8"  
**Neck Profile:** Standard  
**Nut Width:** 1-3/4"  
**Peghead:** Solid

**Playing Profile:** Here's another slinky Dreadnought option. Like the 510e, the 320e sports a 24-7/8-inch scale length, but with a solid headstock and standard-carve neck profile. The blackwood/mahogany tonewood pairing, together with the Dreadnought body, yield a response that's clear and loud, with lots of woody midrange warmth. Between the softer handfeel and the way the mahogany top smoothes out a lively attack, this guitar will be kind to beginners and allow the nuances of more advanced players to come through loud and clear. Other 300 Series Dreadnought options include the spruce-top 310e and the blackwood/mahogany 12-string 360e (the latter featuring a longer 25-1/2-inch scale length and 1-7/8-inch nut width), which blends husky low-end power with thick octave shimmer.

**410e-R**

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce  
**Scale Length:** 25-1/2"  
**Neck Profile:** Standard  
**Nut Width:** 1-11/16"  
**Peghead:** Solid

**Playing Profile:** Indian rosewood is a new member of our 400 Series, joining ovankol as one of two back and side tonewood options. Another new wrinkle exclusive to the Dreadnoughts in this series is a shift to the slightly narrower 1-11/16-inch nut width as a standard spec. Rosewood's naturally broad frequency range and complexity of tone, together with our Performance bracing, reward players here with an expansive musical palette to explore. We're happy to bring a solid-wood rosewood guitar within reach of more players. Our ovankol Dreadnought is a kindred spirit, with a comparable voice. Try comparing the two to see which you prefer.

**To play and compare these and other Taylor Dreadnoughts, visit your local Taylor dealer.**

**510e**

**Back/Sides:** Mahogany  
**Top:** Lutz Spruce  
**Scale Length:** 24-7/8"  
**Neck Profile:** V-carve  
**Nut Width:** 1-3/4"  
**Peghead:** Slotted

**Playing Profile:** An enticing new flavor from our retooled 500 Series, the 510e boasts a musical mojo all its own, defying what players might expect from a Dreadnought. For starters, there's the slinky handfeel that makes bending strings surprisingly easy. Some players love that they can also play fingerstyle on it. But there's no shortage of dynamic output, thanks in part to the Lutz spruce top, whose tonal range resembles that of Adirondack spruce, and it's voiced with our new Performance bracing. The slotted headstock's string break angle adds a bit of snappiness that complements the slinkiness and extra flexing that comes from the Dreadnought's wider waist. If you're a longtime bluegrass, you're in for a surprise – the 510e has a different feel, but it might be just what you've needed without knowing it, especially if you've been looking to ease the load on your hands. (If not, see the 810e.) This guitar will really resonate with singer-songwriters and casual strummers looking for an easy-playing Dreadnought with warmth, balance and definition.



# Taylor Notes

## Rosewood Models Join the 400 Series

Rosewood fans will love the sound of this: We're adding the popular tonewood to our 400 Series starting this summer. The same model mix currently offered with ovangkol back and sides will also be available with solid rosewood back and sides, and similarly paired with a Sitka spruce top. The rosewood editions will incorporate an "R" in the model name (e.g., 414ce-R). The appointments will match those of their ovangkol siblings. One spec change will apply to both Dreadnought models within the series: The standard nut width is now 1-11/16 inches. A 1-3/4-inch nut width is available as a model option. The rosewood 400s began shipping in June.



## Natural Blonde: Special Edition Quilted Maple 214ce-QM Deluxe

Gorgeous quilted maple makes a guest appearance among our 200 Deluxe Series this summer, in the form of a special edition Grand Auditorium 214ce-QM DLX. The guitar sports our layered wood back and side construction, featuring an outer and inner

vener of quilted maple, a central core of poplar, and a solid Sitka spruce top. A Hard Rock maple neck adds a matching blonde color tone to the natural-finish maple/spruce body. Other details include Italian acrylic small diamond inlays, white binding, and a 3-ring

rosette. The guitar features a Venetian cutaway and ES2 acoustic electronics, and comes with a Taylor hardshell case. Look for them at select Taylor dealers starting in mid-July.

## ES2 Upgrades and Installation Now Available

If you've been eager to get our Expression System® 2 electronics installed in your Taylor guitar, here's some great news: We're now offering upgrades and installation service on any steel-string model from the GS Mini through the rest of the Taylor line (including custom models). The installation includes our Refresh service package. For more information and to schedule service, contact our Factory Service Center in North America at 1-800-943-6782, or in Europe at +31 (0)20 667 6033.

## Collaborating in Cameroon: Funding Ebony Research with the Congo Basin Institute

Last issue's update on Taylor's social forestry initiatives ("The Factory-Forestry Connection") noted the relationship we recently established with the Congo Basin Institute (CBI), a new forest research center based in Cameroon that was formed in partnership with the University of California, Los Angeles. We wanted to follow up with more information about the organization, including some fresh developments.

The Congo Basin Institute was launched in June of 2015 by UCLA professor Dr. Tom Smith together with

First, a bit of back-story: The sub-Saharan Congo Basin encompasses 1.4 million square miles of Congo rainforest in Central Africa (the second largest in the world after the Amazon). Historically the region has been rich with bio-diversity, but its ecosystem has become increasingly threatened over time. Between deforestation concerns, infectious diseases, climate change and population growth, Africa finds its future outlook increasingly at risk when it comes to providing adequate food and water. Smith and others say these challenges have been compounded by

## Having a permanent presence in Cameroon will provide the vital infrastructure to develop real solutions with lasting impact.

the International Institute of Tropical Agriculture (IITA). Smith is a professor in the Department of Ecology and Evolutionary Biology in the UCLA College and director of the Center for Tropical Research at UCLA's Institute of the Environment and Sustainability (IOES). He has spent more than three decades in Cameroon conducting biodiversity and conservation research. Partner organization IITA is one of the world's largest tropical agriculture agencies. Its mission is to address the development needs of tropical countries by working with partners to find solutions for hunger, malnutrition, and poverty.

Bob Taylor met Smith during one of his trips to Yaoundé, Cameroon, where our Crelicam ebony mill, UCLA's IITA campus and CBI are all located. The two bonded over their mutual passion for building a sustainable framework for preserving Africa's important natural resources. In fact, their shared philosophy has spawned a collaboration that has the potential to bring significant conservation benefits to the local ecosystem.

Cameroon's "brain drain," in which only about 20 percent of Cameroonians who leave their country to pursue academic degrees in developing countries return to apply their skills to the problems at hand. It's not that they don't want to return, he says, but that their home country has lacked the opportunities, infrastructure, and other necessary resources for them to pursue the work.

Those things are exactly what the Congo Basin Institute is striving to provide. Touted as a "game-changer" for the Congo Basin, CBI will serve as a dedicated base in Africa for researchers from all over the world to come and provide critical training for African scientists. The cutting-edge research facility is slated to be located on part of the campus of IITA. The first phase of development will feature a conference center, distance learning center, and dorms. It will also be a green facility, so the work there will be focused around the overarching theme of sustainability. Having a permanent presence in Cameroon, Smith says, will provide the vital infrastructure and other support to develop real solutions with lasting impact.

In Bob's column last issue ("Forestry for the Future"), he alluded to the work of Smith and other solution-minded forestry researchers, citing his admiration for their dedication. On March 24, at a gala benefit event for UCLA's IOES in Beverly Hills, Bob backed up his support with a sizeable financial commitment of \$400,000 to support the work of Smith and CBI. The theme of the event was "Champions of Our Planet's Future," and celebrated the environmental philanthropic work of several industry heavy hitters: Ted Sarandos, Chief Content Officer at Netflix; Eric Schmidt, technology leader and Executive Chairman of Alphabet (formerly Google); his wife Wendy, founder of the Schmidt Ocean Institute; and former president of eBay Jeff Skoll, a social catalyst, visionary, and Chairman of Participant Media and the Skoll Foundation. Attendees included former Vice President Al Gore, actress Goldie Hawn (who served on the host committee), and numerous Hollywood celebrities committed to supporting environmental causes. A custom Taylor guitar featuring beautiful striped Cameroonian ebony back and sides was auctioned during the event, fetching \$18,000 from Skoll.

Bob's contribution will fund a multi-pronged research study of ebony propagation and restoration efforts in Cameroon. According to Smith, the research will include: "engaging local farmers to propagate and steward ebony seedlings in rural areas; creating predictive models of West African ebony distribution and identifying suitable harvesting and planting areas; research on the basic ecology of ebony; and lab testing to identify optimal conditions for ebony cultivation."

"Thanks to Bob, the Congo Basin Institute is thrilled to help bring the best possible science to promote the sustainable harvest of ebony," Smith says. "Bob cares deeply about the future of ebony and African hardwoods generally. The project is a true 'win-win' for people and for biodiversity."

For his part, Bob is excited to leverage CBI's research expertise to develop effective forestry solutions for the region.

"It's important to expand the range of ebony in the Congo Basin," he says. "It's the right thing to do, and the Congo Basin Institute is able to develop the science to assure the work is successful. With viable re-growth and conservative use, we can help to achieve sustainability."

To learn more about the Congo Basin Institute and watch a video that details its mission, visit [www.cbi.ucla.edu](http://www.cbi.ucla.edu)



**Top:** Bob Taylor with Dr. Tom Smith in Cameroon; **Above:** Bob with Crelicam ownership partner Vidal de Teresa of Madinter Trade at the UCLA benefit event (photo: Kathleen Yap)

# Soundings

## Purple Reign

Like many others, we were stunned to hear of the sudden passing of **Prince** in April. The ensuing flood of heartfelt tributes from fellow artists and fans has testified to the enormous impact of his music and showmanship. For us, Prince will forever be a part of Taylor lore, as co-founder Kurt Listug remembers in his column this issue. Not only did the custom purple acoustic 12-string we made for him back in the mid-'80s help boost Taylor's street cred in the guitar world, but the bold graphic treatment also helped paint acoustic guitars in a fresh, more appealing light for others, as Kurt recalled in the 2003 Taylor coffee table book *Taylor Guitars: 30 Years of a New American Classic*. "Until Prince came along, I think too many guitarists saw acoustic guitars as a folkie thing," he said. "With the colored finishes, we made an acoustic guitar that a hip electric guitarist wouldn't be embarrassed to play."

Soon, calls were coming in from other artists interested in stage-friendly colored acoustics and custom inlay work. The colors and inlays eventually were standardized as part of Taylor's Artist Series, which became a catalyst that further lifted Taylor's profile in the guitar world.

Prince went on to play other Taylor acoustics over the years. Takumi Suetsugu, who worked as his guitar tech and assistant for 10 years starting around 1996, remembers being tasked with finding him a good acoustic guitar for recording.



"He didn't really pay attention to gear," he shares. "He just played, and he liked what he liked. So I went to all the local music stores at the time and bought five at a time on my credit card and brought in all the top-of-the-line stuff. I removed the price tags and let him play them. He rejected every single one of them. It was so fast. The next day, I went and got more, and I eventually ran out of guitars to bring him."



Suetsugu thinks it was Prince's guitarist at the time, Mike Scott, who suggested that Suetsugu bring in his own personal guitar, a Taylor **414ce**, for Prince to try. He did, and Prince liked it. "He was like, 'Oh, this one's nice.'"

So he ended up using it on recordings and he took it on tour." Eventually Prince bought a 414ce of his own.

We later made him a purple Grand Concert **612ce**, which he used for his solo acoustic guitar set on *MTV Unplugged* in 2004 (*The Art of Musicology*). What some Taylor fans might not know is that Prince helped inspire the creation of the **T5z**. We'd sent him a **T5** to play, but he wanted a more compact version, so we built him a custom, scaled-down purple edition. He loved it and ended up using it for a lot of studio work.

"He wanted to be able to play acoustic and electric too, and he liked it because it was thin," Suetsugu says. "He plugged it into his pedal board. He used it for recording. It was always lying around the studio."

After making the guitar, our product development team realized that they were onto something cool, so they later refined the guitar design further into what became the T5z.

## Notes From NAMM

A full loaded Taylor showcase room – about 120 guitars worth – welcomed guests to our home away from home at this year's Winter NAMM Show in Anaheim, California, back in January. A "New for 2016" wall sported our latest 12-string, 12-fret and revoiced 500 Series models – hooks were often empty because the guitars were in people's hands – while our custom guitar wall was emblazoned with an assortment of one-of-a-kind acoustic confections.

Over in our expanded meeting room, one new addition was a dedicated set for video interviews. The space featured a backdrop of new models, and video shoots were scheduled throughout the show with Taylor dealers and other media who wanted to interview Andy Powers, Bob Taylor or product specialist Marc Seal about our new 2016 guitar models for their respective websites. The space was also used to interview Taylor artists, including performing acts and others who dropped by, like former Eagles guitarist **Don Felder**, guitarist **Dan Richards** (formerly of One Direction), songwriter/guitarist/producer **John Feldman** (Goldfinger, 5 Seconds of Summer), singer-songwriter and former contestant on *The Voice* **Will Champlin**, guitarist, singer-songwriter and composer **Paul Pesco**, whose resume includes stints as lead guitarist

and musical director of Hall & Oates. Other artist guests included **Steve Hunter** (Peter Dinklage, Lou Reed, Alice Cooper) and **Roger Fisher**, a co-founding member of Rock and Roll Hall of Fame act Heart.

On Sunday, as the show came to a close, Taylor earned two awards that were voted on by dealers who read *Music Inc.*, a major industry trade publication. We received the Product Excellence Award for the **614ce** and the Supplier Excellence Award.

## Live From the Taylor Stage

Leading off this year's artist performances was young fingerstylist **Matteo Palmer**, who played a set of original material on his First Edition **812ce 12-Fret**. Teenage sibling duo **Grace and Chelsea Constable** followed, dazzling the crowd with nimble fretwork that ranged from Django Rheinhardt-inspired gypsy jazz to country pickin' (including a blazing cover of the Jerry Reed/Chet Atkins duet "Jerry's Breakdown") to bluegrass standards to the Dire Straits classic "Sultans of Swing." The sisters were later joined by flatpicking monster **Trey Hensley**, an emerging star in country and bluegrass circles whose 2015 release *Before the Sun Goes Down* with Dobro ace Rob Ickes was nominated for a Grammy in the "Bluegrass Album of the Year" category. The three tore through the blues/rockabilly classic "Mystery Train," after which Hensley unleashed a smoking set of his own on a **910e**, singing and playing a mix of originals and covers that included Johnny Cash's "Folsom Prison Blues," Jimmy Martin's "Hold Whatcha Got," and the bluegrass staple "Freeborn Man." Offstage, Hensley shared that he loves his other Taylor Dreadnought, a limited edition **blackwood 510e** that he said seems to sound better every time he plays it. "It sounds like mahogany on steroids," he raved.

On Friday, young Swedish fingerstylist and YouTube star **Gabriella Quevedo** made her U.S. performance debut on the Taylor stage, wowing the crowd with sophisticated solo acoustic arrangements of tunes including Aerosmith's "Dream On" and The Eagles' "Hotel California." She was followed by another young talent, 18-year-old British singer-songwriter **James TW**, who was recently signed to Island Records. TW played a soulful set, mixing up originals with covers, showing off slick fretwork on his rendition of John Mayer's "Neon" and using a looper to craft rhythmic groove layers on a killer cover of the Stevie Wonder classic, "Superstition!" TW shared that he's been playing Taylors as long as he's been playing guitar, and performed with a **714ce** and a **T5z**.

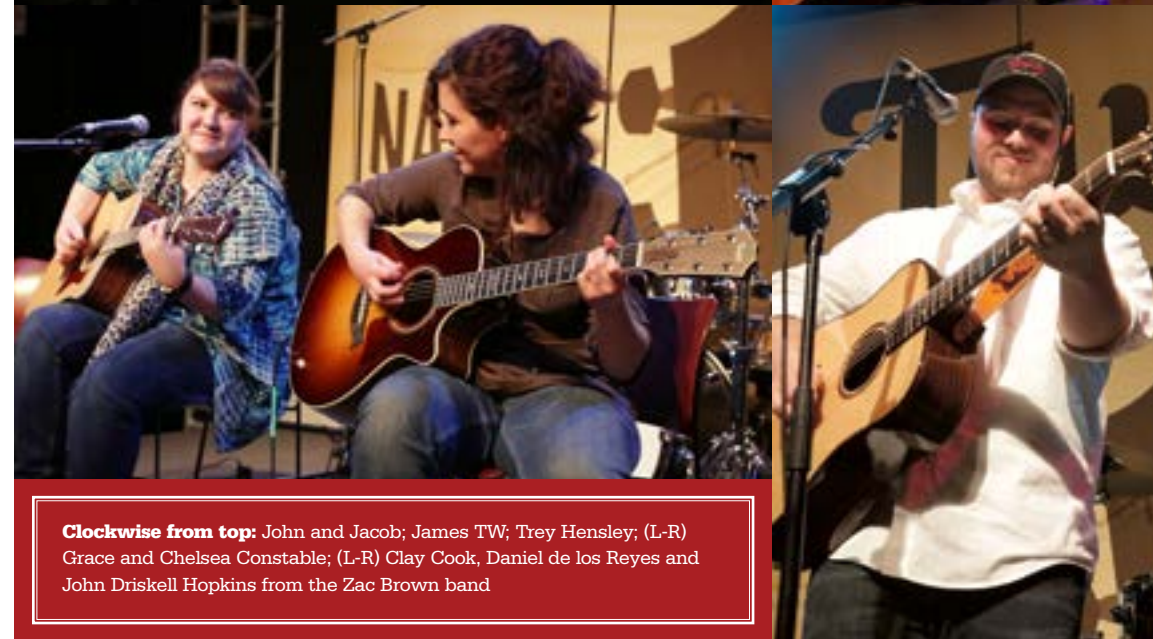


Gabriella Quevedo

Saturday's acts included three members of the Zac Brown Band: multi-instrumentalists **Clay Cook** and **John Driskell Hopkins** along with drummer/percussionist **Daniel de los Reyes**. Cook played our lush-voiced new 12-string **858e** (he owns an **856ce**), while Hopkins dug in on a **610e**. The trio uncorked a fun, rollicking set that included a flatpicking guest appearance from our own Andy Powers on a new **510e**. Closing out the day in energetic fashion was Nashville-based act **John and Jacob**, whose high-and-tight vocal harmonies and polished power pop songwriting channeled the infectious melodicism of the Everly Brothers and The Beatles, with a splash of Southern soul. Their success includes co-writing credit on The Band Perry's hit single, "Done," while their songs "Be My Girl" and "Breaking the Law" were featured on the hit TV show *Nashville*, and their self-titled debut album premiered on the top 10 Billboard Heatseeker Charts. The band's magnetic stage presence included matching throwback suits and Taylor acoustics that had been retro-styled with cool vintage pickguards and inlays. They also rocked out on **T3/B** models, leaving a lasting impression on the crowd.



Matteo Palmer



Clockwise from top: John and Jacob; James TW; Trey Hensley; (L-R) Grace and Chelsea Constable; (L-R) Clay Cook, Daniel de los Reyes and John Driskell Hopkins from the Zac Brown band

## 12-String Love

Since their debut in January, our Grand Concert 12-string/12-fret models have seduced a steady stream of dealers, players and critics. One recurring plaudit from players is that there's nothing else like these guitars out in the acoustic world, thanks in part to their comfortable body size. The all-mahogany **562ce 12-Fret** earned a Platinum Award from *Guitar World* editor-in-chief Paul Riario, who called it "a true marvel that could be considered one of the finest 12-string acoustics available." Right away he picked up on the playing comfort. "Its compact body and short-scale length made me feel so connected to the guitar that I got lost in its charm," he writes, also cheering its musical versatility. "Its supple midrange voice sounds vibrantly sweet when fingerpicked, but the 562e also sings loudly when strummed, thanks to its tropical mahogany construction, which produces an articulate and smooth top end with plenty of chime. It's one of my favorite acoustics at the moment, and has also stopped me from regarding a 12-string as merely an accompaniment tool."



Meanwhile, over at *Acoustic Guitar* magazine, Adam Perlmutter reviewed its cedar-top sibling, the **552ce 12-Fret**. "It's got a surprisingly robust sound for a small, cutaway guitar," he writes, noting the articulation and focus, along with the blend of sweetness and warmth of the cedar/mahogany wood pairing. "But what's especially nice about the 552ce is its responsiveness," he adds. "The guitar comes to life with the lightest touch, making it a nice choice for fingerpicking." Perlmutter also covered the other end of Taylor's 12-string spectrum, reviewing the full-bodied Grand Orchestra **858e** and admiring its "commanding" voice. "It's loud and lively, with impressive volume and projection and a stunning lushness," he says. "While it begs to be strummed with vigor and stands up well to the heaviest pick-hand attack, it also sounds rich and resonant when subjected to the most delicate arpeggio work."



## Slide Show

We at Taylor didn't set out to be artist-producer matchmakers, but if something like **Jeffrey Seeman's** instrumental album *Everything In Between* is the unintended result, we'll take it. After reading a September 2014 Soundings review of **Matteo Palmer's** release, *Out Of Nothing*, produced by Grammy-winning guitarist and Windham Hill founder **Will Ackerman**, Seeman, an admirer, felt compelled to check out Ackerman's latest work. Liking what he heard, the Nashville-based guitarist reached out to Ackerman and emailed links to some of his acoustic 12-string YouTube videos. By January of 2015, Seeman was recording at the famous Imaginary Road Studios in Brattleboro,



the low end is more authoritative, but this seems to work out well. The D tuning benefits from that deep, gutsy, bottom tonic string, whereas G tuning is naturally a little higher voicing."

Seeman grew up in Cincinnati, Ohio, and started playing folk guitar at eight, listening to Pete Seeger, Peter, Paul & Mary, and Joan Baez in the early '60s. The British Invasion got him interested in the Beatles, Stones, Clapton and Hendrix.

As a 14-year-old, he got to work at a new concert venue in his neighborhood of Clifton. It was at the Ludlow Garage that he first heard the Allman Brothers Band and met Duane Allman. He quickly went to work learning slide guitar.

In 1976, Seeman joined what was to become Wheels, a popular Cincinnati band in the late '70s and early '80s. After opening for Little Feat, the group cut a self-titled album produced by Feat guitarist Paul Barrere.

When Seeman shifted to acoustic music and Taylor 12-strings, he found that Taylor's original magnetic Expression System gave him the amplified tone he wanted for the particular way he plays slide. "The electromagnetic core functionality is a little more like an electric guitar, bringing out the fundamentals and some overtones without over-emphasizing the physics that happen when I move the slide against the strings," he explains. "I use several brass slides that have thousands of tiny dings; they essentially allow me to bow a string, providing infinite sustain. With these pebbled-surface slides, slide movement comes across as sustain with electromagnetic systems, but every saddle-based transducer I've tried seems to glom onto, and artificially boost, the movement noise itself as a distracting artifact."

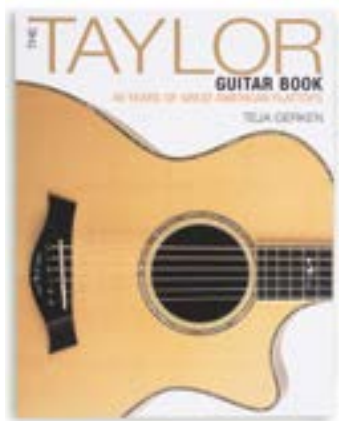
*Everything In Between's* material ranges from bluesy slide on "Let's Go" to the country-ish "Acadia Walk" and the New Agey "5 Days Old." "Michael's Journey," which Seeman played at the memorial service of Wheels bassist, the late Michael Bany, is both beautiful and emphatic – and obviously heartfelt.

– Dan Forte

## Summer Reading

A new book chronicling the history of Taylor Guitars recently hit the street. **The Taylor Guitar Book: 40 Years of Great American Flattops**, published by Backbeat Books (an imprint of Hal Leonard), tracks the company's trajectory starting with Bob Taylor's early guitar-making inspiration in high school through four decades of Taylor evolution from a struggling shop to industry-leading manufacturer. Author Teja Gerken is no stranger to Taylor – he's a longtime Taylor-playing guitarist who worked at *Acoustic Guitar* magazine for more than 15 years as a gear editor and senior editor and has reviewed Taylor models and written other feature stories on the company

over the years. (Side note: Teja's interview with Doobie Brother Pat Simmons appears in this issue.)



## Nashville Songbirds

Taylor recently had the pleasure of participating in a few projects with the famed Nashville venue the **Bluebird Café**. One of the town's best-known listening rooms, the Bluebird is where you can go to hear songs you've heard on the radio, only performed by the writers who wrote them. It's also been getting a lot of attention lately due to being featured in the ABC TV show *Nashville*.

Earlier this year we gave the Bluebird a **612e** to have on hand as the house guitar for performing songwriters and others who sit in with them. Also, Southwest Airlines is a sponsor of the Bluebird, and instead of hanging a banner, they wanted to hang a guitar to show their colors, and Taylor was their

first choice. We made a custom-branded Southwest Dreadnought that sports the airline's colors and logo.

On March 29, Taylor teamed up with the Bluebird and the organization Change the Conversation to co-host the first "Rising Young Artists Mentoring Session" to a sold-out house at the venue. The guest mentor was country legend **Reba McEntire**, who shared her career experience and advice to five young women artists: **Savannah Keyes, Lexi Mackenzie, Kalie Shorr, Alana Springsteen**, and **Allison Veltz**, each of whom also performed for Reba. Our director of artist relations, Tim Godwin, was on hand for the event and surprised all five artists with a **GS Mini** to inspire their continued songwriting

The 160-page book draws from interviews Teja conducted with Bob and Kurt, *Wood&Steel* content, and other documented sources, balancing insightful narrative with hundreds of guitar and factory photos supplied by Taylor's marketing department. One useful feature is a reference listing section that organizes Taylor's guitar offerings by shapes and series, and lists many of the anniversary and signature models released over the years. There's even a guide to Taylor serial numbers. For any Taylor enthusiast interested in a thorough compendium of Taylor history, culture and beautiful guitars, this book makes an essential Taylor accessory. You can find it at [backbeatbooks.com](http://backbeatbooks.com)

pursuits. Change the Conversation was created by Leslie Fram (Senior VP of Music Strategy for CMT), Tracy Gershon (Vice-President of A&R for Rounder Label Group), Beverly Keel (Head of the Music Program at MTSU), and Erika Wollam-Nichols (COO of the Bluebird Café).

Meanwhile, more and more Nashville artists have been visiting Taylor's well-stocked guitar showroom in Nashville, located in the Soundcheck instrument and backline rental, rehearsal and staging facility. We've settled into our guitar outpost in Nashville, and thanks to our local artist relations rep, Jason Herndon, we've been connecting with local Taylor players and helping them with their guitar needs.



**L-R:** Lexi Mackenzie, Kalie Shorr, Reba McEntire, Alana Springsteen, Savannah Keyes and Allison Veltz at the Bluebird Café. Photo credit: Justin McIntosh



## THE CRAFT

### Good Vibrations

A closer look at the phenomenon of sympathetic resonance

As musicians, have we ever considered the real meaning of the phrase "resonate with"? As in, "this guitar resonates with me." As an instrument maker, I feel there isn't a higher compliment that can be paid, or a higher indicator of a job well done, in matching an instrument with a musician. As a testament to the power of this phrase, it's used in every imaginable context to describe a state of ideal relationship between two or more entities.

The words refer to a phenomenon known as sympathetic resonance. As I understand it, this is perhaps *the* great

mechanism in the order of our world. Its influence permeates every subject and environment. From a musician's standpoint, it impacts our musical lives on every level, from the fundamental of governing how our instrument works to which musical path inspires us.

Considering the mechanical aspect of the phenomenon, we understand that everything that has mass has a particular pitch at which it vibrates based on its physical properties. As a physical action, sympathetic resonance occurs between bodies that have similar resonant frequencies. When tuned to the same frequency, the movement or vibra-

tion of one body causes a movement or disturbance, which in turn sets the second body in motion, imparting the energy of the first thing into the second. A well-known example would be a powerful opera singer hitting a high note whose frequency is the same as a wine glass. The vibration is transferred to the glass, causing it to vibrate sympathetically with such force that it breaks. This same effect happens with the strings and other components of your guitar. When a particular note is played, the vibration is transferred from the string throughout the whole instrument. Any portion with the same resonance or a

close relationship will be set in motion, including other strings. In addition to a perfect sympathetic resonance relationship between identical notes, there are weaker resonance relationships between harmonically and mathematically close relatives, such as the octave and musical fifths. These relationships are a significant part of what instrument makers consider when tuning a top or guitar back.

Imagine this: You are on a swing. With each back-and-forth motion, you pump your legs in time with your motion. Your leg motion is in a perfect sympathetic resonance relationship with the frequency of your forward-and-back motion, so you are propelled higher as your leg energy is transferred to your swinging motion. Now, if you only pumped your legs on every other

**When playing guitar in a room full of guitars that have been tuned, strum a chord and mute it, and then listen to all the other guitars vibrating sympathetically to the matching frequencies.**

forward-and-back cycle, or every third cycle, you would still be propelled higher because of the resonance relationship, but at a reduced strength or efficiency.

While the physicists and mathematicians of the world claim this physical interaction for their own domains, its influence extends even further. When we musicians hear a piece of music that stirs us, there must be something about our musical sensibilities, our own influences, inspirations, or experiences that identify, or resonate, with what we've heard. Perhaps it is a freshness that meets our need for new direction in our own playing, or the recognition of a shared influence. It could be the sounds of particular instruments, or the rapport between musicians who seem to share a common musical thought as if they could read each other's minds.

This season, we're pleased to offer musicians our newly conceived 700 Series instruments. These represent a unique outpouring of our own stories, thoughts and influences as musicians and guitar makers. We relish the opportunity to embrace beautiful material – rosewood and shimmering Lutz spruce – and craft it into musical thoughts. We sincerely hope these instruments resonate with players who can find their own stories and music in them, drawing beauty out to offer – and in turn resonate with – listeners everywhere.

have been tuned. Strum a chord and mute it, and then listen to all the other guitars vibrating sympathetically to the matching frequencies. The levels of resonance escalated among the sections of the big band. When all the musicians were performing at their peak abilities, individual voices couldn't be distinguished; all would blend into a single, powerful voice built by the unity of all the pieces.

You've probably heard the expression, "beauty is in the eye of the beholder." I like to think of that as another form of sympathetic resonance. The great scientist and thinker Blaise Pascal famously wrote, "Beauty is a harmonious relation between something in our nature and the quality of the object which delights us." This visual resonance seems to be tuned by our individual histories.

Or experiences or associations with colors, influences, brushstrokes, and obviously the subject matter. How else could the cubist work of Pablo Picasso be so moving, yet so very different than the arresting impressionist imagery of Claude Monet?

When it comes to designing a guitar, the successful instrument is guided by levels of sympathetic resonance. Certainly the physical mechanics of the instrument are at play in order to make beautiful and expressive sounds. The tactile aspects of the guitar need to be perfectly tuned to both the aural and the physical needs of the musician. Finally, the aesthetic picture of the instrument needs to resonate with the musical renderings of the player.

– Andy Powers  
Master Guitar Designer

# TaylorWare

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## Caps

**Taylor Trucker Cap**  
Plastic snap adjustable backstrap. (Black #00388, Olive #00389; \$20.00)



**Men's Cap**  
One size fits all. (Black #00378; \$25.00)

**Contrast Cap**  
Snap back, flat bill. One size fits all. (Charcoal #00381; \$25.00)



**NEW Taylor Key Chain/Pick Holder**  
Leather key chain featuring an interior pocket to hold picks. Secure pin closure. Taylor logo embossed on front. (Brown #71033; \$18.00)



**NEW Taylor Block T**  
Standard fit. 100% preshrunk cotton. Taylor block design on back with round logo on front. Short sleeve. (White #1563; S-XL, \$24.00; XXL-XXXL, \$26.00)

**NEW Ladies' Baseball T**  
Slim fit. 50/38/12 poly/cotton/rayon. Contrast 3/4 sleeve with aged logo screen on front. Sizing up recommended. (Black/Natural #4310; S-XL, \$38.00)

**NEW Roadie T**  
Fashion fit. 60/40 cotton/poly. Ultra-soft, worn-in feel. (Charcoal #1445; S-XL, \$25.00; XXL, \$27.00)

*L-R: Patrick (Taylor Block T), project manager in our Marketing department; Becky (Ladies' Baseball T) from our Inside Sales team; and Caelob (Roadie T) from our night shift Final Assembly department, with San Diego's Coronado Bridge in the background.*



**Case Label Hoody**  
Fashion fit. 50/46/4 poly/cotton/rayon. (Black #2817; S-XL, \$42.00; XXL, \$44.00)



**Two-Color Logo T**  
Standard fit. Heavyweight preshrunk 100% cotton. (Sand #1651; S-XL, \$22.00; XXL-XXXL, \$24.00)



**Moto T**  
Fashion Fit. Lightweight 100% cotton. (Black #1571; S-XL, \$24.00; XXL-XXXL, \$26.00)



**Taylor Long Sleeve Logo T**  
Fashion fit. 100% cotton. (Black #2250; S-XL, \$30.00; XXL, \$32.00)

## Glassware



**Taylor Guitar Straps**  
Choose from a wide selection of Taylor straps. Visit [taylorware.com](http://taylorware.com) for complete descriptions and specs.



**Taylor Guitar Polish**  
Spray-on cleaning polish that is easily and safely wiped away. 4 fl. oz. (#80901, \$12.00)

**Big Digit Hygro-Thermometer**  
Easy-to-read display shows temperature and humidity simultaneously. (#80358, \$44.99)



**Mini Hygro-Thermometer**  
Compact digital unit works in a guitar case or in-room settings. Dimensions: 2" x 1.5" x .63" (51 x 38 x 16mm). (#80359, \$24.99)



**The D'Addario Two-Way Humidification System®**  
The complete kit includes two pouches and three packets (#80356, \$30.00). Replacement packets (3) also available (#80357 \$20.00).



**1) Tumbler**  
12 oz. Porcelain/Stainless. (#70004, \$18.00)



**2) Water Bottle**  
24 oz. (#70016, \$16.00)



**3) Etched Pub Glass**  
20 oz. (#70010, \$10.00)



**4) Taylor Etched Peghead Mug**  
15 oz. Ceramic. (Black #70005, \$15.00)



**5) Taylor Mug**  
15 oz. Ceramic. (Brown with cream interior, #70006, \$10.00)

## Gift Ideas



**Taylor Messenger Bag**  
Adjustable canvas/web strap. (Brown #61168, \$69.00)



**Taylor Bar Stool**  
30" high. (Black #70200, \$99.00)

24" high. (Brown #70202, \$99.00)



**Guitar Stand**  
Sapele/Mahogany. Accommodates all Taylor models. (#70100, \$70.00; assembly required)



**Travel Guitar Stand**  
Sapele, lightweight. Accommodates all Taylor models. (#70198, \$59.00)



**Black Composite Travel Guitar Stand**  
Accommodates all Taylor models. (#70180, \$39.00)



**Ultex® Picks**  
Six picks per pack by gauge (#80794, .73 mm, #80795, 1.0 mm or #80796 1.14 mm; \$5.00).

**Primetone Picks™**  
Three picks per pack by gauge. (#80797, .88 mm, #80798, 1.0 mm or #80799 1.3 mm; \$8.50).

**Variety Pack (shown)**  
Six assorted picks per pack, featuring one of each gauge. Ultex (.73 mm, 1.0 mm, 1.14 mm) and Primetone (.88 mm, 1.0 mm, 1.3 mm). (#80790; \$10.00)



**Digital Headstock Tuner**  
Clip-on chromatic tuner, back-lit LCD display. (#80920, \$29.00)

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# Wood&Steel

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*The paper we used is certified to Forest Stewardship Council® standards. The FSC® is a non-profit organization that supports environmentally friendly, socially responsible and economically viable management of the world's forests.*

## Shades of Blue

A striking new blue stain, aptly named Denim, adds a weathered flair to this Special Edition T5z Pro. Together with the richly figured curly maple top, the stain conjures the look of a favorite pair of faded, heavily whiskered jeans. Our design team unveiled the guitar at a custom guitar sales event earlier this year, and several Taylor dealers were quick to place an order for their store. We'll be happy to help you find one.

