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recapture the ascendant analog bloom that only valves can render (while avoiding excess baggage charges)

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## Analog Bloom

"Tone is the indefinable something that tickles your soul, the universal voice that evolved over millennia, that lived in larynxes, taut-strung air boxes and blown pipes and then moved into a valve and blossomed. It doesn't need to come in wattages ending in double zeroes." — Adrian Legg

nun un Less

Londoner and TQR board member Adrian Legg is not your ordinary composer, guitarist, or human being for that matter. If you know his music, then you have noticed that Legg possesses an ear attuned to a whimsical world of majestic cathedrals, angelic choirs, Irish country fairs, gypsy camps and incredibly nimble and melodic musings in DADGAD, open D, open G, open C and CGDGAD tunings, punctuated with harmonic overtones and languid pedal steel bends made with banjo tuners that suggest the roots of American country music may have first found life in the British Isles, or so it seems.



With a polite smile and an ever-present gleam in his eye, Legg would tell you that much of his style as a guitarist was developed in pubs where he would lift things from other London musicians who had in turn lifted bits and pieces from American records, all of them getting the stuff

they were endeavoring to copy quite wrong. Perhaps so, but the result in Legg's case produced an accomplished musician who possesses the ability to bounce from lush concertos to jaunty beer hall jigs with little more than an acoustic guitar, ten nimble fingers, and a remarkably fertile and inventive mind. If he is not among your favorites known for urging memorable music from a 6-string, he should be. Music, afterall, is not a pissing contest. Still, plenty of pissing continues apace... "Have you heard of Adrian Legg?" 'Yes' (a lie). Have you heard of Bert Jansch? Piss, piss, trickle, trickle, drip. Oh, you've been reading Jimmy Page interviews, have you? We're

#### www.tonequest.com



talking about Adrian Legg, whose influences lean more in the direction of Davy Graham... piss, piss, dribble, dribble, drip. Like Graham, who returned from Tangiers a changed man armed with a DADGAD-tuned guitar in the early '60s,

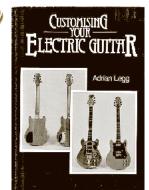
Legg is an entirely original and unique guitarist whose music cannot and will never be mistaken for another, which is quite an accomplishment don't you think? Today, I mean, when so much of what we hear is distilled from a derivative mash that simply apes the same overworn lyrical and melodic ilk – blues, country, rock, metal, folk, bluegrass, gospel, ska, and hip hop, if you call that music. A sneering rhyme of poisonous despair and crack booty poetry does not make – even in the 'hood. All music is derivative to a point, of course, but it's become ridiculously so now. Watered down and over-hyped. Not enough unexpected twists and turns. A kiddie rollercoaster. Too little imagination. Perhaps too much hard work. At least fellows like Richard Thompson can still rattle your cage a bit, which



seems preferable to another tiresome dose of euthanasia compressed to 96 kilobytes. How 'bout you? We're reminded of Davy Graham again, who said, "I like to arrange a tune, like setting a jewel in a ring." Oh, well, there you have it, then. Not much stone setting going on today, is there? Look to Adrian Legg for a shiny bright beacon of light steadily blink-

ing like a maritime message in code from old London. Call and response from Georgia... W-S-S-P-S-O-S... Will some sumbitch please save our souls?

The featured launch of the Quest in this New Year edition is a fascinating one indeed, penned by Adrian himself as he struggled to ditch his digital road rig for an analog outfit that could produce bloom, warmth, depth and dimensionality while not exceeding the allowable checked baggage weight limitations of international and domestic fly gigs. You should also know that Legg was eminently qualified for the task, having penned a book some years ago titled "Customizing Your



Electric Guitar." He knows gear, and the not-so-subtle pitfalls that can easily befall a solo troubadour in unfamiliar venues. The take home message found in Adrian's tall tale is worth noting, for while it may be easy enough to dial in a great tone at home, getting that tone out on the road is a whole other kettle of fish and chips. Enjoy...

I started life when valves were the only way of amplifying broadcast, recorded, or live music, and grew into bands with guitar and amp - a Gretsch and a Tremolux, graduating eventually to a more practical Tele and Twin. The Twin, a standard all-rounder in the UK then, got heavier and heavier, and for a townie with a bicycle, became completely impractical unless I left it at the last night's gig with everything else for someone to collect and transfer to the next venue. Along the way, (club and pub bands at this point) I encountered a solid state HH VS Musician, and whilst plugged in to try it out, couldn't get in tune to save my life. This was one of my life's big warnings, and naturally, I ignored it. Significantly, at this time, the band backline itself delivered the instrument sound to the audience; the small p.a. delivered only vocals, plus, in one band, sax, clarinet and/or fiddle. There were no monitors or engineer, we balanced ourselves backwards from the vocal level in the house, and this technique worked simply and effectively in pubs, clubs and civic theatres.



Pedals crept into our lives – my first was a Marshall fuzz. I took it out on a Sunday lunchtime

gig, where the singer's regular ashen-faced, sweating hangover dictated double solos. In the first number, I played the first solo clean, and when I turned on the fuzz for the second one, the bass player turned around and started banging his amp to stop the noise. There followed a period of double solos with repeats that were either a horrible noise, or silent because I'd plugged the pedal in the wrong way round. The abandoned fuzz is now in the rubble of the Clarendon Hotel, part of the hardcore underneath Hammersmith Bus Station. Gradually the forerunners of the stomp boxes we abuse now appeared, and I irritated bandleaders with the excessive use of most of them

until that scene dried up, when the singer shuffled off to run a pub and die of tobacco and alcoholism, William Shakespeare packed away the p.a. and the rusty mics for the last time and stopped signing receipts for a couple of dozen lots of gig money across thirty London boroughs every night.



When I emerged from the musical instrument trade workshop to which I'd retreated, valve amps were seen mainly as a means of being violent, with distortion that did its best

within homophonic bands to mimic fast cars, jets or panicky horses, and clean sound focus was around solid state and the newly emerging digital technologies. It's still largely the case that if you say "tube", many guitarists and manufacturers assume a degree of heavy distortion, which is a measure of how narrowly the electric instrument is now often defined. Clean finger-picking Merle Travis' commissioning the first working solidbody guitar from Paul Bigsby ( and its subsequent copying by Leo Fender) is forgotten.

MIDI guitar arrived, and was only more than hilarious in the hands of a few experts until hex piezo systems showed up. I tiptoed in, and was seduced, ending up at a point where I could produce a credible, thoroughly over-produced live set from kit that would fit into two suitcases. The synths fell away, as airline baggage restrictions tightened and charges went up, and as they interfered more and more with natural guitar techniques, but the VG88 digital modeler stayed. From



a solo and sleepdeprived touring perspective, it was ideal. A set could be programmed in comfort at home, to be

dragged off under the airline baggage limits to a stage where it could be delivered straight to the p.a.. Once I was plugged in and fired up, I just had to press the next button to reset the patch, and it told me what to play. That was a problem. I don't like being told what to play. I began to realise all this expensive digital progress was merely a means of covering up the tonal deficiencies I had first ignored in the HH. Noodling/doodling now required a plan, a preconception of where it might lead that had to be preset several layers down in the digital



control system, so every vague musical thought turned into a programming exercise that lead to nowhere except increased programming expertise. I did a

big deal tour as opener, and hung out with a generous and expert engineer, whose eyes lit up every time he saw an Avalon tube compressor in a venue rack. I listened carefully and very quickly heard what made him so happy: I knew it well, I'd grown up with it. I borrowed a wonderful tube combo I'd had a go on at a NAMM show, and took it around on a US solo tour. It took most of the back seat of the rental car, threatened my decapitation in the event of a shunt, was out of the question to fly anywhere, and was a bugger to hump in and out of gigs and motels twice a day. My pal at Takamine had put the Cool Tube into production – a valve preamp inside a guitar. After patiently suffering our jokes about bringing our own fire extinguishers and asbestos dickie-bows, he let me have a go on one at that winter NAMM. More confirmation - tubes did good things with piezo pickups - mainly by not responding in time to deliver the nasty attack transient that plagues most plugged-in acoustic sounds.



Hybrids appeared, one in particular was the Damage Control Glass Nexus, a valve buffered DSP with effect input spikes soaked up by a tube and then processed signal pushed out through a tube. The tubey reverb trail

Takamine Cool Tube

sang of childhood fields and freedom, but the pedal was huge and awkward. I ran a mono analog line alongside the VG-88, a shallow magnetic run through a Cusack Screamer for which I'd traded Jon Cusack a website review and track, and tried a few other analog fx on that line mixed back in with the VG-88 output, and something was happening, but it became too complicated and still the secure digital set paid the rent and defined the noodling, still it delivered signal into the d.i. boxes, and still it squeaked into the hold of an airliner just under excess baggage charges. I kept going back to the Trace Acoustic Cube, hoping it had changed, but it's too awkward and heavy to get in a suitcase, and offered no richer voice.

I looked at all the acoustic amps again - the dead duck Baggs' nice dispersion idea but the tone in the wrong place, I smiled



gratefully and glassily when I was kindly loaned a dry and spitty shoe-box AER acoustic amp for a workshop, and

then there was my trusty dusty old Trace Elliott TA50, too big and still spiky. Why can't they make an amp in a small box that sounds good? Why does sounding nice have to be big? The trouble is, the thing that damaged the electric guitar is now damaging the acoustic – making it louder is driving tone away, quantity outweighing quality. Tone is the indefinable something that tickles your soul, the universal voice that evolved over millennia, that lived in larynxes, taut-strung air



boxes and blown pipes and then moved into a valve and blossomed. It doesn't need to come in

wattages ending in double zeroes. As veteran bassist Mo Foster wondered when his youthful band considered the purchase of a Watkins Dominator, "Do we really need 17 watts?"

Periodically I entered words like "tube compression" into search engines, usually turning up elastic bandages, sports injuries, and the Avalon. One night it came up with Effectrode. Hmm... audiophile tube effects, and they were planning a tube opto compressor. I got in touch. The compressor wasn't ready yet, but they did have a Phase-O-Matic Deluxe tube phaser, which had three valves, chrome rails, and was beautiful, so we told you about it. Its lazy, tubey ignorance of my piezo attack spike confirmed what Takamine had shown and that this was the Right Direction, so I nagged, cajoled and whined, and Effectrode sent me their prototype Photo-Optical Tube Compressor to see what I thought. Bingo! It didn't need thought, it was the Big It, the je ne sais quoi, attack transient tamed either casually or squished into a warm breathing ooze. Small problem – the piezo spike was gone, and A/B-ing with a long-known Keeley showed the difference quite clearly, but the attack behaved oddly.

Sneezing, I pulled out a dusty 10" Trace Elliott Velocette valve amp and plugged in. It sounded crisp and urgent, alive and breathy. Now there was no way back, but there was a problem. This could get like Robben Ford, hymning his Dumble and then using a Zen Drive and a locally rented reissue Twin for fly gigs. Even the Velocette would hit excess



baggage charges right away, and airport handling survival padding would take it into oversize. There's the problem. You can have a great analog sound, but you can't get it to all your gigs.

To go analog and stay flyviable, I need minimal effects in place of the fully progged digital box – just

enough to colour a solo set a little differently here and there. I dug around in the dust again and pulled out a Boss VB-2. A commercial failure originally, it uses a bucket brigade system to vary delay in a signal and produce a variable pitch vibrato. Production quality wasn't that hot; I remember going through Roland's UK stock in their old Brentford warehouse, looking for one that had switch-over latching that worked every time. It has a delayable effect rise time, so it can be set very lightly, much more subtly than chorus, just enough to render equal temperament nasties ambiguously, and can fade in gradually over a few seconds so nobody jumps when I turn it on.

I needed reverb, but not digital, so I got a Holy Grail, hall or plate settings near enough, and the Flerb setting that was merely irritating. Good enough for a cheap mass-market pedal, after a while it feels as if it's decorating the edges rather than lifting the whole. My query some time ago about actual power consumption was met with a reply that referred simply to the requirement for a 500 milliAmp power supply and therefore it must be 500 mA – unhelpful for anyone assembling a pedalboard.



I took a look at Lee Jackson's site, listened to his Mr Springgy [sic] demo, re-read the interview with him in ToneQuest, and – from home in London – ordered one, to be sent to my US office. A Paypal bungle ensued, compounded by problems in my US office, where

the unit disappeared for a while. Vintage and Rare Guitars got in a new consignment of Malekko Spring Chickens, I took my guitar down to Denmark Street to try one. It sounded good enough, so I bought it. It's slappy narrow urban alleyway, enjoyably rough trade, and cost 139 quid. Malekko give no power consumption figures. I measured 84mA effect on, and a curious 120mA effect off.

#### FRANTONE

I found in the Cupboard Of Despair a no-name tremolo, picked up 19 years ago somewhere unmemorable in L.A.. Tremolo. The only effect with true, historic cred. The only tempo based effect you don't want to force into a user's orifice after two minutes. The first extra knobs on an amp. You took your guitar, your misery, and your amp down to Main Street, cut a deal with the liquor store for a power socket, fired up the amp, put on your Ray-Bans and your tremolo, complained loudly and pentatonically about spousal abuse, and soon enough you had a crowd glugging on brown bags, coins chinking into your guitar case and the liquor store cash-box. Maybe life wasn't so bad. A chorus doesn't have that long, long track, it's just a no'count white boy dressed up like a lady, and a phaser chews with its mouth open so good folks leave the table. Trem is real, and viable solo. My No-Name, like a lot of people, got louder when turned on, so I had to use a volume pedal, and found a taped back together Bespeco in the Cupboard Of Despair - it still worked after a collision with a flight case, but now needed cleaning. The cleaning fluids half-dissolved the bandaging tape tack, so the effort became very slimy. I scrubbed it off my hands and started looking for a more serious tremolo.

The Frantone Vibutron, warm, beautifully balanced, lovely paint job, elegantly made to the most obsessive audiophile standards, £325 in Vintage and Rare Guitars London, and now, unsurprisingly, discontinued as a production item, but still custom orderable from www.frantone.com. Way too much money for me. The Red Witch Pentavocal Trem, a "very unique piddle" as described and demonstrated by its New Zealand maker Ben Fulton at www.redwitchanalogpedals.com. Its interesting feature is a control that takes the trem effect out of the treble yet leaves it still going in the lower frequencies. I wondered if it could be the other way around to suit fingerstyle and give a firm thumb against shimmering fingers.



I ordered a Swamp Thang tremolo which promptly disappeared into the US office problem, but an Effectrode Delta-Trem

was racing me to a studio in Cornwall where I planned to make experimentally loud noises. The Delta-Trem is gorgeous. Inevitably really – the original was tubes, this is twin tubes and has its own Swiss Army knife Stontronics 100-240 volts switch mode p.s.u. – you can plug it in pretty much anywhere the road might take you.

#### DELTA



The tremolo does the old mono sound perfectly – a softly curving, warm-skin and cotton knickers LFO, and it does stoner trips in stereo. I need a traditional sound with two or three

speed variations to sit in different tempi without clashing, and maybe a variation in depth here and there - extreme effects don't sit well with solo guitar unless a whole piece is written around them. So at first sight there's actually too much pedal here for me on the fly-drive road if I take an amp, but for a pedals-only flight it's high on the short-list, and there's clearly recording potential, plus the spaced-out hippy stereo function. The manual does its best to guide us through the way the controls interact, narrowly avoiding a syntactical disaster, and doesn't make a lot of sense until you've sat and twiddled. Effectrode eventually give up trying to explain and say "This interaction of controls can be challenging to begin with, however it does allow for a wealth of tremolo options". Read this as hours of absorbing messing about with independent tremolos on each side of the pan as the depth and speed controls turn into separate left and right LFO speed controls - you can set say, a fast wobble on the right against a slow surge on the left, or maybe enough waltz on the left and polka on the right to completely demolish a Siege of Ennis set dance.

#### DELIVERANCE

There appeared a thread on a UK guitar newsgroup, about a Peavey Nano Valve amp which seemed to be getting jobbed off cheap. I checked out the specs - 11"x11"x 6", one 12AX7 and one EL84, one input, one knob, and a mains plug. It looked interesting, and small enough to travel. I rang Peavey EU artist relations, and they said I could have a look at one if I promised to feed back a detailed A/B Nano Valve versus the Joe Satriani range's JSX Mini Colossal, which looked like the same spec in a bigger box, with a trem, and a power soak for playing dirty without hacking off your mum. There was a pic of Joe holding it out with one hand, so I promised. The A/B was easy, I phoned it in "... I'm not sending the Nano Valve back but I just tripped over the JSX". The Nano Valve is tiny and magical. I replaced the stiff-coned Made In Hurri stock speaker with a Celestion PG8A which was going cheap in a sale, it has that slightly crusty, wheezy warmth. I wound it up and looked for the level before distortion, and it was perfectly mic'able. The chavs in the flat downstairs protested and started playing rap cd.s very loudly. I buried the amp in cushions in

the lounge and listened in another room with various cans and the most common house mic, a Shure 58, with a Shure A15RS Response Shaper in line, poking in through the Dralon.



The amp worked fine with the mic, sounded organic and good, and would fit in a suitcase. I got ready to take it all down to Cornwall to try the set a few times at higher levels. Not the least part of the feasibility study was the trial pack. The Nano Valve,

Effectrode compressor, VB-2, Spring Chicken, and No-Name trem, plus Evidence Audio leads, Planet Waves link leads, plugboard, multi-mains adaptor, psu.s, small bag of socks/undies/spare shirt & trousers, washbag all added up to 23.7 kilos. That's over the checked bag limit already and there's still no travel kettle or tea, but we get down to Cornwall on the train. After one day in the studio working loudly on the set, the prototype tube compressor isn't working out. At higher s.p.l.s the slow attack, merely irritating at home, is a much more serious problem, and the unit goes off back to Effectrode. Meanwhile, I borrow a mint Boss CS-2 for practice, it's good enough for now.



An email says manager sorted out the office, and found my Mr. Springgy and Swamp

Thang. He has shipped them to London. I needed them here in the south-west for noisy rehearsal. Ho hum... In all these projects, I get buried deeper and deeper in obsessive nerdy detail and slowly lose it, gabbling and glazing over in embarrassed company. After a while, a ghostly Jennifer Batten floats into view, admonishing through a plate reverb "Ya gotta know when to go to the movies..." We substitute Hallworthy poultry market, and an on-site fry-up follows. Eggs, of course, are plentiful.

The Nano Valve, this handbag sized box, big enough for a little old lady's limited business at the greengrocer's, is beginning to sound quite grown-up. I pull it outside to the stable to have a listen without the music room acoustic. The weather's a bit mizzly, so I have it inside pointing out of the open half-door. There's wood all round it and on either side of the speaker beam, but it kicks out a useful clean level, but inevitably with an 8" in what is now nearly an open back cabinet, still light in the bass. I think bass is going to be easy enough to find on stage with a microphone and proximity effect and still hang onto the rich tubey sparkle in the mids. The next day is brighter, and I try it right outside on the grass, and louder. The low mid boost in my onboard Graph Tech system pushes it into a fart, but there's still plenty for a picker, and how loud does it have to be anyway if there's a p.a. to do the heavy lifting? Right now, clean and with no problem, the amp goes as loud as a piano and is more directional, easily clocking 90 dBA at one metre, but it does need a touch of compression to keep it righteous.

We pack up for the train home. The suitcase has acquired extra Stuff. This is inevitable, even if on the real road it's only a mug from a gig in Texas, a few tee-shirts, and, of course, stuff you got dazzlingly cheap from an Outlet Mall. I'm disciplined about this after three decades of luggage wrangling injuries, but if there's something good to have from touring, alongside memories of Ramada puce carpets and Red Roof bedcover patterns, it's in the dank autumn morning at home sitting in a Nashville tee-shirt emblazoned "We're playing your song", pouring the first brew into a mug that reminds you of good people far away.

Now my case is so heavy I look like a body-dumping murderer dragging it over the bridge to the London-bound platform at Bodmin Parkway. We struggle onto the train and find some empty forward facing seats, behind a woman with a whining dog that has bad breath and farts a lot. We kick it discreetly, under the seat, trying to get it to point its arse the other way, and Di fetches it a jab with a knitting bag.

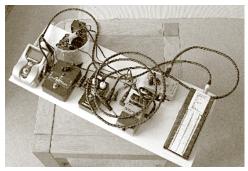


Back in London, I collect Mr Springgy and Swamp Thang from the sorting office. Mr Springgy is clean, warm, analog, one knob, less slappy than the Spring

Chicken in a wider but shallower box, and the power socket is positioned awkwardly for a busy daisy-chain, by the output jack so a right angled link lead fouls the power jack. It wants 72 milliAmps of current to work, 68 mA to stand by. It's a smooth, clean sound, old country to the Spring Chicken's garage rock.

Swamp Thang is small and two repro old Fender knobs simple – depth and speed, the effect sound is clear with an

LFO that gives a convincing soft wobble. There is as problematic an effect-on gain increase as with the No-Name, and the circuit board is bolted down bare side out by at least soldered jack sockets and the on/off 3PDT button. I emailed and asked maker John Spears if there was a simple way to turn the gain down, and he said "Good to hear from you! Sorry, I can't think of an easy way to turn down the effect gain other than a weak battery. Thanks Again, John" I tried dropping the d.c. voltage to 4.5 and 3 volts on an adjustable wall-wart, which reduced effect depth to a waste of time and still left an overall effect-on gain increase. Power consumption (from battery or 2.1mm power jack) is low at just under 4 milliAmps, and battery power is switched on by inserting the output signal jack. There's no rigid technical convention on this, but more often you'll notice the input jack turns on the power. Tuesday, 1st September: Time to gather together a likely rig for Italy on the weekend: a workshop and a concert - acid tests of functionality. The workshop schedule looks tight, so I need a tidy way of getting gear on and off stage. A "normal" pedalboard will be a problem for packing and flying along with the amp, so I get a piece of scavenged hardboard 69cms x 27cms that seems light enough, and lay out the Bespeco - now rewired with solid core wire - a Keeley compressor, the VB2, Swamp Thang, Mr Springgy, and a Peterson Strobostomp. The tuner is last in the line, not ideal, but it has a d.i. output so the entire fx chain can go to the p.a. if needed. It's before the volume pedal, but there's an output mute in case I unplug while the faders are up and the engineer is elsewhere. I also tack down the clear lid from a blank cd stack pack. It'll work like a small bucket



to carry the clock, capos and the psu. It's not a strong board, but it's not carrying much weight and for now

only has to get on and off stage twice. The trial pack hits 21.35 kilos on my scale, and the next day at British Airways' Gatwick bag drop off, clocks in at 20.6 kilos. I wonder what I've forgotten, and there are no guitar hassles. I am picked up at Bologna airport, and at the hotel, take the amp valves out of my cabin bag, put them back in the amp and it fires up without complaint. The latching switchover on my VB2 is temporarily defunct. The rest of the pedals seem to work ok.

Saturday 5th September. The Nano Valve sound is absolutely fine for level, so the tiny amp principle works for a soloist. The workshop was outdoors in the (long drained) castle moat, one wall behind the stage holding up the entrance above, a high castle wall with a balcony stage right, and a lower moat wall stage left. We set a microphone and a d.i., but had so much level from the mic we didn't bother with the d.i.. My mistake was to not use the A15RS response shaper on the SM57 to take out its peak. The result was a more toppy sound than I wanted, and the p.a. desk was too simple to deal with it, as was the assistant the real engineer left behind when he wandered off. There was very little preparation beyond a line check, but now I know better for tomorrow's concert in the castle courtyard.



The courtyard concert started and ran late. The gig proved what sound check had indicated – the Nano Valve kicked out enough level to hit the mic squarely and deliver more distortion-

free level than I needed – if pushed a little it over-filled the courtyard and I still didn't get into break-up. This time I got the engineer to put the A15RS on the SM57, and there were no eq issues or peakiness. Proximity effect took care of the low end so there was no shortage of bass, my thumb thumped convincingly. What it proved beyond any doubt was that my digital phase was over – I could deliver a whole, rich and alive analog sound to the p.a. as long as I included the amp, and – crucially – the amp didn't have to be untransportably large to do it.



The kit all made it back home with no accidents or surcharges, and I opened the inquest. First problem: it turns out the A15RS response shaper was discontinued in 1987. This is an issue because it takes away from me (and passes to variably skilled house engineers) control over the problem peak in the mic I'm most likely to encounter, adding hassle and uncertainty to sound checks.

I scout around for a couple of spares, and they are hard to find. This is exactly the kind of thing that gets left behind in a punter-attended tear-down and pack, locked up somewhere else still attached to the house engineer's cable and microphone. Carry a dedicated mic then, you might think, and a much later gig in Tahoe introduced me to the wonderfully

light Sennheiser 609, still pretty toppy, but a more expensive 906 has a switch to reduce the high mid peak and do away with the heavy A15-RS as well.

JAM's straight-forward The Chill tremolo arrived, and its volume control takes care of switchover level issues, even to the extent of operating as a clean level boost with the tremolo depth right down. It's nearly as small as Swamp Thang, runs frugally on a measured 4.18 milliAmps from a 9 volt battery (turned on at the guitar input jack) or a standard 9 volt daisy chain power jack, and is sonically unconstricted – tone through it is clear, full, and the LFO does exactly the right old, lump-free, Fenderish thing.



There is much charm in the handmade Greek pedal – JAM's young

owner Giannis Anastasakis Marinos offers custom paint jobs, includes his little sister in the list of artists, studied electronics at Athens Uni, and is as committed to audiophilia, carbon comp resistors and matched NOS components as any of the American boutique makers. More to the point for guitarists in the UK and EU, he's in Athens, there's no import tax to here, and he will do custom work. You'll find them at www. jampedals.com.

Another arrival was the MXR M-159, a reboxed Dunlop TS-1 – smaller, neater, but the big clue is in their description "rugged". It's heavy; twenty-five ounces on the old kitchen scales, and too much for just one item in my luggage limitations, but it does have a warm traditional mono trem sound in its range of sine to square wave LFO, and has stereo ping-pong. It's the anti-tank option for a band player, hard to flick around on the end of a lead if used not tacked to a board, and running on 18 volts it has loads of headroom and low noise. Alas, the 18 volts requirement has a knock effect for fly gigs by requiring packing and carrying another or a more flexible p.s.u.

I emailed Jon Cusack to see if I could have a look at his "Tap-A-Whirl". He'd sold out, but sent to me in London the one from his own pedalboard. His wife posted it, and put its full retail value of USD\$275 on the waybill, so I got a billet-doux from Parcelforce requesting the pleasure of my company and non-negotiable £35.50, bring picture i.d. to their Concord Road depot. Grumpily, I pumped up the bicycle tyres and pedalled down the choking A40 to pick it up.**To** 

# The Cusack

Cusack Music is in Holland, MI, a flat place on the eastern edge of Lake Michigan, with long, icy winters that encourage him to stay in his warm workshop making things. All the sockets are intelligently placed on the front of the quite light-weight 90x115x34 millimetre box, and the alarming number of functions, knobs and switches on it put me off until I realised that Tap Tempo is priceless, and that here also is the soloist's highly desirable effect fade-in option – variable from immediately on to around a four second rise time. There's a volume knob to match effect on and bypass, and a useful element of simple programmability. The signal treatment is analog, clear and clean as a whistle – I'm not hearing any tone change.



It has a big range of waveforms, from the simple sines and triangles that I use, to brutal square waves, or compound forms with their own integral rhythms, and

runs on 9volts from the usual 2.1mm power jack or a battery, for a consumption of up to 12 mA in some settings. You do need to read the manual, but it's not rocket science: for example, in bypass mode the Option knob sets fade-in time, in effect-on mode it selects Tap Tempo dividers, you can read more online at www.cusackmusic.com/Manuals/Tap-A-Whirl V3.pdf. It'll do pretty much anything you could legitimately expect a tremolo to do and I persuaded it quite easily to remember my favorite mix. The brake function is interesting - hold down the Tap Tempo button and the tremolo will slow down, let go and hold it down again and the tremolo speeds up, and you can preset the rapidity with which it does this - the default slow down sits well with a rallentando. It'll do a modified inverted stereo - the output jack is mono or tip and ring stereo – but then you have to get inside and move a jumper. Cusack does have a feature on all his pedals that I don't get on with – his LED shows green for effect off, red for effect on. Other pedal LEDs aren't just red anymore, so, live on stage, that takes a brain cell I need elsewhere. The other LED (blue) on this pedal flashes usefully to indicate tremolo tempo when the effect is on or off, and you can hit the tap tempo button to set trem speed before you bring it in. In the barter for his personal 007 pedal, I sent him a demo track, and you can hear it at http://tinyurl.com/kog8zv. I'd say I owe him a curry as well.

We have a shiny new postman. He brings the JAM Waterfall that might replace the VB2. I hook it onto the power daisy chain, and in spite of the vibrato modulation being much more triangulated than that in the VB2, at low levels it will do something like the same job of gently undermining equal temperament. Similarly, at low and slow levels the "chorused vibrato" is very pleasant, subtle and undistracting. Wind it up and you get close to the police's old two tone siren with a flat battery. What I'd noticed previously when checking the VB2 with a Loooper (sic) bypass box was that it did seem to benefit the tone by appearing to buffer quite usefully in effect bypass, lifting it very slightly and minimising tone change between effect on and off. I take it out of the chain, and now it's guite clear the Waterfall effect-on settings reduce highs significantly. In spite of this, its versatility in a small pedal set-up is stimulating; having a chorus option could be handy. Giannis explains the vibrato is compromised by setting tone primarily for the chorus effect. Red Witch's Empress Chorus is an alternative dual function vibrato/ chorus that's much brighter sounding, and has a convincing range of control. It too has a quite angular modulation wave, but is nonetheless worth some of your investigative time.



I discover a piezo noise snag, a hum that relates to my proximity to mains sources when I've got the guitar on. Steer clear of them and it goes away, reach out a hand towards, say, a wall-wart, and it comes

back, stand near the amp and I get a radio station. I consult the guitar's maker, who suggests checking continuity in the guitar cavity shielding, which is fine. He is surprised when I discover continuity between the metal string cups at the back of the guitar and the output jack ground – he can't remember how he did the string earth, but there it is. What seems to be happening is that to an extent, the strings are grounding me. If I leave the guitar on a stand away from everything and with the piezo system selected, it hums at what seems to be pretty much the same level. The combination of it and me seems to produce either an enhanced aerial or a grounding opportunity. I can duplicate and improve on the string earth's grounding effect by connecting to the output socket earth of the volume pedal a strip of copper tape stuck on the top of the rocker, where my socked foot rests more consistently than my hand on the strings. If this makes you nervous (a sensible condition for the inexpert user of all things electrical) consider that it is in fact as risky as what's going on everyday with the string earth in an electric guitar.

I've been given an improvement on my old 220k resistor/001mF capacitor string ground path (I got the idea years ago from one of Larry Dimarzio's demo guitars and mentioned it in my 1981 book "Customising Your Electric Guitar"). These components were inserted between bridge and guitar ground in parallel as a safety buffer against stray current. Paul Stevens, the Trace Acoustic amp designer, says this: "I can advise the following:- Replace the resistor and capacitor with a 10k and 100nF (0.1uF) in parallel, then also add 2x 1N4007 diodes in inverse parallel (back to back) across these. Therefore basically all in parallel with one diode one way and the other, the other. This should give enough grounding to have a reference without it being a short which might cause a ground loop. The back to back diodes ensure that the two sections can never rise more than 0.65V in either direction, therefore preventing any significant voltage being present across them." His summary of the issue is also clear and precise: "What is happening is basically, ungrounded, you are acting like a big aerial, picking up all the electromagnetic fields in the room. The audible part of this, 50Hz AC from mains, is then being picked up by the high impedance sensitive parts of the guitar circuitry. Grounding you, by touching the guitar strings which are connected to ground back through the amp, bypasses the hum to ground as well."



Jon Cusack has tweaked a version two of his Screamer, this V2 has an asymmetric clip setting.

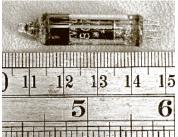
It's an absolute darling for fingerstyle, light dirt that warms without breaking polyphony down into a foggy stodge, and a mid focus that warms and thickens. In front of the compressor the attack sensitivity stays whole so that backing off the nails leaves it clean, and bearing down hard pushes it into a warm growl. It goes at the beginning of the small fx chain: V2-Keeley-VB2-Tap-A-Whirl-Reverb-Volume pedal-Peterson tuner/d.i. and from there into the Nano Valve. Two UK gigs – a Leeds pub and a Runcorn arts centre – find no flaws in the tone in the two radically different venues and p.a.s.

Another baby amp appears, the Laney Cub 8. Single ended again, a 12AX7, this time into a 6v6 instead of the Nano Valve's EL84. It comes with a Celestion Super 8, but by a tiny, fussy margin, I prefer the PG8A in it. Laney kindly organise me a 120 volt version for a US run, where the whole fx/baby amp rig works flawlessly across a variety of venues. During the tour, the transatlantic baggage allowance



comes down from two free to one free checked suitcase, so I leave the Laney at the office for the next trip.That's it, digital is dead, I'm sorted. Except... when I get home, Phil Taylor has got to prototype stage with his final Effectrode PC2A tube

compressor idea. You have to see this tube! It's a Raytheon sub-miniature NOS mil-spec 6021 developed for military uses in the 1950s. Poke around for the thoroughly informative (Phil is an expert on tubes, much enlightenment is on that site) owner's manual at www.effectrode.com under the Optical Compressor link. I'm running it from a 3amp



9 volt d.c. supply with a polarity reversing extension to feed the centre positive 2.1mm power jack. It sounds lovely, softening my piezo transient, and breathing warm life and character into the

sustain. The box is small (4.75" x 3.75" x 1.25"+knobs and footswitch) and light (12 ounces) so there's no serious extra baggage problem. I can't say anymore; it's so good that the bad half of me doesn't want to tell you about it at all.

> www.adrianlegg.com www.facebook.com/adrianlegg

## Effectrode Audiophile Effects

As you may have noticed, we try to maintain a consistent theme within each issue as much as possible. When an experienced hand with dog ears like Adrian Legg suggests that a specific effect might be worth our while (and yours), that's where we go. Otherwise, we could randomly chase the latest flavor of the month every month with no particular underlying purpose, but we like following the advice and experience of working pros. It's also why we have an advisory board, eh? So we're reading about Adrian's attempts to re-work his rig and his mention of Effectrode founder Phil Taylor, who happens to be an acoustics engineer with an appreciation for vintage Sunbeam toasters, among other things, we stop, blast an e-mail to Phil, a few weeks later two Effectrode tube effects arrive just like that, and we're on a ToneQuest. The pedals we received are Taylor's Delta-Trem Stereo Panning effect and vaunted Tube Vibe, both reviewed here for your consideration. But first, let's meet Phil...

TQR: Can you describe how your initial interest in guitar effects evolved and developed?



My initial drive to build effects pedals was fueled by a common frustration of many guitarists

- the quest for that special tone without breaking the bank. The reality was that I ended up working through several different guitar/amp setups by my early twenties and during this time I was also dismantling and analyzing the guts of various pedals, rebuilding, modifying them, constantly searching for that elusive sound. In those days I had no inkling how important tubes were for tone. This was during the early '80s when gear was rapidly evolving, becoming more complex, sophisticated and technical. Digital effects were coming in vogue and all the rage. A setup that looked like Houston mission control were essential accessories for the modern guitarist in those times! I remember working my way through countless effects pedals, processors, equalisers and guitars in a quest for a richer, warmer, less clinical sound.

It wasn't until a musician friend asked me to repair an old tube amp that I realized the musical qualities that vacuum tubes can impart. I became fascinated with tube amps and taught myself everything I could about the physics of vacuum tubes. This arcane knowledge came from dusty old 1950s and 60s texts, I uncovered from the darkest recesses of backrooms in small, secondhand bookshops. I began repairing, modifying amps and "hot-rodding" tube amps -Fender Twin reverbs were a specialty and a pleasure to work on. Other projects included complete rebuilds and modification of the original Watkins "Copicat" tape echo units and designing audiophile gear such as tube phono preamp stages. It became apparent to me that tubes had the potential to be utilized to create audiophile analogs of transistorbased pedals such as phasers, fuzz and tremolo. There had been a transition in the hi-fi industry for top-end gear to be based on tubes, perhaps this approach would work for the emerging boutique pedal industry too...

## effects

TQR: How and when did the line of Effectrode pedals fully develop?

It took a while to develop Effectode pedals. In 1995 I began work on an ambitious project to build an 8-stage vacuum tube phaser. The pedal contained custom wound transformers,

constructed on tag board with point-to-point wiring and contained 9 tubes, including a "magic-eye" indicator tube for the speed and depth of phasing. I sat on this design for several years and by 2002 I'd become proficient in Pspice, which I utilized to model circuit behaviour to further refine and optimize the circuitry. Around this time I also began designing circuit boards on computer and getting them manufactured professionally. I revised the circuit with just four tube phase shifter sections to make it more feasible to fit in a stompbox format and manufacture at (relatively) reasonable cost. This became the Effectrode Phaseomatic pedal. In 2005 I reduced the footprint further by having the tubes protruding from the top of the pedal and protecting them with chrome nudge bars. I started dreaming up other effects designs and this "look" became the standard for several other pedals including the Tube-Vibe, Delta-Trem and Tube Drive.

The design philosophy and aspirations for my pedals revolve around putting sound and build quality before the typical 200 dollar price point. This frees me up to utilize very high quality parts in the build. All pedals are class-A based on a 100% triode signal path with close tolerance polyester coupling caps and instrumentation grade resistors - top quality gourmet components for the audiophile enthusiast. The tubes operate at high voltage - efficient power conversion without the use of specially wound transformers and it was a big technical challenge for me to figure out how to boost 12VDC to over 300VDC for the high voltage tube circuitry. It took many months of development (and electric shocks!) to work through the design until I was completely happy that it was stable and quiet enough for audio. The front panel is minimalist a clean, simple and intuitive layout just like at the vintage amps, no gimmicks or unnecessary features, just focusing on high quality materials and components. There are also a few nice little details... For instance, signal is routed through a telecoms grade relay rather than off board to a 3 pole footswitch so that the pedal defaults to true bypass when power is removed so your signal is never interrupted and the tubes are easy to swap out for servicing or tone experimentation.

TQR: What would you like to achieve in the future? Are more effects in the works?

There are a whole load of pedals I'd like to have a go at building. A tube fuzz and tube Wah are in the pipeline and I'm pretty excited about what tubes will have to offer in terms of richness and more natural tone for these kinds of effects. I imagine a whole new level of smoothness and articulate tone could be attained if designed properly, making the pedal exceptionally musical and inspiring to play through. Further down the line, I have in mind a stereo tube tape magnetic Delay with ping-pong capability to push the state of the art, not merely replicate existing tape delay sounds, but improve and enhance them. This is a holy grail pedal for me. To

# Delta Trem & Tube Vibe

When Phil Taylor refers to the Delta-Trem as a 'stereo panning tremolo' that's what you get, and yeah, it does sound bigger and deeper in a very tubey way compared to just about anything else you can step on. Well, take a look at it. Two 12AX7s protected by a guard rail, three knobs for Shape, Depth and Speed, left and right output send jacks, single input, two LEDs and a proprietary power module. A larger box than some, yes, but everything neat and tidy and it weighs next to nothing. We also discovered that Mr. Taylor is decidedly partial to the photo-cell approach to trem, but improved and described as follows:



"I wanted to recreate the buttery pulse of this classic amp trem and eliminate some of the shortcomings as well. Firstly, the LFO (low frequency oscillator) in some of these older

amp tremolos were notorious for generating an obtrusive audible "ticking" noise. Culprits include many on the older Fender amps, such as the Deluxe Reverb, Twin Reverb and Vibro-King. This noise is generated by the amplitude modulator (AM), which is based on a light-dependent resistor and neon lamp (cold cathode tube) arrangement. The well-known fix is to install a small capacitor in parallel with the neon lamp, however this is not always an effective solution and additional adjustments often need to be made to lead dress and layout to prevent capacitive coupling of the noise signal. So eliminating this ticking issue can be a challenge, even a "black art", to say the least.

To eliminate this noise problem, I developed a custom "Raysistor" based on a cadmium sulfide photo-resistor and

filament lamp assembly. Raysistors were manufactured during the mid 1960s, however can no longer be obtained, which is why Effectrode developed their own device. To my knowledge this approach is unique to the Delta-Trem as vintage tube amps utilize neon or bias tremolo and pedals are based on V.C.A. (voltage controlled amplifier) designs. Replacing the neon with a filament lamp means there is no sudden increase from dark to light at a threshold as illumination intensity varies continuously for smooth and quiet amplitude modulation."

What all that means to you, player, is the Delta-Trem oozes a very luscious range of tube-driven throb, variably shaped by the Shape control. You can read more about the internal workings of the Delta-Trem online, but the short answer is that a low-frequency oscillator is employed to drive the lamp/ photocell, and the profile of the waveform can be manipulated, from the deep sine wave found in early Fender amps to triangle, square, pulse and rising and falling sawtooth wave forms that create a Leslie effect when using the Delta-Trem in stereo mode with two amps. Depth and Speed controls are as straightforward as the labels imply – it's the Shape control that moves the Delta-Trem through its considerable range of warm, hi-fidelity tremolo styles and tones. Most significant, however, is the lush tube sound – it's the kind of thing you might not fully appreciate without a direct comparison to a typical pedal, but when you do, the depth and warmth of the Delta-Trem really stands alone.

#### Tube-Vibe



Yes, another pedal elegantly honoring the original Uni-Vibe! If you were aching for still another distortion box review, may we suggest turning

your amp up? Too loud at climax? Please buy a smaller amp. There is no need to feed a big, drooling Rottweiler when a Jack Russell will do. Or a Chihuahua... Like the Delta-Trem, Phil Taylor's Tube-Vibe is endowed with the same luscious, transparent depth provided by two 12AX7s. And like the Delta-Trem, you can easily appreciate the difference on the first go-round. Controls are equally straightforward: The Intensity knob shapes the sweep and throb of the chorusing Vibe effect, and in Vibrato mode it limits drops in pitch. The Speed knob controls modulation, with an increasingly swampy rotation as the control is turned clockwise. The Volume knob is self-explanatory, adding a full +6dB of gain set fully clockwise. An internal Blend trimmer is also located inside the box, which enables the wet and dry signals to be blended and set to taste. Fully counterclockwise produces a dry signal only, while the maximum effect is achieved at the extreme clockwise setting. You know how we feel about the Uni-Vibe effect... You don't have to be playing Robin Trower covers for the Vibe to occupy a valuable place on your pedal board. More moderate settings can be used to produce subtle movement that adds mystery and suspense to appropriate songs or passages without planting your style in the '70s. Now take a walk on the wild side, and Quest forth...**To** 

www.effectrode.com

## The Velocette



Our friends in the U.K. will be quite familiar with the Velocette name, originally created by the Veloce Ltd. motorcycle

company founded in Birmingham, England in 1902. While much smaller than BSA or Triumph, the Veloce company built stylish and award-winning 250cc and 350cc Velocette bikes that included many innovative design features still in use today. The Veloce company closed its doors in the late '60s, and Velocette motorcycles remain popular and highly valued among collectors today.

In 1996, the 15 watt, dual EL-84 Trace-Elliot Velocette 1x10 was introduced at the winter NAMM show in a compact, retro cabinet design covered in British green tolex crowned with a silver Velocette logo. Trace-Elliot's little Velocette was



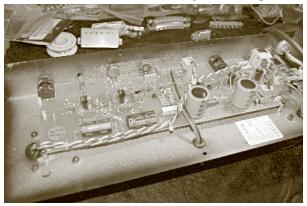
an instant hit with guitarists, who were immediately attracted to its unique and extremely portable '50s visual vibe, and the

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exceptional tone and volume of the all-tube, 15 watt Class A design. The Velocette line would be expanded to include the Velocette 12R, adding a 12" speaker, reverb, Hi/Lo inputs, and a pentode/triode switch. The Velocette SE model was similar to the 12R, but equipped with a single octal output tube for a power rating of 10 watts, and the Velocette Twin featured two power stages for stereo operation (2x15 watts), two Celestion V10s, a volume/pull gain switch, FX loop and reverb. While the entry level Velocette 1x10 filled an important void in portable, low-power Class A British amplifiers, the early models were unfortunately plagued with faulty output transformers and 1/4 watt screen grid resistors that often blew. We asked the original designer of the circuit, Paul Stevens, Trace-Elliot/Peavey UK to explain...

"To clarify the some of engineering history of the Velocette, the first version (I'll call MKI) was designed in 1995 and launched at the NAMM show in January 1996. I designed the



circuit of this but at the time we had one CAD system which was used by someone else, therefore the PCB was laid out by someone else. For some reason 1/4 watt resistors were chosen for the screen grid resistors, but the standard 100ohm (Vox AC-30) resistance value was used. These are R25 and R26 on the first issue of the PCB. The 1/4W versions occasionally went faulty due to excessive screen grid current, therefore they were changed to 1W and then 4W versions later on. 4 watt versions can be made to fit in the original board and is definitely worth doing.

On subsequent products that came out of the Velocette line (Velocette 12R, Velocette SE, Velocette Twin, as well as the similar Gibson Goldtone range), these were 4W as standard and also in some cases increased in actual resistance value to 470ohm and 1Kohm. I should also point out that all subsequent products had PCB's designed by myself as I was able to convince management that these would be better if I had my own CAD system. I was then able to lay out the PCB's to my own design rules which were based on point-to-point wiring principles learnt from military and maritime spec wiring and assembly training I received at the Marconi company, as well as adhered to standard rules of thumb regarding high voltages.



Regarding the output transformers: These were custom made, 15W with 8K ohm anode to anode primary. Unfortunately some of the early ones were prone to shutting

down under hot conditions. This was eventually located to be slightly undersized shrouds/covers which, under hot conditions, pinched the internal bobbin causing shorting of secondary windings, which in turn effectively changed the turns ratio resulting in a large reduction of output power. This was obviously corrected for later models. None of the Gibson Goldtone models had the older transformers (these were made from early 1999.) The actual B+ (plate) voltage may be considered to be high by some people but, at approximately 360VDC, this is quite standard and very common for cathode biased (class A?) EL84 valve guitar amps.

In summary, for owners of early Velocette's, if not already done, I would recommend changing R25 and R26 for 4W types and would also recommend upping the actual resistance value from 100R. Anything larger will be more reliable, therefore 220ohm, 270ohm, 330ohm, 470ohm up to a maximum of 1Kohm. Above this there would be noticeable loss of output power. Also bear in mind that these two resistors must both be of the same value. I would also recommend upgrading the output transformer to a newer 15W 8K ohm type. Hopefully this helps."

#### Paul Stevens, EngTech MIET, MAES Product Design & Development Manager, Product Demonstrator, Trace Elliot / Peavey (Europe) Electronics Ltd

We were aware of the problems with the early Velocettes years ago, having smoked a couple of Philips Miniwatt EL-84s in an amp we bought for review and immediately returned to the seller. Ten years later as we read Adrian's account of his analog fly-Quest and considered the picture of his Velocette at home in London, we ran a quick eBay search and found exactly one Velocette listed by a seller in Chicago for a price of \$347.00. The amp was clean and described as sounding great, we bought it on your behalf, and three days later it arrived expertly packed in a Marshall 18 watt combo box.

Meanwhile, Paul Stevens had graciously referred us to a source in the U.S. for spare Velocette parts – a very helpful and knowledgeable fellow by the name of Shane Radtke at



Audio Service. Inc. near Chicago. We called Shane. explained that we had just bought

a Velocette which had yet to arrive, and asked about parts availability. He informed us that his shop specialized in providing service on British-made audio products as the name implies, including guitar and bass amplifiers, keyboards and P.A. equipment, and yes, he did have spare original Velocette parts (and replacement transformers) on hand. Then he added, "But you may not need them, since it's likely that your output transformer and those 1/4 watt resistors have already been changed." "What makes you think so?" we asked. "Because we used to get all the calls from Velocette owners and we haven't gotten one in the past two years. I think they have all been fixed for the most part." Really?



And Shane was right. Once we had the Velocette open on the bench, we determined that it had been built in 1996, the first year of production, and in place of the original transformer was a Drake dated 1999. The two 1/4 watt resistors had also been replaced with larger 4 watts, so we were ready to roll. We threw out the old Groove Tube 12AX7s and EL-84s, and broke out a NOS pair of RCA EL-84s acquired from KCA NOS tubes during our Fender Pro Jr. evaluations last summer during the Beck excursion, plus two RCA 12AX7s from our dwindling stash of pulls. Five minutes into our first session with the Velocette thus equipped, we began to consider potential speaker swaps as we played. The Vintage 10 sounded good, but a little murky and restrained, and since we had already formed a very clear sonic picture of the other tens we had in storage during reviews of both a Silverface Princeton Reverb and Pro Junior earlier this year, we were tempted to go straight for the Celestion Alnico Gold. That would have been the easy route, but we still wouldn't be sure which speaker mated best with the Velocette short of trying them all, so we installed a Celestion Greenback Vintage 10, '66 Jensen C10Q

and Eminence Legend 1058 as well. The vintage Jensen lacked mids, bass, volume and punch, while the Greenback Vintage 10 was exceptionally percussive and richly detailed in the upper mids and treble frequencies, with chimey harmonics perfect for re-creating classic AC30 Beatle tracks, but low end and volume were diminished. The familiar Eminence turned out to be a stunner in the Velocette, with a more straightforward and less glassy, robust American tone with exceptional clarity, balance, volume and solid low end. We discovered that the Velocette thrives with more powerful speakers and their larger voice coils and heavier magnets, and the Eminence Legend produced a gorgeous sound, deep and lush played clean, utterly devastating cranked on '7'. Where the chimey harmonic depth of the British speakers immediately launched us into dreamy "Ticket to Ride" riffs with uncanny familiarity, the Eminence created sonic images of Pete Townshend ripping through "I Can See for Miles", "Won't Get Fooled Again" and a slightly calmer "Eminence Front." You can get utterly lost milking chords with the Velocette, and we did, alternately raking the wound strings and picking out trebly chord transitions on the top. Mind you, all of this was being done with our Nash TQ Tele, which seems perfectly voiced for the Velocette.

We also validated our hunch about the big Alnico Gold, which further opened up the amp with the same potency of the Eminence, adding volume, vivid midrange and a smooth and detailed, chimey treble overflowing with harmonics. The Celestion is voiced a little brighter than the Legend, and lacks the Legend's fullness and depth in the low frequencies, true to the style of a Celestion Alnico G12. A full 30 minutes of joy ensued as we mined the thoroughly Class A British voice of the Velocette, inspiring riffs and tones reminiscent of "Paperback Writer" and "Day Tripper". The Velocette feasted off the Telecaster, and if we were inclined to play our Les Paul Jr. with the heavier, thicker vibe of the vintage '50s P90, we would consider using the Greenback Vintage 10 or Alnico Gold, which lent more pop and definition with the Junior and our '59 Les Paul. Both speakers were phenomenally well-suited to the Velocette, and both sounds were absolutely stunning.

Fourteen years after its introduction, the Velocette can now be viewed as a piece of modern amplifier history. With its single volume and tone controls, bright switch that adds a bit of toppy boost, and 16 ohm external speaker jack, it offers the legitimate voice of a British classic at a very friendly 15 watts that can still leave your ears ringing without breaking your back or the bank. We absolutely love this amp, and it has already become an essential addition to our stash that does what none of our other amps can do, all for the lowly sum of \$347.00. Uh, huh. Quest forth...

> Just in Case... Shane Radtke, www.britishaudioservice.com/ Local Service and Tech Support 630-556-4414



## El Chupacabra & the Sun King



Have you ever let something go only to regret it later? Most of us have memories of wimmen, guitars, or both that came and went, although we can also recall a time when guitars sometimes came with wimmen... Back in the day, a common survival strategy for yet-to-be-discovered (starving) rockers was

to woo and date a stripper. Consider the benefits of such a union... You're snogging a wicked hot chick making a couple a grand a week who, on the right day early in the relationship before you snogged her wicked hot room mate, would think nothing of walking into Rippem' City Music whitcha and pay cash for a brand new, high-dollar guitar. Granted, she might break your head with it two weeks later and leave you with a long term momento called hepatitis C, but we have known more than a few bandmates who were willing to pay such tolls on the rock & roll highway (present company excluded). Swanson boiling bag chicken allah king dinners (3 for a dollar) on white bread (Toaster? We don't need no stinkin' toaster...) fueled many milk truck tours, and the electric chicken and dumplings served at our first Allman Brothers afterparty in Lafayette, Indiana was an exception, thankfully. It doesn't take three days to recover from a boiling bag dinner. Back in the real world, perhaps you have basked in the satisfaction of having turned a guitar or amp that wasn't being used all that much into cash to fuel another purchase, but as time passed, you realized that you were never likely to find another, and boy do you miss it now... It happens to us all, and when it does, such misgivings can run deep.



It may be a sign of the times, well, no, it absolutely is a sign of the times that we have been asked in the past two months to sell guitars that we had previously sold to four TQR readers dating as far back as 2004. That's never happened before. In all but one case we suggested that the seller launch an eBay auction and freely leverage the instrument's past association with us as a means of gaining a little separation from the pack. We're not suggesting that guitars we've sold are particularly special simply for having passed through our door, but we do work awfully hard at tracking down stellar examples, optimizing them to the point that the new owner often experiences an epiphany of sorts. In fact, this just happened recently. A reader who confessed to being a Fender player bought a '57 Historic goldtop from us loaded with Rolphs and vintage tone caps, and for now at least, our Fender guy can't put down the Les Paul after having bought a few that were nothing but disappointing. As we've said before, and repeated to him, "Well, you don't know until you know..."



But what about the other seller we hadn't directed to eBay? We know him a little bit – never met, but we had become friends over the phone as it seemed we often viewed the world from the same prism. He first bought one of the thirteen ToneQuest Strats built in 2004 - the only client who requested an alder body. A year later he changed his mind and asked that we swap the alder body for ash. These guitars were a team-built project in which we ordered 1-piece lightweight hardtail bodies and quarter sawn 'fatback' maple necks with rosewood slab boards from Tommy Rosamond at USA Custom. Jason Lollar

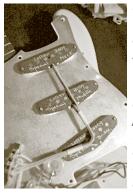
wound the pickups himself, and we used Bill Callaham's hardware and wiring harnesses throughout. Bill also painted the guitars in see-through blonde nitro and assembled them before shipping to Atlanta. There was also one hardtail prototype finished at USA Custom in blonde that Peter Stroud owns, and as he's said many times, it's his favorite Strat, reloaded with coverless Alan Hamill pickups, we believe. So we agreed to take the #7 TQ Strat back to be sold, and our friend also mentioned that he needed to sell a 1996 Historic '59 Les Paul that we had originally found at Midtown Music and sold in 2005. We hadn't seen it since, of course, but we agreed to have both guitars shipped to Atlanta to be auctioned on eBay.

Well, that was the plan, but once we had both guitars in hand, the wheels began to turn as the Voice of Reason arrived uninvited. "That's a ToneQuest Strat, dude... One of 13 and lucky #7 with 'Georgia' penciled in the neck pocket by your own hand. Six years old now, that thing is a hardtail gong disguised as a guitar that resonates like a grand piano. Listen to it... Feel it... What are you doing?" And VOR had -continued-



a point. We plugged the hardtail into the Tremolux, hit the tremolo switch and a lush Em chord and listened as that guitar pulsed, throbbed and vibrated with an obscene vigor, ravishing the delicate internals of the Tremolux with a big woody that only a hardtail can muster. The entire body resonated like a soundboard

being driven by that big-ass fatback neck. Lollar's Special pickups were perfection, every string reflected in shimmering pools of Fullerton luv jizz, from the deep, throaty baritone



of the neck pickup, gilded on the top with silky smooth treble tones dipped in silver, to the breathy steel soprano tones of the bridge, the smooth and smoky voice of the middle pickup, and the edgy quack of the combined 2 and 4 positions. At 6.8 pounds, the .010-.048 Pyramids were driving #7 and the old Tremolux into wild fits of orgasmic ecstasy, every tone as animated and vocal as any single

coil electric we had ever played. In truth, Number 7 is the all-time numero uno Strat killer – a hardtail, hybrid swamp ash mongrel cross between a Strat and a Tele with the woody character of a Steinway grand. The goat-sucking Chupacabra



of guitars... If you think you smell hyperbole here, think again (or stop thinking altogether), for the greatest obstacle in the Quest for tone may well be a skeptical and pessimistic mind. Yes, of course you're entitled to your skepticism, but were you here with #7 in hand, our lofty words would ring true, and that's really all we can say, because, well... you're not here. Number 7 has come home, and

since you are unlikely to find one of the original 13 TQ Strats and we have no plans to build more, here's our original May 2004 review of the Lollar Special pickups wound for the TQ guitars – unlike #7 and its brethren from the bench, the pickups, at least, are still available...

Given Phil Brown's huge and funky tone, we couldn't pick a more suitable issue in which to unveil Jason Lollar's 'Special' Stratocaster pickups, and they are special indeed. How many different recipes can there be for Stratocaster



pickups? Like recipes for gumbo, Italian red sauce, fine wine and small batch bourbon, it seems as if the possibilities are limited only by the creative vision of their makers. How to describe the Lollar Specials? If you happen to be a rocker who dearly loves the girth of a P90 or classic PAF, but you are hopelessly hooked on hugging a Stratocaster, you will love the Specials. If you

admire the early tone found on the Jeff Beck Group recordings with Cozy Powell, Max Middleton and Bob Tench, you are a Special player. If Ron Wood's completely overlooked solo record titled *Slide On This* speaks to you as it does to us, you need some Specials. The Lollar Specials are different from your diddy's original Strat pickups in ways that can be easily described: The bottom is very prominent, but smoother and void of the raw, tin can character we often hear in classic Strat pickups. It's a bigger, yet kinder, gentler bottom, void of the hollow pop you hear on the low E string with typical Strat pickups... The mids are also more forward in the Specials, but not over-bearing to the extent that they sound dark, honky or smother the essential nuances found in the upper frequencies. You can hear and feel the push of the mids, but they aren't mushing out or muddying the overall tone.



The highs... Now, this is usually where we have a big problem with so-called 'hot' Stratocaster pickups, because they so often have this brittle, spikey overtonething happening in

the upper frequencies that we find extremely annoying, as if each pickup has a little creep with a sizzle cymbal hidden inside the coil. That's not 'Texas'! That's noise! But not the Specials... The highs are there, but they are smooth and silky. Airy. And they don't dance on your head with lead feet.

This is Stratocaster Heaven we're talkin' 'bout, as in deep, thick and heavy. And heavy can be good. How does Lollar do it? According to himself, 43 gauge wire, 20% more turns on the bobbin, and he doesn't charge up his AlNiCo 5 magnets too high. Output resistance for the Specials ranges from about 6.8K to 7.5K ohms. The Specials rock with an authority and presence that nearly betrays their heritage, and the closest thing we could find to match up with them in Peter Stroud's music room was a vintage Junior sporting a single P90. These pickups are bold as luv, no doubt, but with all the string definition and clarity of a Strat, just bigger by a mile.



Our original vision in creating the TQ Strats was not to launch a 'guitar company.' In fact, a member of our advisory board who has forgotten more about guitars than we'll ever know suggested that we might endanger our credibility as an unbiased resource on guitars and gear by building and selling our own custom instruments. But again, we never intended to leverage the ToneQuest brand to build guitars – we simply wished to combine all the features we wanted in a guitar

that were largely unavailable elsewhere, and evaluate and appreciate the results. What we learned with bolt-on guitars at least, is that by working with the right people, you can, as one large company has implied, 'build your dream' with exceptional results. Just don't get crazy with exotic wood species, ebony fingerboards and titanium hardware... And for Strat-style guitars, we strongly urge you to consider building a hardtail.

www.lollarguitars.com, 206-463-9838



And so we turn to the 1996 '59 Historic Lester, now nearly 15 years old and approaching the status of a 'historic Historic.' It had been five years since we had seen or played the '59, and during that time we had bought and evaluated no less than twelve contemporary Historic '57, '58 and '59 Les Pauls dating from 2005-2010. We had observed the variable nature of identical models and the arbitrary differences in weight, neck pitch, neck shape, finish color and tone, but the return of the 1996 '59 further sharpened our appreciation of the contrast between an example of early Historic production and the guitars that are being built today.



At exactly nine pounds, the '59 meets the upper range of what has become our desired target range of 8.75-9 pounds. Our acquisition of Historic Les Pauls weighing under 8.75 and as little as 8.2 have revealed audibly brighter instruments with audibly absent low end and mids, and when we compare these lightweights to our slightly heavier models, we gravitate to the heavier guitars with richer tone every time. The '96 remained absolutely stock, with '57 Classic pickups, 500K CTS pots and pre-faux Bumble Bee ceramic disc caps. The original tuners needed replacement, and the heavier stop tailpiece preceded the introduction of the lightweight nickel plated aluminum version.



Among the significant differences we noted in the '96 compared to the Les Pauls we had bought since was the dark cherry stain on the mahogany back, sides, and neck, predating any attempts to mimic the look of faded cherry. That faded look has always been a sore point with us on the Historics because it never really looks faded – just watered down, as if someone at the staining bench had screwed up

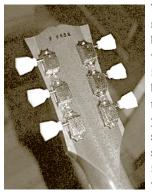
and ignored their mistake. No thanks, and 'yes, please' to the proper deep cherry that Gibson made famous. The '96 is also lightly finished in a visibly harder nitro lacquer, and subtle, very fine vertical checking in the top coat can be seen across the maple top when viewed at the proper angle. And about the top... As you can see, this is the most intensely figured '59 that has come through our hands, entirely quartersawn, with lots of twisted ribbon figure, and we were surprised by how much it had faded in the past five years, gradually moving to an authentically faded teaburst where much more red had appeared on the outer edges five years ago.



The neck shape also provided a welcome spell of deja vu, as it was rolled closer to the original specs of a typical vintage '59, minus the clubby shoulders found in more recent Historics. We'll take that, too. Turning to the fingerboard, the nut slots seem to be cut far more artfully, with the slots for the D and G strings cut at an angle in the direction of the tuners - something we haven't seen on more recent Historics, and the frets are taller than those used today, making the '96 easier to play and enhancing sustain. Viewed with the benefit of hindsight and our deep and ongoing experience with so many recent Historics, the '96 is a far better player for

us given the neck shape and taller frets. And what about tone? The original '57 Classics are known for delivering an acceptable and respectable tone likely to neither offend or inspire. The neck pickup is predictably ho-hum, and the bridge is middle of the road, being not to bright, thin, middy or honky, with moderate output and snarl. You could do worse and pay

more, but you can also do better. We actually felt no urge whatsoever to replace the pots, which measured in the 480K ohm range and had lost a lot of the turning resistance caused by the lube inside, but the ceramic disc caps would have to go, as would the worn-out Klusons, and we would drop in an aged nickel plated aluminum tailpiece, while testing a handful of reproduction ABR-1 style bridges made by Faber, Callaham, Gibson, TonePros and our favorite guitar nut, Eric Collins.



The default choice for replacement tuners are the Klusons by TonePros, model TPKV3-N with 'single line, vintage pressin bushings.' Installation is a breeze once you have removed the original bushings. How do you do that without potentially scarring and defacing your sweet baby? Per Joe Glaser's instructions, you can gently wiggle the head of a standard

screw driver *of the proper size* inside the existing bushing, slowly working it loose, and we've found that the end of a tailpiece stud also works well. In any case, no drilling is required, the TonePros bushings pop right in, and your new Klusons will have you wondering why you didn't do this earlier. The post on the low E tuner we replaced was so wobbly you could wiggle it around in a circle. Get them thangs outta there! Caps and pickups were next, and after Jester's marathon tone cap orgy featured in the November 2010 TQR, you can guess what we chose – a couple of .022 Cornell-Dubilier 600V vintage caps, which are slightly rounder and fatter than the 400V versions. We believe they sound rounder and fatter, too.

#### Pickups

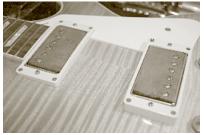


We confess to having hesitated for half a second the first time we deflowered the virgin '96 '59's solder connections for the original '57 Classics, but

tone rightfully rules over collector fussiness, and our first move was to pop a set of Rolph '58s in, knowing they would accurately reflect the subtle characteristics of the guitar, which is exceptionally well-balanced with the kind of radiant timbre unique to an older instrument. With the baseline set through the '58 Tremolux, '66 Pro Reverb and '59 Deluxe, we swapped the Rolphs for a new set of Sheptone vintage humbuckers...

#### Sheptone

The first thing we noted about the Sheptone humbuckers were the aged nickel silver covers. If they aren't from the pricey Dead Mint Club in Japan, they could certainly pass as such. Regardless, they are definitely not of the common generic variety, which at the very least indicates that Mr. Sheptone cares enough to serve the very best. The output of both pickups is moderate in the true vintage style of typical PAFs. Measuring 7.75K/neck and 8.25K/bridge, the rhythm pickup is warm and vocal, with excellent depth and moderate treble presence on the B and E strings. Single string clarity within chords is good, and while this pickup doesn't mimic a freight train, it is not plagued with the typically stuffy and muffled tone common to ordinary humbuckers in the neck position, and the output matches well with the bridge.



The 8.25K bridge is very percussive and dynamic, punchy and clear in the style of a single coil, with solid treble character that is smooth and musical. Were

you to hear a good recording of this pickup through a rig like our Tremolux set clean (and we're not talking about a compressed 96 kb MP3 file recorded with a video camera mic and flown over the Web), you might well mistake the Sheptone humbucker for a P90 or a fat Tele bridge pickup, and this is good. The Sheptone bridge pickup wins points on clarity, dynamics and tone, which also make it very pedal friendly, while top end harmonics are somewhat subdued, yielding a slightly drier tone compared to an authentic PAF or patent number pickup.

www.sheptone.com (e-mail for phone contact)

#### Stephens Design



As we indicated in the December issue, Dave Stephens has managed to tap into some serious voodoo with the formula for his rhythm humbucker. Thankfully, he didn't

actually choose the name 'voodoo' – that's the kind of thing best left to people like us to use, but use it we will. We can't say whether or not there is a correlation here, but the most amazing vintage PAF we've ever heard as a rhythm pickup



measured a low 7.2K, which is right where Stephens' pickup falls, and like the real PAF, even with such a low resistance reading Dave's pickup sounds strangely more powerful than most. The tone is bright and snappy on the top, with an overall urgency that pushes the notes forward as if they are being blown rather than plucked. We've drawn comparisons to the reedy voice of a saxophone to describe exceptional rhythm humbuckers in the past, and that's simply the best description we can muster here. And again, unlike so many neck humbuckers that sound dull and muted, the voice of the Stephens is animated - single notes jump and bounce with excellent clarity and definition within chords. We also received another prototype variation of Stephens' bridge humbucker, and it is interesting to hear how he is dancing around the classic tone of a PAF using different combinations of steel alloys, magnets and wire. Measuring 8.25K, this pickup stops short of being a sledgehammer in terms of output, but it does pack more punch than the usual PAF bridge. The tone is bright without becoming shrill and thin, supported by strong upper mid and midrange tones on the wound strings, a shizz more harmonic detail overall than most modern humbuckers, but still short of the gusher we've experienced with exceptional vintage PAFs and patent number coils. For that, we must still give a nod to Jim Rolph and Tom Holmes.

#### Double Cream



Here's a wake up call for 'ya... Another friend of TQR, a long-time reader whom we've done a few guitar and amp deals with over the years sent us a refinned

vintage '68 Les Paul loaded with an authentic double black bobbin PAF in the neck position and the holy grail of all PAFs – a double cream in the bridge measuring a very stout 8.7K... We were encouraged to 'do whatever' with the guitar and pickups, so of course, we played the '68 (it was just OK, but



not up to the level of many Historics you could buy today), and then installed the PAFs in the '96 '59 for grins. And?! Well, we wouldn't have been happy with either of them. The

double cream was completely over the top - a gonzo pit bull that made every amp in the room sound as if we were using a distortion pedal, all subtle nuances of delicious PAF clarity and bloom obscured by grinding, high output snarl. The other PAF occupied the opposite end of the spectrum, with the pris-



tine clarity typical of most PAFs, but this one lacked output, strength and girth in either position. And this is the challenge in buying old pickups in general... Oh, how we love some of the original DeArmonds that can be found in '50s

Silvertone and Harmony guitars, but often as not you'll find them virtually unusable, with extremely low output. PAFs and vintage Fender pickups are no different, really. Some of them will ruin you for life, while others can be curiously unimpressive, dull and clangy, which is why we should all be thankful for the contemporary winders working today, even if their hands are tied with modern materials that leave the magical tones of the past elusive at best.

#### Changing Bridges – Should You Bother?



Many players will never, ever consider changing the bridge or tailpiece on their guitar. As long each works as intended, that's good enough, and that's fine. Are your audience, band mates, jam buddies or partner ever

likely to congratulate you on the sound of your new tone-omatic bridge? Nope. Changing this stuff is, for the most part, a compulsive, narcissistic endeavor. You do it first to determine if an appreciable difference is produced, and if the difference seems to have been worth the effort and expense, only you are likely to enjoy the satisfaction of having incrementally made your guitar a little bit better. Still, we enjoy such exercises because they inevitably expand and deepen our understanding of the relationship between a vibrating guitar string and anything else that affects that vibration, for better or worse. You may recall Joe Bonamassa's explanation of why he specifically asked



Gibson to recreate the nylon saddles used in the late '60s for the top three saddles on his signature gold top Les Paul... The nylon simply took a little of the edgy sharpness off the treble strings, and Joe liked that sound. You go, Joe. While we are covered up with aftermarket booteek bridges



and saddles today, the other end of the guitar has attracted far less attention, although you could easily launch a debate over the relative merits of bone, ivory, Tusq, graphite, Corian, and other materials used to shape a nut. But as Ken Parker pointed out, when it comes to the nut, any effect on tone will only be heard on open strings. More significant and important to you is that the nut slots have been expertly cut to avoid the strings binding and catching as you (attempt) to tune. Historic Gibson models with Corian nuts have been notorious for producing that audible pinging sound as you bring strings to pitch. The new nylon nuts seem far more forgiving, and nuts are now cut with the Plek machine to a precise specification.



As for bridges and tailpieces, we recently auditioned an interesting collection from Gibson Historic (new version ABR-1 as of 2009 minus the

retaining wire), RS Guitarworks, TonePros, Callaham, Faber (Germany) and Eric Collins' (the pinstripe grill guy) ABR-1 Gibson bridge with bone saddles. Yeah, you read that right – bone. Collins was inspired by a brief period in which Gibson had actually used bone saddles in ABR-1 bridges around 1960, and he sent us his version mounted in a contemporary ABR-1, along with 6 additional saddles that could be mounted elsewhere. With everything described out on the bench and loaded over several months, what did we hear?

There was little discernible difference between the lightweight nickel-plated aluminum tailpieces produced by Gibson, TonePros, RS and Faber. Each features a slightly different contour on the top, rounded on the Gibson to a more defined peak on the others, they are all very well made, fit the posts snugly, and burnished aging was very well done. If you really want to experience a difference in stop tailpieces, you'll need to experiment with the super light aluminum version and a heavier version made by Gibson or TonePros. The actual variance in weight averages 3.1 oz. versus 1.1 oz. – a significant difference that you can definitely hear when installed. If you want to acquire a deeper, heavier tone, go heavy. The lighter tailpieces impart a certain zesty zing



that may enhance the sound of your guitar, but usually does little for semi-hollowbodies, Firebirds or lightweight SGs.

Bridges yielded a more varied result.

The elegantly crafted, cold-rolled steel Callaham bridge produced a focused and clearer tone from E to E, which is consistent with the effect his steel and brass saddles produce on Strats and Teles. The ABR-1 bridges from TonePros and Gibson were very comparable and consistent, but of course the TonePros allows you to permanently fix the bridge to the



posts with set screws. The bone saddles produced a softer, less metallic tone as you would expect, one that seemed appropriate for cleaner

musical styles. On a guitar like a Les Paul played with distortion, however, there was an interplay between the strings that lacked definition in chords, producing a response to pick attack that seemed oddly unfocused. Smoother and rounder, but less defined. Replacement tailpiece and threaded bridge studs are also being produced today using different steel and brass alloys that seem to suggest a tonal advantage one way or the other, and while we have swapped steel and brass studs extensively, we don't hear a meaningful difference. As for threaded bridge studs, are you really going to twist those out? Not likely. The bottom line with guitar hardware is yes, you can tap into more harmonic detail and sustain with custom bridges, saddles, tailpieces and trem blocks. Is doing so worth the expense? In our experience, it often makes a guitar that already possesses some mojo incrementally better, but don't expect to rehabilitate a dog.

#### Buying Stuff is Tuff Enuff



Buying just about anything today of consequence is hard work. Too hard. Why? Well, let's start with where we intro'd you in last month's cover page – the Innernet. Yes, of course we're well past living outside its reach, but as the lead singer for the Po-lice famously intoned, "too much information is driving me insane." Now,

that was providential. To wit (whud he say?), in the past 60 days we have been tasked with researching and buying a new fridge, dishwasher, and... what else, Bob?

A NEWWWWWWW CARRRRRRRR!!!! Gently used, actually, which can be financially prudent, yet vastly more complicated. While the unplanned spontaneous demise of such essential items may not be as tumultuously disturbing as being t-boned in divorce court, deciding what to buy (or perhaps

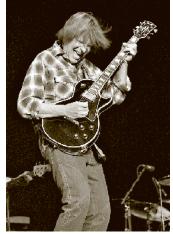
more importantly what to avoid) can absolutely throw you off your game. Reading online consumer reviews (not from a magazine, but from actual people who bought the thing you need) is often horrifying. Half the dufusses posting comments love their new Galactic Greasewhacker or Kimchee *Hatchback (always with a qualifier or two) while the rest* describe epic struggles to purge their lives of the satanic curse for which they paid dearly at Sears or Big Hearted Smiley's Autoteria (buy here, bend over here, nobody walks, everybody rides!) Today, you can easily burn up days of your life researching an impending purchase, where once upon a time, you got in your car, drove to the store that sold what you needed, traded shits and grins with the salesman for a few minutes, bought the fuckin' thing and took it home. Are we better off having so many more choices and decisions to make than just a Fender dealer with a wall of blackface amps? We wonder ...



More choices and decisions are not always a good thing, especially if you're having

trouble finding enough time to, uh... play music. You read about stuff here, there and everywhere, some of it tempting, but since you can't own or actually hear it all, you make a decision that you'll have to live with and hope for the best. We get these calls every week... "I'm thinking about buying a Bitter Rogue Head Cheese combo ... " Why? "It sounds like just what I need." You mean you've played one? "Well, no, but from what I've read online, it's supposed to be really good, and there is a video demo by Buck Dollar that sounds awesome." Uh, huh. I bet it does. Buck Dollar is a great player, but that video clip ain't you, and your fingers and your guitar ain't tickling the Head Cheese in a room, or imagine this... on a stage with a hard-cookin' band. The dream you have constructed from binary code flown over your hi-speed Web connection ain't exactly a reflection of a true ownership experience, is it? So you have called for some encouragement. You're hoping that perhaps we have tasted of the Bitter Rogue and will thus insure you against disappointment, or even guarantee an epiphany, more or less? More hair where you need it and less where you don't? That kind of thing? Chasing the latest white-hot buzz may be fun for a minute, but what do you do when the next white-hot buzz emerges and you just invested in the last white-hot buzz that preceded it? Doesn't sound like much of a strategy for success, does it? Let's keep in mind that the purpose of marketing and promotion is to sell

you something – consummate the deal by separating you from your money, not to fulfill whatever personal fantasy you may be entertaining. Let's say, for example, that you're watching one of those Ram truck commercials that is occasionally interrupted by a football game. The ubiquitous voice of Ram trucks, Coors (*the banquet barf*) and Smokey the Bear smoothly teases you with horsepower, torque and the prospect of goosing the same transmission found in an M1 battle tank up an 8% grade littered with boulders the size of a Prius. Oh, yeah... Why not roll the Twin Reverb into that little shit hole bar tonight, spread the Twin's chrome plated legs and account for yerself. "*I'm a ram, yes I am*." Yes you are. Ram it home for Jimi and Jimmy. Great amp. Great tone, man! Wrong tool for the job.



It seems that the thing we could all really use is not more volume, distortion, or a pentode/triode twitch, but an inspiration knob. Something we could turn on to turn on, brother. Previous attempts to unleash creativity on cue have been mixed at best... Checking out via chemically induced brain mods as first practiced by Aldous Huxley and Aleister Crowley have proved to be too unpre-

dictable, certainly not sustainable, and the results completely over-hyped. No, we need a knob that can recreate the kind of electrical stimuli that was firing in John Fogerty's mind when he knocked out the vocal track for "Long As I Can See the Light." He was certainly seein' it then. Does he see it every day? Probably not. Who does? We need us an inspiration knob. No matter what you may be contemplating today – a different amp, guitar, pickups, effect, or a week long bail out in Negril, if a little change can fuel your inspiration, by all means, bust a move – but do so with a clear understanding of what will feed the muse within, rather than blindly following whatever may have been deemed the next 'best' thing by a few dudes who get a tingle down their leg because dude that built the thing they luv to luv bothers to reply to their posts on the Impassioned Pentode Page. That's not the way to roll.

If you really need a new amp, or just want one, first focus on the power curve that is most appropriate for your needs. If 12 watts is enough, resist the urge to bite on 30. Volume won't make you sound better, and you'll wind up further descending into the abyss fooling with pedals that can make your too-loud amp sound cranked when it isn't. If you need more power and volume occasionally, but most often not, consider an amp with a good master volume circuit, or just use two – the



wiener dog and the howlin' wolf. Swart amps have earned a solid reputation with a lot of working pros, the RetroKing reviewed last month is one of the best sounding contemporary 20 watt small combos we have ever reviewed, and we'll be unveiling

the 20 watt Fenderesque Tungsten Crema Wheat in March, plus a new amp from Lou Rosano and Louis Electric. Many custom builders can offer custom tweaks if that's what you're after, and you can actually talk to them (until they get big, when the custom thing is replaced by the money thing).



On the opposite end of the spectrum, there are many relatively inexpensive amps that can tote the note. Modern Fender Blues Jr. and Blues Deluxe amps are outstanding for the money, proven

by pros now for years. Consider that GE Smith, who owns a legendary collection of vintage Fender amps, was playing through a Blues Deville (loaded with Tone Tubbies) on the road here in Atlanta. What more do you need to know?



Wanna go tattered and frayed? Patience always pays. Silverface Fenders are among the most classically toneful, versatile and affordable amps in the vintage market as long as you're willing to deal with replacing tubes and speakers, and perhaps a little maintenance. But of course, you must also have your head out of your ass far enough to be seen playing a silverface Fender, and a lot of people

still don't. Good. That'll keep them cheap. We respect the living shit outta players that play silverfaces. In nearly every instance, you'll be hearing some seriously good music when you see a vintage silverface on stage. Junior Brown does the silverface, as does Marty Stuart. Little Gibsons, Valcos and Silvertones remain affordable as home and recording amps, but not so much for live performances unless you are playing in a small ensemble working small rooms, in which case they are entirely appropriate and capable of producing a mesmerizing old tone that new amps just can't touch. We have watched our pal Delta Moon guitarist and TQR board member Mark Johnson run through a fascinating variety of stage amps over the past seven years, and his experience grappling with smaller, low power amps in the



20 watt range for clubs as well as a bigger rig for festival stages is instructive. Mark was the among the first players to acquire both

of the early Divided By 13 models when they were red hot among fans of booteek amps in 2004. They sounded great in fact, we borrowed both to develop a cover story on them and builder Fred Taccone in the September '04 issue of TQR. His amps are beautifully built, and the signature cream tolex V makes them immediately recognizable on stage, yet Mark experienced persistent RF interference that eventually rendered them too dicey for the road. He has since relied on the same Balls 2x12 for years, stolen in Florida and subsequently recovered from the Po-lice. He has also used a Clark 5E3 Deluxe which prompted ongoing and inconclusive speaker swaps, a blastphemously good vintage Gibson GA-20, a hand-wired Vox AC30 head that is a jaw-dropper for outdoor festival gigs but too loud and unwieldy for small club tours, a 30W Louis Electric Buster, Bakos Classic 45 tamped down with 6V6s, and a temperamental '62 brown Vibrolux. He



recorded an entire awardwinning album with a '50s Gibson Skylark and a P90-loaded Historic SG, and most recently joyfully rediscovered his Fulltone tape echo until it broke on a frigid tour in Canada along with the Balls amp. Now he's playing a Swart Atomic Spacetone and getting rave reviews

from toneheads in the audience, but he will no doubt continue to explore different amps for stage and studio. Why? The thrill of the Quest, but along the way Mark has also figured out what will work on the club circuit and what won't, and it's all about power – avoiding too much or too little, while recognizing that in the studio, very small amps can sound very, very big. Mark is also a huge fan of Jerry Jones guitars –



another exceptionally toneful and often overlooked guitar you might wanna check out.



Choosing the right amp can be complicated by indecision and uncertainty, but by focusing on those that best suit

your playing style, practical requirements (usually volume and clean headroom versus distortion threshold) and budget, the odds of finding something truly inspiring increase. Do you absolutely require reverb or tremolo? Are you willing to deal with optimizing an older amp, or do you want something fresh and new right out of the box? Is your style rooted more in the British or American sound? Do you want the flexibility of a head and different speaker cabs and combinations? Is weight and easy portability a priority? Do you need clean headroom at stage volume levels that can be goosed into sustain from the volume knob on your guitar or a boost pedal, or do you simply want a great sounding amp for home use and jamming that won't leave your ears ringing for days? Taking the time to consider what you truly need (and want) is a far more successful strategy than blindly following the hot flavor of the month in custom amp building. Consider the little 15 watt 1x10 Velocette we acquired, for example...Were you to hear it with our Telecaster, you'd probably agree that it basically delivers the rich tone and vibrant enthusiasm of a Vox AC15, price of admission \$350.00, proving once again that you don't always have to drop three grand to get a tone. To

## Jangle Box – the Hahn 1229 Telecaster

Chihoe Hahn is on a roll. Working in his small shop just up the Hudson from Manhattan, Hahn's vision is straightforward and direct – build unique, high quality guitars, which really isn't so different from the vision held by some very successful builders in the past. The difference today is that you can spend less or more for a rather simple bolt-on neck instrument than at any time in the history of the solidbody guitar. Whether you spend \$250 or \$6,000, tone, playability and appearance rule (although you might reverse the priority of those features as the price climbs), and let's face it... Stephen Bruton had it right all along when it came to Fender guitars when he said, "I don't think there is a Stratocaster or Telecaster ever made that is worth much more than \$500." Now, that was said in



the context of discussing the fact that people were paying six figures for collectible electrics at the time we interviewed Stephen in 2002 – not that he didn't like Fenders... He was just making the point that when you look at those guitars, it really doesn't seem as if they should cost more than about five bills. While that may be unrealistic for something truly crafted in America

today, it does provide a solid argument for searching out builders like Chihoe Hahn for your next single coil guitar. We spoke with Chihoe about what he builds and why (two basic models with options and a bass), and our review of the 1229 follows.

TQR: You've been building for a while now and received some very positive reviews... How have your production, variety of models and options changed or expanded in the past few years? After the initial start-up, how have things changed?

Very little, actually. My goals and aesthetic are pretty much unchanged... primitive. The original design really seems to me to be a brilliant, neutral platform. With slight changes in body weight, neck depth, hardware, pickups and, of course, wood choice, you can really dial in an amazing variety of sounds. When working with a client, I'll go through things like signal path – effects, amps – gig/room size, playing style, etc. to help the player get what he wants. I really think this is something I'm good at.

TQR: What are the most popular models you are building today, and those you are most fond of?



The main guitar is the Model 228 - a classic T style guitar in every respect. Most are swamp ash body, maple neck/board, but I do alder bodies and rosewood boards as well. Other than that, it's the Model 1229. I'm also building basses – the Model 22 based off the P '51. Most fond of? I love the 228 in swamp ash/ maple best.

## TQR: Have you made any significant discoveries in terms of building/finishing techniques and the materials you are using now?

Discoveries? I doubt it. But I do have a lot of experience and pretty specific ways to build this one guitar in predictable ways. I've developed lots of things that work for me – paint formulas, sequences, ideas about weights and shapes and electronics. But in the end it all comes down to what you're hearing and what you like and don't like. Changes here or there in build methods are based entirely on that.

TQR: How do you feel that your instruments set themselves apart from others, specifically? You run a small shop – what are the advantages and benefits of working with a builder like you?



I think you can have 10 guys building this style guitar and they will all come out very, very differently – and

on a consistent basis. There are so many decisions that are informed by your sonic goals and beliefs in what can be accomplished, and the guitar is a reflection of every one of these decisions. The benefits of working with a small builder like me? You get a guitar that's a reflection of one person. If you can get a feel for what that person is about, then you can make a better choice and hopefully realize the guitar that you never could randomly just find.

TQR: Can you describe how you go about selecting the wood you use? It seems that you would be capable of being far more selective than a big company...



I just stick with the traditional guitar woods. There is so much you can do to sculpt the sound with just these

woods that I don't have any compulsion to get into more exotic woods. I'm only concerned with sound, really, not novelty or a wood's visual beauty. As far as the specific pieces of swamp ash, alder and mahogany, I just make sure that it's the proper weight, properly dried and looks good if it's a transparent or translucent finish.

TQR: What are your favorite pickups these days?



I will use whatever a person wants, but my recommendations usually

are for Fralins, Lollars and Duncans. There are so many great pickups out there that I just don't have the time to explore them all. I know what I can do with most of the pickups made by these manufacturers and so I tend to stick with them.

TQR: What's ahead? In addition to your gallery photos on the web, can someone call and request a specific guitar design? Will you build set necks or do you strictly stick with bolt-on designs?



No, just sticking with what I know best, and building the 228 and 1229, and now the Model 22 bass. No setnecks for me – I love everything about the original design and really have no interest in building setnecks. What's ahead? Amps! I'm working with Lou Rosano of Louis Electric on amps made specifically for my guitars. We already work together informally, but this is something we've been talking about for a while. There will be three combos – a single 10", single 12" and a 2x10/2x12". I absolutely love Lou's amps and it's pretty great to be working with him to build amps that I always wanted but never could find. It's pretty much the same reason why I started building guitars in the first place. I hope to launch them at Winter NAMM, so keep an eve out.



### review

# Hahn 1229



The first thing we noticed when we pulled the 1229 from it's zippered M80 gig bag (nice) was the weight. It's light, as in exactly 7 pounds light, which can be either good, or not so good, depending on what the builder is trying to accomplish. Was the 7 pound weight the intentional result of the builder's vision, completely random, or intended to reel in players who still get sucked into

the idea that lightweight solidbody guitars are always 'better?' These are the kinds of thoughts that occur to us when we are evaluating a guitar for publication. "Why did the builder do 'this' and not 'that'? Now, if you're looking at a Mexican Tele or even one made in Corona, you can be confident that the sum of the parts that define the finished guitar is, in certain respects, pretty much random. You can't expect guitars built in a high production manufacturing facility to receive the same attention to detail as a one-man operation, but if you get the same impression from a 'custom' built guitar, well then, where's the 'custom' part?



No such ambiguities plague the 1229, since you can readily see that while the body shape is familiar, it's thinner than a standard Tele

by design, and thus lighter. The second thing we noticed with the 1229 in hand was the ample bolt-on mahogany neck with rosewood slab fingerboard and 7 1/4" - 9 1/2" radius. That certainly isn't random... The neck carve for the mahogany neck is equally unique, full and rounded with just a hint of a boatneck shape below the 5th fret. The 6105 frets and clay dot markers are familiar enough, but then of course you have already noticed the body rout for the bridge pickup and Hahn's stainless steel 1/2 length bridge plate similar to the original modification on GE Smith's signature Tele. Add Hahn brass intonated saddles, heavily knurled aluminum control knobs, 4-way switch and David Budz pickups, and you indeed have a custom guitar that readily reveals the mindset of the builder. Other unique features include a mahogany body beneath the 'Red Clay' nitro finish, Hahn stainless steel neck plate, aluminum socket jack, Gotoh control plate and a very cool undersprayed gold pickguard.



The 1229 basically represents Chihoe Hahn's unique take on a Tele-style guitar enriched with mahogany and truly custom features that can be tweaked according to the client's preferences. The quality of the finish and fine details like the fret and bone nut dress are outstanding, Hahn uses only nitro lacquer with no fillers or poly undercoats, and you can specify options such as fret size, neck shape, fretboard radius and pickups. And how does the 1229 sound? As unique as its construction materials and features

suggest. Using our bound alder-body Nash with maple neck and rosewood board for comparison, the 1229 is exceptionally lively and vibrant, which may contradict any assumptions you have about mahogany. The narrower body depth and lightweight mahogany body certainly seem to be contributing to the jangly and airy character of the 1229, which delivers the bright and trebly bridge pickup tone you'd expect, and a deceptive variety of warm, hollowbody electric tones from the additional three pickup selections (bridge/neck wired in serial and parallel, plus neck alone). This guitar behaves like a great Tele on the bridge, and a woody semi-acoustic box elsewhere. Moving from clean tones to overdriven distortion you can expect all the ringing sustain and harmonic overtones typical of a Telecaster played on the bridge pickup, and a heavier, rumbling tone with the rhythm pickup that is magic for slide. Is the 1229 a suitable choice for every player who appreciates the charms of the basic Telecaster platform? Of course not. Some people just



can't move beyond the Fender brand and all that it implies, and we understand. A traditional Nocaster Relic can be an aweinspiring slab of swamp ash with an impressive pedigree. But for those that enjoy playing an

expertly crafted alternative to familiar archtypes with a unique voice that gracefully departs from the past, the 1229 deserves your consideration. This review model as described is available to TQR subscribers at a discounted price of \$1895.00 by special order. 12-15 weeks delivery, hardshell case or Mono M80 gig bag included, 48 hour approval period provided.

www.hahnguitars.com, 845-918-1334



## C.F. Martin Performing Artist Series



It had to happen sooner or later... As acoustic boxes were enhanced by the early DeArmond 'acoustic' pickup, the quest to amplify archtop and flattop guitars slowly evolved in fits and starts. Lowe Industries' DeArmond magnetic pickups built in Akron, Ohio led the pack in early 'clip-on' coils that could be mounted over the soundhole of a flattop, while

another DeArmond design allowed archtop players to mount a rhythm pickup with a single volume pot and attached cord. For acoustic players, the '70s Barcus Berry 'Hot Spot' transducer was a revelation, especially since you could conveniently mount it wherever you thought it sounded best. In the early '80s, our personal choice for amplifying our '52 J45 was the Shadow transducer made in Germany, which consists



of a disc smaller than a quarter and perhaps 1/2 an inch thick. A stick of flexible putty was provided to attach the Shadow inside the guitar on the underside of the top, near the bridge

on the treble side. A heavy brass 1/4 jack/endpin/strap button was also included, but for volume and tone adjustments you could only work from the board or preamp wherever you were playing. We used the J45 with the Shadow on many solo acoustic lounge gigs, and the sound was (and still is) pretty damn impressive, with none of the shallow, spikey artifacts that so often plague under-saddle piezo rigs, not to mention the installation headaches. Do you really want a piezo buried beneath the bone saddle of your sweet old flattop? As you may have guessed, we still have the Shadow mounted in the J45 after a brief fling with an L.R. Baggs M1 soundhole job. A quick trip to Office Depot for some fresh 'posterboard' putty and the Shadow was back in business, and it sounds good. *Real good*. Kinda like when you bend



down and press an ear to the side of your acoustic as you play... woodier than an undersaddle piezo, yet more percussive than, say, a Sunrise soundhole pickup. Were we playing out with the J45 today, we might indulge in an Avalon preamp, but we're not. Still, it would be nice to have a small acoustic rig setup here for vocals and guitar, and we have vowed to make it happen. Stay tuned.

So what had to have happened sooner or later? Well, with acoustic pickup systems thoroughly explored by Larry Fishman, Baggs, Seymour Duncan and a whole bunch of other companies during the past several decades, Martin and Fishman contrived to develop the Performing Artist Series guitars featuring the onboard Fishman Aura System, and to our ears, they have taken the concept of an amplified acoustic guitar about as far as you can go in terms of tone-shaping, feedbackdamping control from yer guitar (and the guitars themselves are exceptional, too).

The Performing Artist Series consists of three models – the GPCPA3 reviewed here is a 'tweener' that shares the big



personality of the DCPA3 Dreadnought model, and the percussive clarity of the OMCPA3 Orchestra model, while falling inbetween both in size. When considering these three guitars on their physical size and relative merits. Martin fans will be traveling in



familiar territory with the exception of the standard cutaway common to all models.



As far as construction goes, our review guitar provided a classic example of traditional Martin construction, craftsmanship and tone, with a few nontraditional twists. All three models share a sitka spruce top and top braces, dark ebony Richlite fingerboard and bridge (Richlite is a material made from partially recycled paper and phenolic resin originally develop for

kitchen surfaces in the '50s), east Indian rosewood sides and back, 'hardwood' neck construction, 16" radius compensated white Tusq saddle, Boltaron (PVC) white binding... *Hey, wait a minute! Don't just gloss over that. What the hell is Boltaron, da doo-ron-ron, da doo-ron-ron?* Sure. Boltaron is a white PVC material that Martin first began using in the mid '60s as an alternative to ivaroid binding material. If we hadn't read the spec sheet, we wouldn't have known it was Boltaron, so there's your considered TQ take on Boltaron. Other features worth noting include a traditional mortise and tenon neck joint, hybrid scalloped X top bracing, 25.4" scale with 14 frets clear of the body, Corian nut and precise, sealed gold plated tuners.

Visually, our guitar was true to Nazareth style and tradition in every way. The neck is finished in a smooth matte finish with gloss elsewhere, the size of the CPA3 body is extremely accommodating, as is the artfully carved traditional neck shape. This model in particular is responsive enough to be played finger style, yet you can also bash it up with no fear, as we did for a solid hour during an acoustic rave up at a small Stone Mountain bar. When there is only one Martin being played on stage, you can really hear the difference... Is that a recommendation? No doubt. Granted, the Martin doesn't pretend to possess the booming rumble of our old J45, but both voices proudly stand on equal footing ... different, but equal.

#### Aura

Now, it's one thing to play the tone geek alone in a padded room with a guitar, and quite another to take it out into the real world of temperature extremes and variable rooms filled with large, sound-soaking plasma bags we call people. Sitting alone at home, the Aura is revealed as a very



nimble tone-shaping tool that includes a tuner, compressor, phase control, antifeedback filter and 3-band EQ for both the Fishman Gold Plus pickup and the Aura Image signals, which can be mixed to taste. At the heart of the Aura are nine different world-class studio microphone voices. Combined with the variable EO and the mix balance selected between the Aura and the pickup, if you can't get your sound out of this box, well, you just need another box. The versatile nature of the Martin's onboard intelligence is impressive - especially for musicians who are recording, or playing relatively quiet rooms where the subtle nuances of the Aura can be fully appreciated. On the other hand,

while more raucous gigging situations may obscure such nuances by degrees, tools like compression, EQ and the feedback filter will enable you to quickly dial in a controllable sound that stands up to a band and really cuts. What could be more important than that?



Most importantly, functional control of the Aura's feature set is managed by just two discrete knobs and a very intuitive LED menu. Barely twenty minutes spent with the manual will have you off and running, or, log on to Martin's Performing Artist web site for an online demo. We truly relished our time spent with this guitar. It's a Martin through and through in all the ways that really

count as a player and performer, and while the technology is impressive, it never gets in the way of making great music. In the words of the immortal Boom Boom Geffrion, *"I shoot the puck... I score da goal."* Score a hat trick for Martin and Fishman, and as always, *Quest forth...*<sub>TO</sub>



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