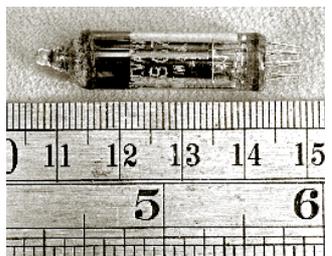


comes down from two free to one free checked suitcase, so I leave the Laney at the office for the next trip. That's it, digital is dead, I'm sorted. Except... when I get home, Phil Taylor has got to prototype stage with his final

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 transistor-based 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...

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



It took a while to develop Effectrode 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 foot-switch 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}

REVIEW

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

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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

ToneQuest



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.



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

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