

Evidence Audio Monorail

In Search of the Perfect Note

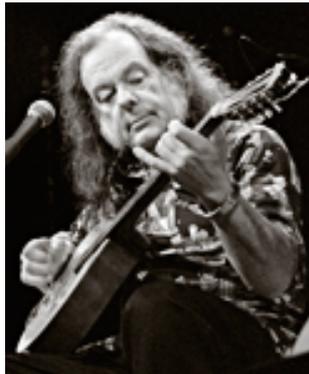
"To presuppose perfection is to assume that there is an end to creativity, and I don't believe that end exists."

—Sonny Landreth, *TQR*, December 2003



Sonny Landreth

The very fact that you are reading this indicates a mild to intense interest in making exceptional sounds with a guitar – a pursuit that was far less complicated when we were confronted with fewer choices and a lot less to think about. Still, during the comparatively simpler decade of the '50s, Leo Fender found something meaningful to tinker over every single day. In hindsight, he seems to have been preoccupied with clarity, systematically eliminating distortion at progressively higher volume levels for the performing musician. The smaller, more economical Fender amps lacked clean headroom due to the limitations imposed by meeting certain price points, but he'd have made them cleaner too, if he could. Leo was a fidelity freak, no doubt, while electrical engineers like Seth Lover were tasked with achieving another type of musical fidelity that eliminated the typical hum produced by single coil pickups.



Taken to an extreme, the pursuit of virginal fidelity in the sound of an amplified guitar is subjective and debatable. At some point, musicians have to stop futzing with gear and play music, yet the cult of tone and the pursuit of it has never been more hyped, robust or pervasive. Is there an end to the quest for tone? No. But there is room in the asylum for those willing to take things too far. Consider the words of David Lindley, describing his own experiments wrenching the most from his guitars... "Then I thought, 'Hey, what about no pots at all? *Direct chain drive*. You just plug the sucker in. No tone pot – just a volume control. I would get these pickups wound from Doc (Kauffman) and in order to try them out I would take a guitar cord and take



off the jack and just twist the wires together. These instruments sounded so good. They had this huge, golden, fabulous sound at all volumes, and then the

minute you put a screw in it and bolted it to the instrument the sound changed. Then when you put a pickguard on top of that and screwed that to the guitar, the sound changed again.' Well, if the addition of a few pots sucks the magic out of yer potentially mind-blowing tone, Tony Farinella's comments about shielded cable may well drive seriously afflicted tone freaks to draw a warm bath, light a stick of frangipani and break out a straight razor. Unfortunately, you can't build an amp or wire a guitar with unshielded wire, but you *can* use wire that doesn't cloak and obscure what's really happening on a molecular level when you pour the coals to your favorite rig...



Tony is now making Monorail cable that can be used for pedalboard patch cables, guitar and amp circuits, patch bays, rack systems, etc. We rewired our pedalboard with Monorail using standard solderless connectors with outstanding results. Using power supplied by Visual Sound's 1-Spot 9 volt adapter, our rig is dead quiet, and the Monorail improved the transparency and clarity of

the signal routed through seven effects. The ultimate test? You can't hear any difference between the sound of a guitar and amp alone (using Evidence guitar cable) and the pedalboard rig. Here's what Tony had to say in response to our questions about the Monorail:

TQR: What are the potential applications and benefits of the new Monorail cable?

The applications are any part of the signal path which require a compact form-factor. The Monorail can be pretty much described as either a very small audio cable, or a very large piece of hook-up wire. It's that middle ground where it is robust and durable enough to use on a pedalboard or to wire up the back of a rack, or snake through a studio console, yet small enough to go inside the body of a Gretsch or an amplifier chassis where shielded hook-up wire is required. The benefits are the same as those you derive from replacing a wire that puts a "stamp" on the sound with one that sonically "gets

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out of the way” better. First impressions are typically a reduction of etching, less damping of transients and a generally more balanced sound.

TQR: Hold on a minute... What do you mean by ‘etching?’



The literal definition is *the process of using strong acid to cut into the unprotected parts of a metal surface*. In terms of sound, etching is a negative quality where the upper frequencies are exaggerated by having distortion ride alongside them in a way that is abrasive to the ears.

It cuts through the mix, but not in a good way. More like someone cutting into your forehead with an ice-pick... The opposite of what I term ‘getting out of the way,’ it calls attention to itself in the higher frequencies, classically illustrated in the transistor vs. tube comparison. You could also say, “typically a reduction of high frequency irritation...”

TQR: Yeah... “You’re etching me.” The Monorail obviously isn’t as stiff or hefty as your other cables made for guitar and speakers... How do you achieve the same sonic benefits without the mass?

To be honest, mass has little to do with sonic benefit and if anything, it hurts the sound. The only value added by mass is durability, and that comes at a cost. Even shielding is a necessary evil that hurts sound quality. In an environment where there is nothing to shield *from*, if you add or remove a shield around a cable the difference is remarkable. The real working bits are the conductors themselves and everything after that causes problems. Well... the conductors *themselves* can cause serious problems, but once you choose a conductor that behaves properly for a given task, everything on top causes degradation and you make your choices about them in ways



that serve the music. Do you really want to hear your hands and the wood of your guitar? Run the pickup windings an extra ten feet off the coils out of the guitar and solder a 1/4" plug to them. Plug into amp. Oh, Hello! Now this isn’t practical, of course. Getting back to the real world, you really do need to insulate wire and often shield it. However, the best possible sound you’ll ever hear is a piece of (good) bare wire between points A and B. Compare that to an insulated wire and the difference will make you weep. Put a shield over a bit of insulated wire and the air and dimensionality collapse. More tears. Really, the more you insulate/shield/stack on top of the (good) conductors floating in air, the further away from perfection you move. A long way to answer your question how it is quite possible to achieve the same sonic benefits without mass. Less is more.

TQR: Could this wire be used for internal guitar and amp wiring with noticeably improved results? We’ve noticed an oddly consistent difference between specific models of guitars wired with one pickup versus two – less capacitance perhaps, and a result similar to using cable with the same properties...

Yes it could be. If the project does not require shielded wire it would be best to pull the insulated core out of the cable and use it alone. I also provide insulated IGL™ hook-up wire in black and white, which can be found in production guitars built by Nik Huber, and microphones from Oktavomod and Cascade Microphones.



I can’t speak with confidence about the similar results with one versus two pickups being due to capacitance. I haven’t done the math on that to see what the variables are and how to correlate them to what is heard. Capacitance may come into play with internal wiring, but we are talking about incredibly small lengths. I spend a lot of time discounting the effects of capacitance in 15 foot cables. Well... the effects are real but no reason to make a choice for a 40 pf/FT cable over a 45 pf/FT cable. With three inches of wire inside a guitar you are looking at a variance of 1.25 picofarads. Like I said, I’m not sure what the variance in capacitance is related to the pickup scenario, so I can’t speak to it. Could be? A question answered with a question.**to**

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