

# ANALOG by michael fremer CORNER

THIS ISSUE: Mikey on the DSA Phono II preamplifier and moving-coil cartridges from Miyajima Labs and Stein Music.

INSIDER VIEWS ON EVERYTHING VINYL

### An Unusually Versatile Phono Preamp and Two Cartridges

hortly after the July 2013 issue of *Stereophile* hit the newsstands, I received an e-mail from audio restoration expert Doug Pomeroy, who specializes in the digital preservation of disc pressing metal parts, acetates, and 78s. (For an example of his excellent work, see www.nytimes.com/2010/08/17/arts/ music/17jazz.html?pagewanted=all&\_r=0.)

I first spoke with Pomeroy in 2001, for a story about digital audio published in a *Village Voice* music supplement. His and my opinions about digital sound couldn't be more divergent. Pomeroy's experience dwarfs mine, but I haven't budged from my opinions about digital in the 12 years since.

I'll give you a quick example why: I just played 24-bit/96kHz files of Tom Waits's *Bad As Me* on a *very* expensive and superb-sounding digital playback system I'm reviewing, then played the 180gm LP (Anti- 87151-1), mastered by Bernie Grundman.

I don't care that it was recorded digitally, then mastered to LP from the same 24/96 files, and I don't care if the vinyl suffers "euphonic colorations—it sounded *much* better, and drew me into the music as the files did not. I heard image three-dimensionality and instruments that were harmonically fully fleshed out, in a mix that, via the files, sailed into the silvery backwash. If that's a result of "euphonic colorations," bring 'em on.

#### **Back to the Story**

Pomeroy had read my "The Power of Vinyl" column, in which I surmised that Dial #1, a recording of Bartók's Sonata for Two Pianos, was probably not the same Dial label that had issued Charlie Parker 78s in the 1940s.

I couldn't find anything online connecting what I thought were two separate labels of the same name, but wouldn't you know it, "Beyond Bebop: Dial Records and the Library of Contemporary Classics," a conference paper by D.J. Hoek, head of the Northwestern University Music Library, published in the Spring 2013 issue of the *ARSC Journal* (the publication of the Association for Recorded Sound



The Dynamic Sounds Associates Phono II costs \$12,000.

Collections), provided the answer.

In his e-mail, Pomeroy explained that after Parker left Dial to sign with Savoy Records, Dial owner Ross Russell decided to "go classical and enlisted the cooperation of Schoenberg, Stravinsky, Cage and others." If you were going to "go classical" in the mid-20th century, could you imagine a better group to enlist? Pomeroy offered to send the issue of *ARSC Journal* containing the story, and I accepted. The paper was as thorough as you'd expect from an academic: meticulously annotated and footnoted, it included recording information not found on the record jacket.

The Bartók was recorded July 29, 1949, at WOR studios, in New York City, by engineer Doug Hawkins, a Juilliard graduate who had engineered all of the label's jazz releases. Russell cared about how his records sounded.

Dial's 19-LP *Library of Contemporary Classics* included works by Schoenberg, Berg, Webern, Hovhaness, Stravinsky, and Cage. Stravinsky was already signed to Columbia, but in those earliest days of the LP, Columbia Records' Goddard Lieberson restricted the number of releases of the composer's work, so Stravinsky moonlighted on Dial.

Russell's relationship with Schoenberg was "stormy," to say the least, but his managing to convince Cage to record was a real coup. Cage, who preferred to play his music for family and friends, was so happy with Hawkins's engineering that he's quoted on the jacket as having said, "Hawkins is actually recording perfume!"

Russell, who died in 2000, said in 1995 of the *Library of Contemporary Classics*, "The recordings [for] the most part received splendid reviews. They didn't sell and the project was not a success." Will the current recording scene produce such a rich historical tapestry?

#### **DSA Phono II phono preamplifier**

Dynamic Sounds Associates (DSA) is a one-man operation owned and operated by Douglas Hurlburt, a Naples, Florida, resident whose background includes a master's degree in solidstate physics and a PhD in electrical engineering. While an undergraduate at Johns Hopkins University, Hurlburt worked in the acoustic laboratory at the National Bureau of Standards, which he says was staffed by audiophiles. That's where he began learning about circuit design, a field in which, despite his degrees, he claims to be self-taught.

Hurlburt's *real* audiophile training began in high school, when he built and heavily modified a Heathkit amp based on the 6L6 tube. In college he built his own amp from scratch using a published Dynaco circuit diagram, as well as a tubed preamp based on Stu Hegeman's design for the Harman/ Kardon Citation, which he modified, separating the phono stage so that it could be placed closer to the turntable. Years later, Hurlburt designed and built a 125W, class-A, direct-coupled, FETbased power amplifier.

The circuitry of the Phono II (\$12,000) is similar to that of its predecessor, the Phono-One, but the new model has a vastly enhanced feature set that includes three XLR/ RCA MM/MC inputs, each independently adjustable on the front panel for resistive or capacitive loading. Six loading choices, with additive capabilities, are offered, plus, on input A only, a seventh option allows your resistive choice via circuit board sockets. There are four gain levels (40, 50, 60, 66dB), as well as pushbuttons for Mono, Polarity Invert, high-pass filter (rumble), and L-R/R-L. This last can be used to approximate azimuth setting-but, as the instructions point out, this difference method is not the same as minimizing crosstalk, which is a more accurate method. In short, the Phono II is a fullfunction phono preamplifier that will



The Phono II keeps its less-often used controls under a cover.

be especially useful if you have multiple tonearms and/or turntables.

Each of the four all-FET gain stages, (the final three of which operate in differential mode), uses internal feedback, with passive RIAA equalization divided between the input and second stage and the second and third stages. The dualmono design uses no global feedback and no step-up transformers—if you don't like step-ups but you need a lot of gain, this one might be for you.

The Phono II's output stage employs a separate class-A amplifier for each polarity of the amplified signal, and its fully regulated supply voltages are powered independently of the gainstage voltage rails. The DSA is claimed to output more than 20V peak–peak without clipping, and produce 30mA of drive current.

Hurlburt has paid particular attention to noise. The Phono II's two matched toroidal AC transformers have primaries driven out of phase with each other, and are magnetically shielded in a separate housing. Also included is an internal RFI filter for the power line.

Because there are no coupling capacitors in the Phono II's circuit, an occasional "touch-up" of the DC balance and/or offset at the output might eventually require some tweaking (there's another rarely needed balance tweak, but I won't go into that here) if you hear a pop when selecting outputs. The instructions provided for doing this seem straightforward, though it wasn't needed during the two months I had the review sample. The owner's manual is exemplary: very detailed, very well written.

When I spoke with Hurlburt, he emphasized that, despite the plethora of switches, inputs, and loading options, his design does not in any way sacrifice signal purity. All of the switching and routing is done via logic-controlled relays. Signal paths have been kept very short, with boards located next to their functions, and Hurlburt has made sure to keep the lengths of wires in both channels identical, even when the physical distances those traces must traverse slightly differ.

Hurlburt sources his "stuffed" boards from one company and his chassis from another, and assembles, tests, and burns in each unit at home.

Should his volume of sales increase, Hurlburt is prepared to move DSA out of his home. Considering the \$12,000 price of admission, it's unlikely that an assembly line will be needed, even under the best of circumstances—but I bet Mrs. Hurlburt wouldn't mind his outsourcing the construction of the Phono II.

Use and Sound: Connecting, configuring, and using the DSA Phono II was a pleasure, with one exception: its five blue LEDs are *bright*—too bright, particularly if the preamp is placed level with your head when you're seated in the listening chair. The glare obscures adjacent button functionality, though it doesn't take long to learn what each button does.

The sound of this all-FET design was fast, fast, fast—and transparent. If your taste leans toward the tubey and rich, you might find the DSA Phono II on the overanalytical side, though I think it's among the more neutral-sounding phono preamps I've yet encountered.

The Phono II's high-frequency performance was "crystalline" without being edgy or glary. Transient performance was precise without accentuating leading-edge definition. Because of the speed and extension, cartridge loading must be done with great care.

The fast, limitless extension on top could so draw the attention that you might be led to think that bass is shortchanged, but try Daft Punk's sonically spectacular *Random Access Memories* (LP, Columbia 88883716861), recorded using real instruments and, some say, on analog tape (I'm trying to get the real story). The bass extension was full-bodied and well extended, with visceral physical impact. The DSA left nothing on the table at low frequencies through the Wilson Alexandria XLF speakers.

As the company's name implies, the Dynamic Sounds Associates Phono II was among the most dynamic, if not *the* most dynamically expressive phono preamps I've yet heard, particularly on the bottom.

With the right cartridge-one that's not too analytical or bright in its own right–the DSA could be a real cream puff. For instance, the half-speedmastered edition of Doug MacLeod's There's a Time (two 45rpm LPs, Reference Recordings Mastercuts RM-2507) sounded positively rich and fullbodied in the mids via the Miyajima Labs Takumi cartridge (see below). This high-resolution digital recording, recorded live by Keith O. Johnson at Skywalker Ranch, is as spacious and deep as Johnson's classical recordings for Reference, and the DSA reproduced a soundstage of appropriate width and depth. In "Ghost," MacLeod's tapping foot, well down in level, produced subtle, deep, concentrated pulses that convincingly reverberated and settled across the stage. Used with the Miyajima Takumi (\$1800), the Phono II could *never* be accused of being bass shy or lacking bass expressiveness-or of midrange thinness, for that matter. It's not the fastest cartridge on the track, either, and the DSA didn't speed it up or produce false edge definition on top.

Switching to the more-than-fivetimes-as-expensive Ortofon Anna that I reviewed in May (\$8499) (easy to do on this versatile phono pre!) produced greater transparency, more space from front to back and from side to side, more air around voices and instruments, and even more bottom-end weight with no loss of low-frequency authority but the Takumi has a sonic "direct connection" to the music that seems unique to Miyajima Labs cartridges.

Switching cartridges again, this time to the Stein Aventurin 6 Mk.2 (\$6495; see review below), produced another completely different sonic picture, one that was fast, lively, precise, superdetailed, and somewhat leaner than with either of the other two cartridges. My cartridge swapping led me to conclude that the DSA imparts very little, if any, of its own character to the cartridge. Still, if I had to describe its character, I would have to call it "transistory"—which is, of course, the kind of product it is.

Because of noise problems, Douglas Hurlburt discourages using the 66dB gain setting unless it's absolutely necessary. The 0.2mV-output Miyajima Takumi and 0.23mV Ortofon Anna required 60dB of gain; sitting in my listening seat, I heard no hiss at normal volume levels. If those cartridges didn't require the 66dB setting, only the very lowest of the low-output cartridges would. That's where stepup transformers are a necessity, in my opinion.

However, when I put my ear next to a speaker, I heard another kind of noise, a quiet, midrange-rich whirring that sounded like a distant machine shop—less like pink noise than purple noise. I don't know what it was, but it was so far in the background that I didn't consider it a major problem (though you might). Of somewhat greater concern was the Phono II's willingness to pass along line impulses—such as the fairly loud *pop* I heard every time my central airconditioner switched on.

A bigger problem was this oddity: When I used the Stein Aventurin 6 cartridge, which uses a Benz LP motor—nothing exotic—for some reason, the motor of my Continuum Audio Lab Caliburn turntable, located more than 3' away (its computerized motor controller is a bit closer), produced through the speakers a whirring noise that was clearly speed related. I've had the Caliburn for seven years now and had never heard anything like that.

Those burps aside, the DSA Phono II was an accomplished performer: tonally neutral, fast, well extended, transparent, superclean, ultradynamic, and superbly detailed. Its top-end performance was addictively open and transparent, with no hint of glare, grain, or glaze. In the attack/sustain/decay department, the Phono II was fast, precise, and clean on the attack, a bit less than fully generous with sustain and decay. Even properly loaded strings may be a bit less lustrous than some might like.

But overall, if you don't like what you're hearing from the DSA Phono II, lay most of the blame on your cartridge or how it's been set up.

#### CONTACTS

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## MANUFACTURERS' COMMENTS

### **Dynamic Sounds Associates Phono II**

More than just customary thanks are due to Stereophile for publishing its review of our new phono preamplifier, the Phono II. While we at Dynamic Sounds Associates (it's true- I'm not really all alone on this project) plan to broaden our line in the coming years, the Phono II is our only product at this time. We also have the simplest form of distribution possible-- we sell directly to audiophiles.

Because of this, critics of Stereophile have suggested that we were too small a company to be considered, or that we had to pay for advertising before we could get a review. We are happy to acknowledge that these comments were unfounded. When Michael Fremer heard about us, he graciously offered us the chance to get on his dance card, with his only motivation being an interest in our innovations and his love of audio.

As we have all come to expect, Michael produced a thorough and honest evaluation regarding all aspects of the unit. We are delighted by his confirmation of its performance, "...among the most dynamic, if not the most dynamically expressive phono preamps I've yet heard, particularly on the bottom," and that he found that the Phono II's "high-frequency performance was 'crystalline' without being edgy or glary. Transient performance was precise without accentuating leadingedge definition." We always knew these observations to be true, but to see them in print from such a true lover of analogue vindicates the work that has gone into this project.

However, Michael did find some faults: "its five blue LEDs are bright—too bright, particularly if the preamp is placed level with your head when you're seated in the listening chair." He also observed some faint background noises and he experienced a "whirring noise" that was associated with one of his cartridge/ turntable combinations.

The good news is-- we've solved these problems on current production models. The bright blue lights (as well as our other LEDs) have been tamed thanks to a four-step dimmer switch easily accessible on the bottom of the Phono II. The background noises were the result of pickup within the back panel circuit board and we have designed a new board that, as far as we have found, eliminates this issue. This board is being incorporated into all current production units, as well as retrofitting all previous units. We would welcome Michael taking the Phono II for another spin to confirm the effectiveness of these fixes.

Our goal has always been to produce components that add as little as possible of their own personality to the single path; and, of all the praises Michael had for our phono preamp, it was his closing thought that gratified us the most, "...if you don't like what you're hearing from the DSA Phono II, lay most of the blame on your cartridge or how it's been set up."

Finally, Michael is correct that "Mrs. Hurlburt" would love to see DSA reach the point of success where we could engage in, "....outsourcing the construction of the Phono II." However, "Mrs." Hurlburt, completed her studies for an M.D., holds a Ph.D. from McGill University, and is a retired research professor from Harvard Medical School. It is her appreciation, tolerance, and understanding of my life long audio passion that has made this journey possible. She will always be my perfect mate.

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