Designer Doug Hurlburt reflects on the advent of the Phono III

Those people who knew me in the years before I started DSA know that my primary goal was always to design and build a phono preamp. I initially took on this task based on a dare from a member of the group of audiophiles of which I was a member, the bAS—or "Backwoods Audio Society." The majority of this ersatz group lived in Southern Maryland, while my wife and I lived in the western suburbs of Washington, D.C. Nevertheless, we would meet regularly and roam to the home of one—or sometimes two—of the members on a Saturday afternoon for a dose of audio fun, some listening, pizza and appropriate audio grade liquid refreshments (often home brewed by one of the members). At the time I was using a well-respected line stage that had a built-in phono stage to go with my moving magnet cartridge. I was in the habit of tweaking this phono stage—changing components, trying various modifications—and about once a month my bAS compatriots would come over to hear my "tweak of the month." After several months of this experimentation, one of the members (Rich Hollis of Hollis Audio Labs) said—much in desperation—"Doug, why don't you just design and build your own %*#@ phono stage." After all, I had already built my 125W power amp (the precursor to the Amp I), why not build a phono preamp? After some thought, I figured—why not? And, as I think I can say—"the rest is history."

The DSA *Phono-ONE* was the first product to come from the newly formed Dynamic Sounds Associates and it rapidly developed a following based on its sonic attributes (Rich Hollis still uses one today). But it was not until I loaned a *Phono-ONE* to David Sckolnik, for many years now the DSA marketing guru, that DSA and the Phono ONE really "took off." (And, as an aside, now that I had use of a phono stage with sufficient gain, I had come to appreciate the beauties of moving coil cartridges.) Shortly afterward, David arranged a "cross country tour" of a *Phono-ONE* via his network of audiophiles. Reviewers and manufacturers, and we gathered inputs, comments, and ideas for an improved version that would become the *Phono II*. To meet an increasing demand for user friendly, highly accurate vinyl playback, the *Phono II* was designed with three inputs, switches to permit the user to select the cartridge type and loading for each input, gain steps of 40, 50, 60, and 66dB, plus phase inversion and stereo/mono modes of operation- and all of this selectble on the front panel and mostly on the fly. The multiple inputs and loading selections were new; the other features were derived directly from the *Phono-ONE*. The basic circuit topology was unchanged from the *Phono-ONE*, but the addition of the multiple inputs and loading selection added a measure of complexity at the "control level." The *Phono II* rapidly became a favorite among audiophiles and is still regarded by many as one of the finest phono preamps available today.

After the *Phono II* release, it was a question of what to do next—and the *Pre I* was born. Here was my opportunity to continue my design philosophy to the "next level" and design a companion to the *Phono*

II that would both enhance and compliment it. The *Pre I* also introduced me to remote controls, digital counters, and the extreme difficulty involved in designing a highly accurate, very wide-band attenuator that could be remotely controlled. It also introduced me to John Chapman who has designed the most beautiful remote-control unit I have ever seen, and it was his collaboration that made the remote-control features of the *Pre I* possible. John provided not only the remote, but the pre-programmed ICs required to both operate the attenuator, and those needed for the digital displays on the front panel. Without John's assistance, the *Pre I* would never have come to fruition.

After the successful introduction of the *Pre I*, which has now received multiple awards and favorable reviews, it was apparent that DSA needed to round out the DSA product line with a power amplifier. (I should have quit while I was ahead, but now that I was fully retired from a day job I loved, I needed something to keep me busy and off the streets). Besides, my wife and I had relocated to a beautiful home in Naples, FL where I had a complete "suite" with both a large listening room, plus laboratory and assembly space (I could even live there if my wife tossed me out since it had a full bath and kitchen).

Having built a 125W Class A power amp years ago for my own audio system, I had some design concepts and knowledge of what was involved in a pure Class A power amp. The problem is always getting rid of the heat generated by such an amp, and I took an unorthodox approach by introducing a fan cooled 125W Class A mono-block amp wrapped in a package that carried on the esthetic design features that had become part of the DSA family of components. Based on an all JFET and MOSFET design, the DSA *Amp I* has recently received a "glowing" review for its sheer dynamics and transparency that places it in the ranks of power amps selling for many times the cost of the *Amp I*.

It was at this point, after looking back over the range of preamps and amplifiers that I had developed over a 16 year span, that I decided to return to my "roots"—the phono stage. I always had some nagging thoughts about some aspects of the *Phono II*, in spite of its wide acclaim—things I had wanted to include but hadn't figured them out at the time, plus some new and novel features to enhance the overall listening experience. Could it be possible for the listener to adjust the cartridge loading from the preferred listening position? Can multiple playback curves—for those having collections of older LPS—be incorporated? Can a remote control be designed to operate the majority of operating features?

Using a *Phono II* as a testbed, some component changes were made, introducing newly available tightly matched JFET devices to see if there were improvements to be made in the sound. Based on multiple listening tests the decision was a resounding "yes", that while the changes were subtle, the overall sound was now even "warmer" and more involving than was the sound of the *Phono II.* After discussions with the DSA marketing arm, I embarked on the full scale development of the *Phono III*. This was designed to be a phono stage that embodied every possible feature that could be desired by the user, plus the added feature of remote-control operation for many of the primary listening features. As I delved into the design it became rapidly apparent that the unit also had to incorporate a "memory" capability to retain the loading and gain settings or else the user would need to have a memory that was much better than mine. I also made some topology changes in the amplifier gain stages for the purposes of lowering the overall noise floor of the unit. Again, John Chapman provided the remote-control and the components for operation, but now coded such that it could be used in the presence of a *Pre I* while preventing the two remote controls from "talking" to each other.

A totally new chassis had to be designed, and a “silver on black” front panel was introduced, while still retaining the classic look that has become synonymous with DSA. The *Phono III* made its debut at the 2nd Annual Florida AudioFest in February, 2020. Since then it has been undergoing some additional refinements and tweaking of the control logic, but now it is available for the world to see and enjoy.

Thanks for your attention,

Doug

Douglas Hurlburt, Ph.D.

Founder and Chief Design Engineer

Dynamic Sounds Associates