Shunyata Research • Hydra Triton and Typhon Power-Conditioning System

by Tim Aucremann | March 14, 2013

"No other device that I know of achieves what the Hydra stack does. . ."

The Shunyata Research Triton is the top model in the company's third generation of Hydra power distributors. It sends electricity from a single wall outlet to eight sockets (ten in 240VAC units) using a buss system that Shunyata claims is capable of supporting the current demand of virtually any audio system. The Triton is an entirely passive device that also provides its client component with noise suppression and surge protection.



The Typhon is an entirely new product for Shunyata: a power distributor add-on that contains no active circuitry and attaches in parallel to the Triton via a short umbilical. The Typhon augments

the Triton's noise-suppression function, acting as an additional sink for draining away high-frequency noise in the form of EMI and RFI riding on electric current before components pull it into their power supplies and turn it into a noisy audio signal.

One might imagine that a power distributor will supply current from the wall without limitation. Regardless of design, every power distributor, indeed every component, even the wire from the wall, impedes current delivery to some extent. For Shunyata CEO Caelin Gabriel, the question became, Is the amount of current limiting relevant to the intended application? When designing the Triton and Typhon, Gabriel aimed at minimizing the loss of what he calls "dynamic transient current delivery" (DTCD) -- in other words, the instantaneous availability of the amount of current called for by an audio component whenever it needs it.

To learn the relative reactive character of various materials. . .Gabriel, ever the research scientist, did what scientists do: he measured.

To learn the relative reactive character of various materials -- that aspect of their current-limiting impedance resulting from capacitance or inductance -- Gabriel, ever the research scientist, did what scientists do: he measured. Developing Shunyata's latest Zi-Tron power cords, Gabriel measured their DTCD as a pulsed current draw -- the very type of on/off electricity draw that audio power supplies perform in microseconds to fill their capacitors. He also measured the impedance present and the voltage drop during the transient current pull, exactly the data needed for evaluating which materials and wire topologies to use. While current delivery is not the sole factor influencing sound quality, having the required current on hand is key to any component's peak performance. Gabriel was surprised at the ability of his DTCD test bench to reveal tiny differences in current loss between large wires only an inch different in length. (There are plenty of technical videos and detail of DTCD demonstrations available on the Shunyata website.) Gabriel knew material differences in power-cord and -distributor construction were clearly audible. Now they were clearly measurable.

The codification of DTCD analysis into a methodology proved so exacting that Shunyata used it to select each wire, connector, breaker, and contact point, every subpart and whole found in the Triton and Typhon based on the part's ability to minimize DTCD loss. Inevitably, this led Gabriel to design and custom-build many of the components used in the Triton and Typhon, such as the Triton's new brass-alloy buss system.

Compared to earlier-generation Hydras, which date back to 1999, the Triton is essentially a new Hydra, one whose design was driven by Gabriel's work with current delivery. He created a new wire geometry (called VTX) that mimics hollow-core wire to reduce variations in resistance and current-density fluctuation due to skin effect. To maximize current throughput, the Triton's unified buss system minimizes connection points and material differentials. Wherever there is copper, Shunyata continues to use none-purer CDA-101. Among the few parts shared with the preceding Hydra V-Ray are the NextGen TMOV devices and a custom-made electromagnetic breaker, which together provide surge suppression. The breaker is meant to be a system's last line of defense in an over-current situation where a mains breaker fails. The Triton's breaker is set to approximately 20 amps, but it has a slow response time to prevent it from flipping when turning on a high-current amplifier.

Caelin Gabriel may be the audio industry's preeminent materials scientist actively addressing power and signal delivery as well as its leading expert on pulsed-current power supplies as a cause of audible distortion. He certainly has the patents to prove it, and his research dates back to his days working with signals acquisition for a military division of the NSA and his later work with super-high-speed Ethernet devices.

Gabriel learned that the EMI generated by any audio system is far more harmful to its sound than whatever comes off the electric grid into your home. Depending on geographical location, power from the wall is comparatively noise free, while the likes of switching power supplies, bridge rectifiers and digital circuits add high-frequency energy to electricity and return a backwave of noisy power both to themselves and, via a power distributor, to other components. When it arrives

on the AC, power supplies can pass that high-frequency noise to their outputted DC and into their components. The result is a worsening of the signal-to-noise ratio and blurring of the audio signal, leading to distortion, for example, of microdynamics and subtle timing differences. When you realize the amplified audio signal sent to your speakers is ultimately the product of the modulation of power by a source signal, it makes perfect sense to include power conditioning as an integral component of power distribution precisely to prevent the system's power buss from acting as a noise-transfer point.

The Triton targets the reduction of EMI in two ways. Unlike power conditioners that use a series of large capacitors to reduce high-frequency noise (an approach that increases reactance and limits current flow), the Triton uses what Shunyata describes as a collection of narrow-band microfilters organized into a multiphase differential array (MPDA) that Gabriel likens more to a parametric equalizer than a simple high-frequency control. He discovered the frequencies to target through years of research using DTCD and spectral analysis into the types and bandwidths of noise generated by linear and switched power supplies. The filters were computer modeled to target specific noise bands at different points across the frequency spectrum.

To eliminate even more high-frequency noise, the Triton employs three filters, which Shunyata calls NICs or "noise isolation chambers," filled with a proprietary blend of ferroelectric material they call ZrCa2000. The hot, neutral and ground wires in the Triton each pass through a discrete chamber filled with ZrCa2000 tuned to absorb non-musical energy in the megahertz and into the gigahertz ranges.

Shunyata has long used energy-absorbing compounds in their power products. Users of earlier power cords may recall the famous Powersnake "hiss" that was the sound of such material encased in a tube and sliding around the cord's wiring. Simply placing a power line next to ferroelectrics will achieve some absorption of the high-frequency noise targeted by a compound's specific blend. According to Gabriel, "Noise absorption is achieved through an E-field coupling between the ferroelectric material and the electric field of the noise component of the AC signal." The ferroelectric material converts the absorbed energy to heat at a molecular level.

Before marketing the Triton, Gabriel developed what he described as "a true designer's reference," a state-of-the-art tool for his personal evaluation of the sonic impact of the materials and topologies used to construct it and other Shunyata products. Gabriel found he needed very large quantities of ferroelectric material (and thus large tubes to hold it) to achieve optimal noise reduction. The ferroelectric material used in the NICs was not particularly efficient at energy absorption (and thus not particularly cost effective for consumer electronics) when compared to alternative ferromagnetic materials, for example those little metal ferrite rings found at the end of some signal cables. However, and this is key, the ZrCa2000 blend offered obviously superior sonic characteristics. Building this designer's reference took years, but when Shunyata decided to productize it, they questioned the market's acceptance of a cabinet-sized power conditioner capable of holding the needed amount of ZrCa2000. They decided to split the reference unit into two boxes, with the Triton as described above but using smaller NICs so it could operate on its own. A second box would hold additional ferroelectrics, and thus the Typhon was born.

Critical to the Typhon's ability to reduce distortion is Gabriel's development of (and pending patent on) a method for "increasing the coupling effectiveness of an AC electric field to a ferroelectric substance." He found that connecting, say, the hot wire at a single point to a conductive metal tube containing the ZrCa2000 material, the surface area interface between the wire and the ferroelectrics became significantly larger than that of the wire's surface area alone. Greater surface-area exposure to a larger volume of ferroelectrics means greater noise absorption and, *voila*, more distortion reduction than any previous product from Shunyata Research. This approach is implemented in the Triton's (smaller) and the Typhon's (larger) NICs.

The Typhon is also a wholly passive device containing two NICs that triple the volume of ZrCa2000 compound found in the Triton. The Typhon operates as a parallel filter across the Triton's hot-to-neutral power line and, as such, it has zero impact on the Triton's current delivery. The units are identical in size and differentiated visually from the front only by their respective monikers on an otherwise identical Hydra nameplate. The Typhon weighs in at 43 pounds, five more than the Triton, and together the two units tip the scales around 81 pounds. On its rear, the Triton has its power sockets, a special Typhon port and an on-off switch. The Typhon's sole interface is a single male A20 port on its backside for connecting to the Triton.

All stacked up and ready to go

The Triton+Typhon -- the "Hydra stack," as I'll call them together -- is simple to use. Plug your components into the Triton, plug the Typhon into the Triton, plug the Triton into the wall, turn on components, play music, enjoy. At twice the weight and nearly four times the surface area of a Hydra V-Ray, the biggest challenge is choosing where to locate the combined units. The AC plugs on the US version of the Triton run *horizontally* across its back, so take note if you are replacing an earlier model Hydra whose power cords just reach.

The Triton and Typhon can be stacked or placed side-by-side. If you do not require all eight of the Triton's AC outlets, you can plug the Typhon's connecting umbilical into any one of them. This is Shunyata's recommended method, and it works well if you choose to stack the units, which is what I did. Otherwise, the umbilical from the Typhon can connect to a dedicated C20 Typhon port on the back of the Triton. Choosing a connection method determines the umbilical's construction, and Shunyata provides a form to indicate position and connection choice prior to ordering.

Shunyata supplies a well-constructed, generic black connector cable, but those spending nearly $10,000 on power conditioning will likely order an umbilical from Shunyata's Zi-Tron lineup. More so than I anticipated, the short umbilical influences sonic results, and I'll touch on that downstream.

The Typhon bears an infinitesimal current load, so it doesn't require much in the way of break-in. Shunyata recommends giving it five days of "settling" to reach its potential. New out of the box, the Triton was godawful rough: bass was muddled, and anything above 1kHz (upper-octave strings, sopranos, etc.) was etchy and jagged, but glints of promise from lower-midrange woodwinds and tenors shone through with air and dimensionality. If online forums are any indication, some audiophiles will enjoy tracking the Triton's break-in with the ferocity of a newly minted actuary, but I found that it sounded good after a week and gave it another three weeks before taking serious notes. The unit opened up a bit more in tiny increments across a month.

Space is the breath of art

From the original Corian-clad Hydra to the Hydra-8s and V-Rays, I've had all the large Hydras in my system at one time or another. Review components come and go, my reference gear has changed several times, but a perusal of past reviews and listening notes confirms that the various Hydras delivered a remarkable consistency of impressions regardless of the gear du jour. In retrospect, each new Hydra came with the familiar refrain of incremental gains in lower distortion. That meant quieter backgrounds with less grain and hash, the emergence of new musical detail, improved timbre, more refined dynamic contrast (especially in the mid to lower frequencies,) an expansive soundstage with better image focus, and, of course, the Hydra hallmark of weightier bass with clearer leading-edge articulation and improved extension. Despite a constancy of descriptors (accurate as they may be), limitations in the audiophile vocabulary should not belie Shunyata's continuous innovation. Over the years, each succeeding Hydra's audible improvement in my system -- the emotive advance, if you will -- has been very real.

When I swapped out a Hydra V-Ray II for the Triton, I was surprised to discover that Shunyata simply skipped what in the past would have been more than a generation's worth of incremental improvement. If you are already experienced with what a Hydra can do, I can tell you the Triton improves on *everything* and not by a small margin. Yes, the same qualitative characteristics are there with the same adjectival modifiers: increased clarity, detail and harmonic richness, gains in soundstage dimension and image focus, firmer and weightier bass. But there are only so many "more thans," "deepers", and "clearers" one can write before the differences in degree are diminished by the repetitiveness of the vocabulary. Unique to this latest generation, I

. . . there are only so many "more thans," "deepers", and "clearers" one can write before the differences in degree are diminished by the repetitiveness of the vocabulary.

heard a Hydra that offered no audible hint of on-demand current limitation. Having used, heard, and compared them all, I'll stay away from hyperbole and simply suggest the improvements achieved by the Triton amount to more than the gains made from the first Hydra through the V-Rays -- an order of magnitude, if you will. Caelin Gabriel created the Triton largely from the ground up, and frankly it blows away his previous impressive body of work.

All of which set me up for the complete gobsmacking, "release the Kraken" moment that came when I added the Typhon. I was already using both the Triton and a full loom of Shunyata Zi-Tron Python signal and power cables. Adding the Typhon to the Triton was an upgrade that, to lapse into the language of dialecticians, represented a transformation of quantity into quality. The Hydra stack removed so much electronic scrim and haze from the signal reaching my speakers -- which in turn delivered so much additional musical information in a compellingly satisfying way -- that I had no idea just how much noise was distorting and masking my system's sound. The stack acted as a causative agent in the suspension of disbelief-beyond-expectation. Unicorns shat musical ducats and the oceans rose.

With the Typhon in play, my system reproduced music with physicality and body. Music more closely evinced the tone, definition and vivacity of sound in real space that we take for granted when listening to real musicians performing in rooms and halls. Without realizing it, my ears sensed less artifice or mechanism, easily accepting the new listening experience as simply natural context. Across timing and amplitude changes no musical event lacked improvement, no frequency was bereft of the Typhon's touch. I became more involved with my music, and nightly listening sessions turned minutes into hours of natural delight. I owe you an account that breaks down that experience analytically, but know there is a gap between my ears and my adjectives, between the words and the reality they describe. Frankly, the hearing was much more captivating and impressive than the telling.

With my front-end components on the Hydra stack, I listened to Melody Gardot perform the eponymous title cut from her album *My One and Only Thrill* (LP [Verve B0012563-01]). I heard how her vibrato comes from her throat, how she inflects words with her teeth and lips, how her tongue comes off her palate as she slowly, *slowly* lets the breath ease out her mouth to form the final "k" when she sings "Ships may never leave the doc. . .k." I heard how the percussionist's brushes shivered, like bird wings lifting off, at the end of "Baby I'm a Fool," each fluttering strike remaining clear and distinct as it grew fainter across the decay. The soundstage spread four to five feet outside my speakers. The final bass note that ends the final line of "Somewhere Over the Rainbow" seemed to arrive from my speakers after I lifted the tonearm. Sound bloomed up and outward, escaping the hands of Pualinho Da Costa as he lifted them off the taut skin of the conga. I did not hear these details as details unless I went looking for them. The net result of all this additional information was a heightened realism where each tiny moment, each nuance and inflection, furthered my appreciation for the performance at hand. I put down my pen, switched off the review vocabulary, cued the record again, and wallowed in the music.

No manifestation of the Typhon's ability to reduce distortion and deliver aural information was keener than its unmasking of previously hidden or smeared musical signal timing. Our auditory brains compute ear position and sound-arrival differentials into a source-location map of surrounding reality. It is an ancient skill, and we are highly adept at it. Just as it is easy to spot a lip-sync slip in a live concert, a visually perceived live performance and my internal aural picture of it confirm one another. At home, in the absence of musicians, the process is different and it's not as easy. The recorded performance space reproduces into the very different acoustic of the listening room without the confirming visuals of the live experience. In my room, the absolute sound remains a benchmark, and as much as I want the live experience just to happen, the absence of concert-hall visuals meant my brain cogitated the aural into an internal visual, forming mental images of what I heard. The less I find myself thinking about the reality of the music the more real it becomes.

Cleaner power through the Typhon meant enhanced discrimination of time-arrival cues, and I found myself doing far less work and simply sensing the performance space and the performers within it, all of which took me to a perspective further from listening to a stereo and closer to the audiophile miracle. As good a soundstage as I have heard thrown with the Triton in place, adding the Typhon was like turning a CAD drawing of a bas-relief panel into a three-dimensional sculpture and using far fewer cycles to get there.

The Hydra stack delivered not only a clearer, more dimensionally developed venue context, it let me hear how sound moved within that context and was affected by it. It was easy to hear how Aaron Neville used his mouth and throat to form notes and words throughout his album *Warm Your Heart* (LP [Classic Records/A&M Records RTH 5354]), but the lack of reflective information led to a sense of sonic suckout that made clear he sang from a booth. I had the impression of a dimensional Aaron Neville head, but no amount of post-production reverb could add the cues that placed it on a body in a live room with other musicians. And yet when I heard paintballs of tone color pop with reverberation then recede into a dead flat-black background at the start of his "Everybody Plays the Fool," and despite knowing that was a studio-engineered effect, the result was sheer musical delight as my system rendered notes actively moving back to front within the soundstage.

The Typhon's effect was profound with music containing the ambient information of a recording done outside a studio. Consider the English Concert and Choir in London's ancient Temple Church performing Heinrich Biber's "Missa Christi Resurgentis" (SACD [Harmonia Mundi HMU 807397]). Scholars believe Biber wrote the work for performance in Austria's Salzburg Cathedral, where, in 1774, musicians and choristers sat in four raised organ galleries. The English group partially mimicked the Salzburg layout by placing choirs of singers and musicians at four corners of a square. The music features the groups in antiphonal dialogue and occasional joint harmony. The large stone cathedral with its 36' vault makes claim to excellent acoustics. With the Triton in place, I listened to the stereo track. I heard a four-corners perspective, but it was flattened out, with the back corners mashed up next to the front. Voices and instruments sounded clear and well focused; however, cross-group musical dialogue and combined harmonies within the reverberant ambience left a bit of a muddle in the middle of the soundstage.

Adding the Typhon not only improved the clarity, focus, and dimensionality of individual performers, my aural brain gained a more realistic image of the overall venue. Vocalists and musicians became spatially discrete within their respective groups. They no longer appeared aurally as sources stacked on top of one another. The two near corners of the square pulled closer to the front of the soundstage and narrowed slightly while the back corners receded with their width closer to the speakers. I'm sure the perspective would be simpler if I'd listened in a surround-sound system. Nonetheless, with the Typhon in play, the spatial relationships of the sound sources inside the acoustic envelope became rational with perspective and I now "heard a square."

Given how the Hydra stack helped resolve the venue context, I was surprised that the cathedral's reverberant spaciousness diminished. Newly processed timing differences from sounds bouncing off the many-faceted stone surfaces made the sonic air inside the cathedral sound less fuzzy, less pixilated. This was not a perception of space itself but an aural map drawn from the interaction between sound waves and the objects within the space in which they moved. Music from right-rear trumpets and cornets hovered high above voices and strings without glare or edge. The mid-soundstage muddle resolved into a clearer blending of contributions from the individual corners. Along with making the overall context more obvious, I now perceived the harmonic bloom that radiated up and out from the individual groups. The Typhon took a less obvious sonic venue, crossed over a chasm of confusion, and landed my ears into a listening experience closer to the reality of the recorded event.

Equally impressive as its resolution of timing information, the Typhon functioned as a tonal-saturation device. Wherever a note was in its development, from first launch through decay, I heard a new timbral richness of harmonics and overtones that remained intact across variations in amplitude. Decaying notes sounded quieter but not thinner. The Typhon made definitively clear the line between final ember and first silence. These improvements varied with each recording, yet every instrument I heard, including the human voice, sounded more like that instrument live. On instruments without a fixed interval, the Typhon delivered more information about the bend of a note, such as when a musician uses his finger or mouth to create vibrato or slide from one note to the next.

For example, on the Biber piece I no longer heard sharp edges from trumpets in spots that I'd thought were brightness or tweeter distortion. The Typhon brought a wee bit of rounding to leading edges; I heard this not as a softening or loss of information, but as the absence of ringing, as a clarification of the smooth start of the note by the musician's control of air at the mouthpiece. With the Typhon in place, music was consistently more organic and easeful, with far less mechanical character.

When I heard the clarinet and oboe solos toward the end of Leo Delibes comic ballet *Coppélia* (LP [Classic Records/RCA LDS-6065]), my eyes popped open. Here was as believable a performance and as realistic an experience as any I've had thus far from my system. Each musician modulated the frequency and amplitude of notes, with their breath and mouth, hanging onto tones with tenacity or slipping out of the fundamental and on to the next; the notes did not thin out with changes in dynamic; harmonics were dense and rich as they radiated within and without the wood bodies of these instruments. For twenty brief seconds honest-to-real woodwinds hung between the speakers. I played the clarinet for years, and the experience was like being near one. Better recordings sounded more realistic, but the heightened tonal saturation was there on every record I played. Make no mistake, this was no after-the-fact, Photoshop adjustment by the Typhon; rich music was on the record. Call it improved tonal clarity -- the added subtlety and nuance triggered a palpable credibility more impressive than words suggest. Less noise meant more information, and more information meant heightened realism.

And now a few comparisons

In every category, the Triton improved on the V-Ray II's ($4995) virtues. The comparison is simply a matter of how a component sounds when presented with cleaner power using a circuit optimized for its delivery. I heard less grain and tube noise from an Atma-Sphere MP-1 preamp, increased transparency and crisper transients from an Ayre C5xe-MP universal player, finer microdynamic gradations and improved image solidity from both my Audio Research Reference 5 SE preamp and Reference Phono 2 SE phono stage. Regardless of the component mix, when compared to the V-Ray II, music through the Triton was more open, vivacious, and detailed; voices and instruments sounded truer to their tonal selves as they drank from a richer, deeper pool of fundamentals and overtones. Versus earlier Hydras, all aspect of the spaces associated with any musical performance -- the point, field and contextural sources, as Paul Bolin so adroitly described in his VTL TL-7.5 Series III review -- were better defined or, in many cases, newly revealed through the Triton.

When I reviewed the V-Ray II a couple years ago, I noted that its noise reduction helped my amplifiers deliver richer tonality and firmer bass, but its use on the amps came with the tradeoffs of reduced ambient air, faintly rounded low-level transients and a diminished dynamic liveliness. It wasn't a bad tradeoff, but my preferences found me putting the conditioner back on my front-end and returning the amps to feed straight from the wall. With a little trepidation, I put my front-end on a Hydra V-Ray II, then moved the Triton and Typhon to power Lamm M1.2 Reference amplifiers. And there it was, thank you very much, the first conditioner to deliver all the power the Lamms requested, unfettered into the 2-ohm territory of the Wilson Sasha's bass regions. There was the current-delivery payoff of Shunyata's attention to DTCD. From the sock-to-'em bass on Keith Richards' "Words of Wonder" from the *Main Offender* CD [Virgin 86449 2] to "Siegfried's Trauermarsch" in Wagner's *Götterdämmerung* (CD [BPO, DG 289 459 141-2]), when the music called for low-end bass punch or full orchestral weight with combined trombones, string bass, cymbals and timpani, the Typhon and Triton delivered. They did so with clarity of contextual definition and spatial depth, focused and dimensional imagery, instrument-defining pitch in a moving feast of low-frequency transients that evinced the music's vivacity, crunch and "nowness," all without suggestion of dynamic compression. Thanks to clean current from the stack, my amps sounded better than I imagined they could: faster, smoother, quieter and more open, with livelier, cleaner, and clearer music from both ends of the frequency spectrum. I could say the difference was like going from Red Book to SACD, but the results were much more impressive. Jean Sibelius frequently decried attributing a program to his larger works, but when I hear the moving pizzicato bass early in the second movement of his Second Symphony, I get the image of a lean Finnish wolf loping through the snow in a pre-dawn fog, on the lookout for Russian infantry encroaching into his territory. I don't think Sibelius would mind the imagery. A recording from Okko Kamu and the Berlin Philharmonic (LP [DG 2530 021]) did not target that bass with a microphone: the musician sat in the right rear of the orchestra, and I heard his solo from a nothing-special midhall perspective. With the Lamms on the Triton and Typhon, the same delightful line I've listened to a hundred times came with a crisper, better-articulated leading edge and that faint change in pitch which comes when the bassist's finger leaves the string. To my astonishment, I heard each plucked note emerge from the instrument's internal resonator, as energy around the solo bass bloomed outward. A few intimate moments of orchestral bass, moments of musical clarity, nuance and ambience, said all that needed saying about the Typhon's contributions. The Hydra stack did not make the amplifiers better; sans noise signature, the power they delivered revealed the Lamms' innate capacity for sonic finesse.

As you would expect, differences in power cords used to feed the Triton and the umbilical connecting it to the Typhon made a significant audible difference in the stack's overall performance. Feeding the Triton with a Shunyata King Cobra CX yielded heft and sock, but after swapping in a new Zi-Tron Python, the King seemed a wee bit fat and sluggish while the Python delivered more clarity, soundstage depth, and tonal richness. Swapping out the Python for a Zi-Tron Anaconda made a difference not unlike standing outside the concert hall with the doors open. If there is only one place in a system for the Anaconda, it's between the Triton and the wall. I also tried the generic black umbilical, a regular 20A Zi-Tron Python and a short Zi-Tron Anaconda to connect the Typhon to the Triton. The connecting umbilical is what turns the two units into the designer's reference Caelin Gabriel created for himself. While the generic "service cord" opened the Typhon's kimono, compared to either of the Zi-Tron cords, the sound was closed, flatter, and less energetic. The cords in Shunyata's Zi-Tron hierarchy reflect differences in quality but not in kind. A Python umbilical will do the job with aplomb, but the Anaconda is clearly a step up. You will hear what you pay for.

Finale

No other device that I know of achieves what the Hydra stack does -- its effect will not come from changing amplification or speakers or sources or regenerating AC or simply blocking noise at the wall. The Triton offers surge and noise suppression while delivering instantaneous power to components when they need it, and the Typhon serves as its distortion-reduction force-multiplier. Together they are state of the art. High-end audio systems yield high-quality results, and the fact those systems are capable of delivering even higher-quality sound can get lost in moments of musical enjoyment. By adding the Shunyata Typhon to the Triton, my system went to the mountaintop; I heard the sonic improvements that come only with clean power. I don't mean to harsh your buzz, but until you hear your gear without the noise that invariably accompanies its operation, you won't know what the designers of your components intend them to deliver -- you won't hear what you paid for. Caelin Gabriel's research into dynamic transient current delivery and his use of ferroelectrics to cleanse power of noise are genuine advances in the science and art of sound reproduction. Analog: Teres 320 turntable with Verus rim drive, SME Vd tonearm, Transfiguration Orpheus phono cartridge, Silver Audio Silver Breeze phono cable, Audio Research Reference Phono 2 SE phono stage.

Associated Equipment

Digital: Ayre C5xeMP universal player.
Preamplifier: Atma-Sphere MP-1 Mk 3.1 with phono stage, Audio Research Reference 5 SE.
Power amplifier: Atma-Sphere MA-1 Mk 3.1, Audio Research Reference 250, Lamm M1.2 Reference monoblocks.
Loudspeakers: Wilson Audio Specialties Sasha W/P.
Interconnects: Shunyata Research Zi-Tron Python, FMS Zero.
Speaker cables: Shunyata Research Zi-Tron Python, FMS Zero.
Power conditioners: Shunyata Research Hydra V-Ray Version II and Hydra Model-8 Version II.
Power cords: Shunyata Research Python CX, Anaconda CX and King Cobra CX, Zi-Tron Python, Z-Tron Anaconda.
Equipment rack and platforms: Silent Running Audio Scuttle, Mondo Designs amp stands.
Accessories: Wally Malewicz Analog Shop and WallyTractor, Loricraft PRC-3 record cleaner, Audio Intelligent Vinyl Solutions record-cleaning fluids, RealTraps acoustic panels, Shunyata Research Dark Field cable elevators.