I. Antique Sound Lab Hurricane Amplifier

Perhaps once in a decade an amplifier comes along that achieves an entirely new level of musical realism, one that forces the reviewer to redefine the state of the art in reproduced sound.

Such a basic monophonic amplifier, and from an unexpected source, is the Hurricane from Antique Sound Labs of China (Hong Kong). It is capable of producing 200 watts, and they are the sort of tube watts that suggest an even higher power. Given its performance, I wouldn't have been surprised to see a pair of these monoblocks to carry a price tag of $20,000, or more. At $4,400 the pair, it is beyond the valley of a bargain—a virtual steal.

Why do I say so? Because this amplifier delineates certain truths, aspects of recorded sound, that I have heard from no other. Truth to tell, I have learned from what I hear through it. It forces me to work at an expanded language to describe what I am hearing, and that raises the bar on what we should all expect to hear with our basic amps.

The thing certainly isn't prepossessing in looks. It sports eight KT-88s per side (KT-88s that do not have that tube's usual sonic signature), is plain as homemade fudge, and slight enough of weight for a UPS person to tote. From all I can gather from the manufacturer, whose specialty originally was in transformer design and single-ended-triode amplifiers, its basic point-to-point construction is based on classic tube circuitry into which no magic elixirs have been stirred. I keep thinking there must be more, something that would explain its astonishing realisms; but if there is, I remain in the dark about just what. The alternative thought is genuinely disturbing: Were the classic tube amplifiers of three or more decades ago that far ahead of the other components in an audio system?

Setup is easy and, for those acquainted with the "joys" of tube operation, not terribly imposing. It took about a month for the bias of the amplifiers to fully stabilize. Each tube is individually adjustable via a series of eight setscrews, and the ideal operating range is said to be circa 480–485 millivolts. At first the bias would drift downward, even after several adjustments, with the consequence of a too sharply bright high-frequency sound bordering on clipping—maddening, given the Hurricane's quite, quite wide dynamic response. (We also lost a tube or two along the way, not unusual here in Sea Cliff or with tube amps in general. Otherwise, the amplifiers have been, once broken in, a model of stable performance.) Adjusting the bias with this amp is an inexact sort of thing, given the imprecision of the setscrews. We'd aim for the range between 480 and 490 and be happy with that.

After the first month, it was pretty much set the bias and forget it. Given 30 or so minutes, the Hurricanes achieve the desired preset bias and all is well. If it drifts because of line voltage variations, you'll know it.

The first thing I noticed with the Hurricanes[1] was a phenomenon that was almost eerie in effect. Marilyn Marchisotto, in for a listen with her husband, Carl, designer of the Alón Exotica

Truth to tell, I have learned from what I hear through the Hurricane. It forces me to work at an expanded language to describe what I am hearing, and that raises the bar on what we should all expect to hear with our basic amps.

1 If you are not using LPs for playback, I seriously suggest you begin with the stunning Mercury CD remastering of *The Composer and His Orchestra*, with Howard Hanson and the Eastman group. It will reveal nuances few other CDs ever will.

Grand References, said something like this: "The images just appear 'in air'; you don't seem to hear the loudspeakers." You can carry this even further, and you will, once you listen to the human voice or solo instruments: You can hear the "air" on the soundstage opening up, split, as it were, just before the first wave of sound reaches your ears. Uncanny.

When Howard Hanson begins his lecture on orchestral instruments in the *The Composer and his Orchestra* [Mercury], you immediately know he was alone in the hall, that the orchestral excerpts were recorded separately. I had suspected this before, with other amps such as the Edge Signatures, and confirmed it with the recording session's director, Wilma Cozart Fine. But with the Hurricanes, it is not only immediately apparent that the hall is empty—there is no question about that fact—but you can hear Hanson's voice reverberating off surfaces throughout the hall.[2] This ambience reproduction is only a preview of what is to come when you listen to other recordings in your collection.

Almost immediately, if you are familiar with the recording, you'll hear that Hanson's voice, with its nasal Midwestern twang, isn't disembodied any more; you can hear the sound of his chest. The distinctive nasality isn't impaired, but now the voice sounds as if it is coming from a human being, not a ghostly apparition floating on a truncated bed of air.

If you will consider the ambience retrieval and the embodiment of the voice as basic building blocks, then perhaps you'll divine the sonic implications. The retrieval of elusive ambient cues is part of this amplifier's ability to reach well down into the softest part of the recorded range and extract information I didn't know was there. And the reason I didn't, I think, is because the Hurricane, maybe alone among amps, can reproduce low-level cues with full fidelity. Meaning? Most basic amplifiers don't reproduce low-level information with the harmonic structure of that information intact. Maybe the basic "tone" gets through, but the full overtone structure generally does not.

This particular insight set me to thinking about the amplifiers I have reviewed in these pages and how they do not maintain a consistency in reproducing the wave envelope at different loudness levels. For instance, some, particularly the solid-state sweeties, tend to "thin out" at high playback *fortissimos*. Others don't penetrate very deeply into the noise floor. Not with harmonic integrity.

Listen further with the Hurricanes, and you'll hear that the harmonic envelope is preserved throughout its expansive (and convincing) dynamic range. As another experienced listener, whom I invited in to confirm the radical nature of the reproduction I was hearing, put it: "Most great amplifiers can get a life sense of image weight and size in the bottom half of the spectrum. This amp does that through the upper mids and top as well." If you listen to a recording of a cymbal, you're used to hearing something smaller and less impressive than the real thing. Not with the Hurricane. A 24-inch cymbal sounds like something two feet in diameter, with the right "body" and "weight." Or take the tambourine; you almost think you can count the individual rattles of each tam (not to mention get off on their combined harmonic effect), and that before a smack against the tambourine's skin almost lifts you from your chair.

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And what do you suppose makes the reproduced images so palpable? I think it is the Hurricane's great truth, getting the midbass exactly right—that is to say, the orchestral foundation, the make-it or break-it area of sonic reproduction. And this is a function, I believe, of its ability to reproduce the music-wave envelope with equal excellence on both attack and decay, and, vitally, at virtually every dynamic level I could throw at it during my listening sessions. So Hanson's voice gets a body, and if you listen to others, including the voices on Argo's LP of Pergolesi's *Magnificat*, sometimes you think, for a second, that the singer could be real. For the soloist will sound in his/her own cushion of air,[3] quite separately from the rest of the choral forces, but part of the sonic sea as well, in one demonstration of what "continuousness" is all about.

And so when we proceed to the sound of strings, it's almost exhilarating to hear the cellos and double basses singing with their distinctively individual sounds, and with the proper "weight," and so rich in harmonics that you can pick out the individual instruments. Even the violas, usually almost raped in the playback process, have their own souls, and are readily distinguishable from the rest of the string section. You can get some of this truth with a great amplifier, but you have to work at it. With the Hurricanes, you tend to forget to "hear" but find yourself listening beyond the sound to the music played. (Again, the Hanson CD, with its demonstration of the instruments of the orchestra, is a fine place to begin your sessions. The lower strings have a weight, body, and individuation wonderfully new to me in years of listening to this particular recording.)

We also get a solid bottom octave, a bit reminiscent of the truth told by the Audio Research Reference 600-watters and some of Jud Barber's OTL designs for Joule Electra. Try, for example, some of the pedal points on the stunning Maazel/Cleveland recording of Respighi's *Feste Romane* [English Decca is the preferred pressing].

2 I'm assuming that you have damped the first and second reflection point of your listening room so that you hear the arrival of the first wave without pre-emphasis by your room.

3 Just wait until you hear Janet Baker sounding as richly rendered—and almost real—as you've never heard her before.

What some experienced SET listeners have noted about this amplifier is that it sounds much like such a design, but without a SET's usual colorations and with power no SET ever has. You don't hear individual tubes here, as you would if you listened carefully to a pentode design, you hear "one tube," so to speak. The Hurricane has the delicacy of the small amp and the power of the large.

Just as the Hurricanes don't shrink high-level high-frequency images (i.e., transients), so they don't shrink instrumental size in the field of depth. If you think about it and attend carefully to the sound of most any amp, you'll hear a shrinkage of image size at different points in a layered three-dimensional field. This usually occurs toward the rear of the stage, with the result that images closer to the mike will distend into larger-than-life sizes, while those farther back will become near-miniatures. That is an effect you can readily hear on popular music—say, on the best recordings by Ben Folds.

Reversing fields for a moment, the third thing I and my several listening panels noted was the dynamic gradations Hurricane can reproduce. For once, you can distinctly differentiate between the four levels of softness, from *piano* (p) to *pianissimo* (pppp). There is no ambiguity or smearing at the different levels of softness there is with, again, virtually every other amplifier. (The experienced listener will find the degree of clarity in reproducing dynamic gradations a revelation.) The resolution of dynamics in the quietest moments of music probably is the consequence of the Hurricane's amazingly low noise floor, one nearly unique among tube designs. Indeed, I found when inserting the (tubed) Aesthetix Callisto linestage into the system, replacing the superb (solid-state) MBL 6010D, its tube rush actually obscured some of the remarkable clarity of the Hurricanes, much to my dismay. The problem is that the Callisto's noise characteristic occurs in the midbass octaves, and this obscures the potency and accuracy of the amplifiers' clarity in that range.

The Hurricanes, aided and abetted by a new crossover design in the Alón Exoticas, have magnified the differences (and deficiencies) of the linestages I reported upon several issues back (meaning I have had to start the assessment, and with new contenders in the survey, all over again).

The "secret" factor that may help tie all these attributes together is the wonderfully right phase relationships between the orchestral forces. When you hear a human voice reproduced (especially on LP with

Miyabi's new, sonically ultra-deluxe moving-coil cartridge—see below), that voice arrives at your ear the way a perfect reflection does from a mirror. The image is not just perfectly coherent; it is dimensional as well. Maybe I'm not phrasing this as elegantly as I'd like—the phenomenon is easier to hear than to tell—but the sound of a voice, almost always in reproduced sound, arrives at your ear shattered into microfractions of seconds. You hear its "gestalt" and so recognize it (as you do a voice digitally over the phone), but the ear/brain does not accept it as real. That is, the ear/brain imposes order on sound; thus you may not hear the mini-fractures in the transient waveform. But once you've got that waveform sounding virtually without fractures, then your mind doesn't have to correct what it perceives, just as it doesn't when it is hearing a sound absolute, that is, a real sound in the real world. Not only is this "effect" particularly realistic on the human voice, but it is ravishing on the winds.

And there is more. You might consider these amplifiers like a camera lens, with the ability, under all sorts of light conditions, to reproduce a great field of depth. (The aural equivalent, say, of Greg Toland's famous photography in Welles' *Citizen Kane.)* Not only do we have 3-D images exactly focused—placed—anywhere in that sonic field, but those images do not shrink to miniatures as they recede in apparent distance. And they stay wherever they have been placed and keep realistic sizing, no matter what the playback level.

These characteristics, I'd guess, have everything to do with the Hurricanes' ability to render phase relationships correctly. And given the company's expertise in transformer design (which preceded its work with electronics), we might surmise that the amp's "secret" lies therein. (Most transformers, sayeth the Square Wave Handbook, play havoc with phase, i.e., the spin on the waveform at any frequency, usually the extremes.)

Do I have reservations? Well, yes. But considering the fact that these amps recreate a sense of live music second to none, the shortcomings I gladly will live with until someone does it better and in the same respects as the Hurricanes. Still, it took a recent session in Carnegie Hall to help me organize my impressions. These amplifiers, like so many tubed units of (relatively) restricted bandwidth (74kHz at 1 watt; 20kHz at full power), sound somewhat darker than life. It's not like the darkness you hear from amplifiers with gross global negative feedback—the Hurricanes have none, which may help account for the high-frequency transient weight and sizing—but missing some of the "bloom" you would get in a good hall.

Listening to Leonard Slatkin, with the National Symphony, conduct a mostly modern-music program (that featured the McPhee *Tabuh-Tabuhan* and Ravel's *La Valse)*, I heard what seemed to be two basic kinds of overtones on massed strings. One was the set of audible harmonics, which themselves sounded slightly dark, and as if beneath them and softer in level, a quite pure, almost airily light set of harmonics, one I do not hear from the Hurricanes, but do, say, from the Edges or Keith Johnson's Spectral M-360s. I confess this "bloom" I find seductive and one of the things that makes real music sound real. As I've noted before, you ought to go to a concert and pretend, with eyes closed, that you are listening to the world's best playback system. This mental duplicity, will, in an immediate flash, show you how far we have to go in getting a "perfect" reproducing chain, regardless of the sounds you want to recreate.

With the Hurricanes, however, I get more of that ineluctable realism that I get in live music (preferably, but not necessarily, unamplified). And in more respects. Over and over again, you'll find, with realistically miked recordings, that you are listening to the music, not to the "sound." And that, for this reviewer, is both weird and unique. That is why I consider these basic amplifiers to be, overall, the best I've heard. And why I am awarding them five stars, count 'em, five…

A Word to the Wise

Just after we finished the preliminary editing on this review, I learned, indirectly, that the Hurricane amplifiers had been updated, with an eye toward

Antique Sound Lab

SCOT MARKWELL

Joseph Lau, principal of Antique Sound Lab and graduate of the Technical Institute in Hong Kong with an Electrical Engineering degree, was born in 1959; he began his first electronics project at the tender age of 16. This was a linear amplifier for his CB radio, a monster with around 100 watts of amplitude modulation and over 200 watts in single side band. He was a bit nervous around high voltages and initially stuck to solid-state projects. Frustrated by the lack of available high-frequency transistors, however, he started putting together a tube amp for his CB based on 40KG6/PL509 tubes operated in push-pull. After some experimentation, he realized that futzing about with tubes was easier for him than similar work in SS, so he gravitated to all-tube circuit design.

Believing that tube amps from North America and Japan were too expensive for most consumers, and that then-current Chinese efforts lacked quality because of poor design and mediocre parts, Lau decided to start manufacturing tube amps on his own. After working in the 1980s as an amplifier assembler and dabbling in transformer sales and other component engineering, he started Antique Sound Lab in 1994. Faced with problems at every step of the way in his fledgling business, Lau eventually decided to make the chassis and transformers himself, and to do all powder-coat painting on the premises, as well. In 1995 he started true production, with customers in Hong Kong and the US. But the road to success was a hard one for several years, and Lau says he lost a lot of money learning the ropes of sales/distribution and quality control. His company was saved at the brink by Triode Supply of Japan, which ordered sufficient quantities to keep ASL's doors open. The last two to three years, however, have seen a dramatic increase in product quality and much more business in North America, where Lau's products are distributed by Tash Goka's Divergent Technologies.

Interestingly, Lau started out specializing in low-power push-pull and SET amplifiers of classic design, hence the name Antique Sound Labs. By design or serendipity, his SETs combined the sweet, pellucid midrange of the best of that breed with the fast, taut bass and extended highs of more conventional push-pull tube designs. As for me, I believe the man has a real knack for output-transformer design, a skill that lends his amplifiers a certain "rightness" and family resemblance. His 22Wpc AQ1006 845 DT monoblocks that I reviewed a couple of years ago are particularly excellent, and indicative of the line's SET design prowess. Until last year, the most powerful amps ASL manufactured were the 60Wpc, Class-A, push-pull AQ1009 845 DT monoblocks. At that time, Lau decided to take a big leap and put out a couple of higher-power designs, the 105Wpc Q1008-KT 88 DT monoblocks and the current review amp, the Hurricane 200 DT.

This amp, though certainly not Jadis-level in fit and finish, is, like all of the ASL line, more than acceptable in its plain steel chassis and aluminum front panel. Internal wiring and parts selection are of reasonably high quality, as are the tube sockets and connectors. One can hardly complain about anything, given the excellent price structure and performance of the products. I will speculate, though, that premium-quality input jacks and speaker binding posts might improve the sound even further. At a couple of points, I used Pro-Gold to clean all the system contacts, especially those on the Hurricanes, and the system's sound improved markedly, making me want even more. I do not expect ASL to slap megabuck connectors on these things and mark the prices up whole-hog, but a few dollars more spent on better connections would elevate these performance. Perhaps a "Signature" version could be considered, maximizing all aspects of the design, and costing somewhat more. Other manufacturers have done this with remarkably good results.

We did not have the opportunity to try different KT-88 power tubes, but the Chinese models sounded so good I would hesitate to go tube-rolling here, as 16 KT-88s can get pricey.[4] But if one would like to try, it is a nice touch that the need for matching tubes is nixed here, since the bias pots for each output device makes using tubes "grab-bag" style an easy and painless procedure. I *do* recommend, however, for users to play around with the 6SN7 input/drive tubes, as these can make a substantial difference in the sound, and there are only three per unit.

As HP notes, apart from a couple of early tube failures and a bit of bias drifting, the Hurricanes have been completely reliable and quiet through the months we have used them in the reference system. Just when we thought we had a handle on their performance, a change in gear ahead of the amplifiers would make such a big difference in the sound that we realized that the Hurricanes were even more transparent and invisible than we had thought—an indication of a world-class product.

4 The amplifiers may also be used with 6550 output tubes without any modifications, according to Tash Goka, the Hurricane's distributor. SR

sonic "improvement." The critical change was in the eight (per channel) coupling capacitors. And it was the "new" version that was bought by one of my principal listening-panel members during the amplifier evaluation. Trouble is that the new Hurricane didn't, er, "blow him away." Indeed, the sound, especially in the bottom octaves, was bloated and ordinary and the special magic of the original design was gone.

We (meaning several of us, including Scot Markwell) did some investigating and found that the caps in the original units, those I reviewed, are "axial lead, white, .22uF/400 volt" MultiCaps made by Reliable (formerly called MIT caps). The caps in the updated version—which ruin the magic of the design—are "rectangular, red, .22uF/400 volt" made by Illusion; they are marked "paper in oil."

We complained and since then the designer, Joseph Lau, has decided to stick with the original caps. Buyers should open the chassis and check to be sure their units have the originals. Apparently only a few of amps were made with the paper-in-oil Illusions.

DISTRIBUTOR INFORMATION

Divergent Technologies
342 Frederick St.
Kitchener, Ontario, Canada N2H 2N9
(519) 749-1565
divergent@divertech.com
www.divertech.com
Price: $4,400/pair

SPECIFICATIONS

200 watts in a push-pull UltraLinear output circuit
Parallel KT88 output tubes
Point-to-point wiring with no global NFB
Frequency response at 1 watt output of 12Hz–74kHz
Frequency response at full power 20Hz–20kHz
Distortion at full: <3%
Signal-to-noise ratio: 86dB; with A weighting: 93dB
Input impedance: 100k/ohms
Output impedance taps: 4,8,16 ohms
Input sensitivity for full output: 1.7V
Power requirements at full output: 610 watts
Power cord: detachable IEC standard
Dimensions: 16.5" x 21.5" x 8.5"
Weight: 65 pounds

II. Sneak Preview: Miyabi/47 Moving-Coil Cartridge

It has been some time since I've undertaken a phonograph-cartridge survey, and even longer since I've had a chance to explore a Miyabi cartridge. In its long-defunct Ivory incarnation, it was one of my favorites, simply because, despite early-days moving-coil colorations, it got something of music's seductive power right.

In the forthcoming survey, I intend to review, in comparative fashion, the virtues (and perhaps otherwise) of the new Miyabi/47, the van den Hul Colibri, the DynaVector DRT XV-1, and the Koetsu Onyx Platinum. And who knows, maybe more if I can lay hands on other promising designs.

Odd, once you think about it, that the art of phonograph transduction has outlived the heyday of the long-playing record, affording a degree of truth we didn't have back then.

As of now, I have the van den Hul and DynaVectors in hand, and importer Garth Leerer's solemn pledge that the Koetsu will soon arrive. The van den Hul is still not yet "broken in," being tizzy at the top. The Dynavector is cooking and offers a striking contrast to the Miyabi, while the van den Hul would seem (potentially) to combine the strengths of both.

The new Miyabi is the result of a collaboration between designer Haruo Takeda (author of the Ivory) and 47Lab. And according to the literature, written in the netherworld where Japanese and English meet, tells us only that the cartridge was designed "to reproduce this concentration of energy which is the life of music. Instead of a long and thin cantilever tracing the groove, the Miyabi/47's rather bold aluminum-alloy cantilever holds all the resonant energy inside and pours them into the phono equalizer." Um-huh. Got that? The specs failed to reveal any of the minutiae about that cantilever or just how it pours "them" into whatever. We do learn that there is a line-contact stylus, but nothing about its dimensions nor the stuff of which it is made; presumably though, it's a diamond. Nor do we learn the cartridge's weight. But we do get its output (0.3mV) and recommended tracking force (2 grams). And we learn its magnet is an Alnico, which the High End cognoscenti say is audibly superior to any other kind of magnet material.

If I demonstrate an unexpected interest in the technology behind the design, it is because of the Miyabi's sound, which is as good as I've heard from any moving-coil design. Odd, once you think about it, that the art of phonograph transduction has outlived the heyday of the long-playing record, affording a degree of truth we didn't have back then. It actually makes our reference, the Lyra Helikon, sound worn and slightly "old." Directly compared, the Helikon sounds tonally lean, even a bit tattered and threadbare. The "threadbare" quality I'm talking about is the result of a now audible grain structure, which the Miyabi/47 doesn't have. And why not? Because the Miyabi, like its predecessor, the Ivory, of some 19 years ago, has continuousness. Only then I did not recognize that quality so defined. Rereading the review [Issue 32], I see that what made its sound memorable to me, even after all this time, was exactly that, even if it was captured only in the middle frequencies. The great strength of the new Miyabi lies in its continuousness from top-to-bottom of the spectrum, a first in my experience.

For these sessions, we used the latest