

the absolute sound®

Electronically reprinted from January 2008

HP's WORKSHOP

This is the first of two installments about two speaker systems that redefine the state of the art. Each, in my opinion, pushes against the limits of conventional speaker thinking.

Reference 3A Grand Veena Loudspeaker System

This speaker system is like quicksilver; it both adapts to and reveals the character of whatever you feed it. And that makes it a bitch to review. Adding to its b(ew)itchery is a cost under eight grand, unheard of for a speaker of such superb performance.

You want to know what your equipment sounds like? The Grand Veenas will tell you and tell you without a doubt. And beneath these revelations, you can hear the loudspeaker's voice of truth: It goes down, with weight, power, and articulation, into the bottom octave; likewise, it goes up to frequencies beyond most speakers, and without a characteristic high-frequency rise. From top to bottom, there isn't a sonic "signature" in the way we have come to associate with virtually all speaker designs. No upper-midrange blare or glare; no midbass "boom," reticence, or

If I am making an ado over the amount of gear we used, it's because, along the way, I learned so many new things about our usual references.

observable emphasis. Massed strings can sound both lush and smooth, percussion overtones reach skyward. All this rendered with complete smoothness and without those sometimes little cues that let us know how and where a speaker system is imposing its own veil, "character," or "signature" upon the music itself. Let's call this, to be clear, "gestalt" as in the case of either yin or yang.

During its evaluations, I've used a battery of components to see if I could get to the underlying nature of its own sound. In amplifiers, we've used the Burmester 911 Mk III, the ASR Emitter II, the Western Electric 972-As, the Antique Sound Labs Hurricane DT (a revision of the original) and its new triode Cadenza, the

triode Wytech Sapphire, the Danish V/A SS-010, and the Ayon 52B references. We used five CD players, but mostly the Edge G and Lab 47 Pi/Tracer. We used eight linestages, but mostly the Burmester 011 preamplifier and the Conrad-Johnson ART III, along with the Joule Electra LA-150 Mk. II.

We also used the Nordost Thor and Adept Response AR-12 line conditioners, and cables from Nordost, both the Valhallas and new Odins, as well as the Kubala-Sosna Emotions. We used these components in all sorts of combinations and configurations, and learned about the sounds of such couplings, but almost nothing about the speaker itself, other than its protean ability to shapeshift with the best.

If I am making an ado over the amount of gear we used, it's because, along the way, I learned so many new things about our usual references. I had not, for example, ever been consciously aware of a slight glare and grain (transistorized in nature) in the ASR Emitter II amplifier, a discovery that made me yearn for the promised update to that piece of equipment. The Western Electric monoblocks had a quality, especially from the upper middles down to the basement bass, of three dimensionality on these speakers; the effect was, on recordings like *The Thin Red Line* soundtrack, positively uncanny, even awesome in the sense of inspiring wonder and, perhaps in the thunderous ending of cut 9, fear. We discovered that its top-end response, which I found soft and rolled upon its insertion into the Grand Veena, could change, could be extended outward simply by adjusting the bias on its 300B



HP's WORKSHOP

triode tubes (to a minimum of 55 milliamps, or for those who like to live adventurously, 60mA or a bit higher). The Burmesters came out near or at the top in terms of a grain-free purity and dynamic freedom, if a bit less lush than life itself. (I found the Burmesters had a three-dimensional effect on instruments in the lower octaves, and a 2-D flattening out of images further up the spectrum.) And the Conrad-Johnson linestage, I discovered, needed a tube update. With it, it was the most like music of all, still with minor perturbations in its microdynamic response in very small areas of the spectrum. We learned that the entrancingly gorgeous midrange of the Danish V/A (Vitus Audio) amplifiers did not have enough power for this relatively inefficient speaker—91dB or so sensitivity—and, to my sorrow, ran out of steam at the frequency extremes and on thunderous quadruple fortes.

Each time we made any sort of change, and this extended even into changes in the listening room itself, those changes were audible through the Grand Veenas. Shut the drapes a few inches, but not entirely, and the sound became a bit muddy in the midbass. Remove some other amplifiers placed there for the evaluations, and the soundstage acquired more depth and width. Yes, I should have expected this, but not the degree of instant audibility the speakers revealed. After I made note of how the discovery process was seemingly endless, Tash Goka, of Divergent Audio and present-day president of Reference 3A, said (slyly, methinks), “Wait till you play with adjusting the spikes underneath the speaker and its angle into the listening room,” at which point, after nearly 90 days of this, I decided to write, or go crazy. And knew that I would, no doubt, in the wee small hours, continue to learn, moving the speakers an inch this way and another that (one such move of two inches on the right speaker, opened up the soundstage in what I call, without exaggeration, breathtaking fashion). And learning still more about the gear I chose to mate them with.

There are two levels to discuss in the speaker's design. First, though, the Veena is surprisingly compact, only 51" high, 10" wide, and 19" deep (at the bottom, 6" deep at the top), and sloped back (for driver time-alignment purposes) in a way that minimizes their apparent size. The 7" main driver—technically a “full-range driver” as opposed to a “midrange” (since there is no crossover to limit its bandwidth, perhaps a full-range driver used in the middle frequencies?)—is “hyper-exponentially shaped” and made of woven carbon. “Hyper-exponentially?” I asked, and Goka said that I should think of the mouth of a horn, trumpet, or trombone as an example of the shaping. He said this flare-shape “eliminates resonances from cone break-up.” And this “midrange” driver is directly coupled to the amplifier! (There are no crossovers used with it.) News to me, so again I asked Goka, who said that crossovers were used to correct for nodes and peaks in the speaker itself. “There is usually a 4 to 5kHz peak in most midrange units, and crossovers have been used to smooth that out.”

The tweeter is a light silk textile dome “on a voice-coil assembly with a Faraday Ring in a non-resonant back chamber.” With a resonance of 590Hz, it uses a high-pass first-order filter (a non-inductive silver-foil-in-oil capacitor) to keep the lower frequencies

out. The two bass drivers are 8-inch Kevlar-and-fiberglass cones on a long-throw voice coil, housed in a folded port tuned to 36Hz, with a first-order low-pass filter to bridge to the midrange. There is a bit more here that allows, Goka says, the speaker to reach 20Hz at “only” 15dB down. In my listening session, in our Room 2, the speaker easily reproduced the bottom pedal points of the organ (32Hz, usually) without any port artifacts, with audible undertones that made it sound as if it were plummeting down considerably below that. Given the appropriate amplifier power and recorded material (again, start with *The Thin Red Line*), you can feel the air pressure pushing in your chest and vibrating the floorboards.

These are the basics, and though I've outlined them in some detail, there are a few more specs Goka and Reference will gladly supply. I did not ask about these things until I had listened extensively to the speaker and this is why they make sense to me. I take pride in listening first and asking questions later.

There are other refinements, almost tweaky in nature. Reference 3A, started in France almost a half century ago by Daniel Dehay, has a long history of unusual and creative designs. Goka says that Dehay, now retired, was the first to come up with time-alignment as a design principle (a decade before Jon Dahlquist applied the same principle to the fabled DQ-10); the Golden Dimensions rule (in this case, that represents a ratio between width, height, and length—a theory now championed by Cardas, et al., and mumbo-jumbo to this writer); what he called “motional feedback” applied to bass amplification, later called servo-feedback by such champions as Arnie Nudell of Infinity; the extremely limited or non-use of conventional crossover systems (now appearing as a design goal in the best new speaker systems, including this one); and the shaping of drivers for flattest response.¹

In the Grand Veenas, there is a Murata supertweeter, from the Japanese company, that operates from 20kHz to 100kHz. It is a ceramic piezo-electric that operates not as a piston; its signals are “radiated by expansion of the ceramic dome, for wider and more linear dispersion,” Goka says. (Murata tweeters are also available as add-on and very expensive high-frequency units for more conventional designs.) In Goka's opinion, these supersonic frequencies, when reproduced, “promote better perception of not only more spacious soundscapes but surprisingly better defined lower-frequency information.” This doesn't surprise me, given the bleed-down audibility of brick-wall filter resonances in early compact-disc encoding designs. And I believe, after much deduction (can't cut the tweeter out, to be sure) that the Murata gives the Veena a kind of high-frequency, upper-midrange “airiness” that helps define the soundstage much more precisely. In a crowded instrumental recording, you can hear, on this system, the individual pockets of air surrounding, say, a solo violin (cut 7, *The Thin Red Line*, for example), or solo woodwinds in their upper register, or the silkiness of massed string overtones, silkiness in space.

There also are, in the Veenas, two of Jack Bybee's Quantum purifiers. Bybee, one of the Bay Area's highest of high-tech guys, believes that electrons generate their own sound in their flow and that this can be eliminated in audio circuitry, if I understand this

HP's WORKSHOP

aright. Goka believes the purifiers “add more life and realism to the music without getting in the way.” Well, maybe so. I believe that these are separately available and am just itching to put them on a new system I have gone goo-goo trying to see if a difference can be heard. Is it all Goka and Bybee fans say it is? Here the technology is integrated, so it's part of an already most revealing (sonically) package, and it is almost impossible to know which technical device or design is contributing what. What does impress me is the length a small Canadian company has gone to for what is essentially a most inexpensive attempt at the state-of-the-art.

Oh yes, one more thing. The Veenas contain AVM vibration control fluid, which is applied to driver voice coil and parts of their cones to reduce resonances and induce more rigid cone behavior.

Yes, this is now and will be in the future considered a classic of its kind. It is, purely and simply, a great loudspeaker

Truth to tell, after listening and listening and listening to every kind of material I can think of, I just don't (yet?) hear what the speaker itself is doing. Listening to the same material on a much larger and more elaborate (but equally revealing and accurate) system in Room 3, the main differences I hear are those of scale and size. The Veenas do not, as far as I can tell from their use in a smaller room, have the “big” sound of the main reference, and hence, they lack the concert-hall effect, the near realism of hearing the same amount of air moved that you get sitting near an orchestra. But in terms of frequency and dynamic scalings, the Veenas tell all, if only in reduced and highly transparent fashion. What this means is that the Veenas get all the nuance and overtone information of the big system, just not the sense of concert-hall realism, nor all of the thunderclaps of air the big system can generate on bass drums, tympani, and organ pedal points. If, say, you listen to the XRCD encoding of Mehta's reading of *The Planets* on the Veenas, you'll hear all the subtleties of the lacy string work on “Mercury,” the complex brass and woodwinds interplay on “Saturn,” and the sheer explosions of orchestral colorations on “Uranus.” What isn't there that is on the big reference system is the big space, the huge movements of the air itself in the bottom octave, a kind of, please forgive, “living presence.” Part of this has, also, to do with the sound of a large-scale transient on the big system, versus the Veena where that transient is reduced in size and scale.

Which brings me to another point that you may wish to consider. The speaker itself is not expensive, *but* the better the gear you use with it, the more information you'll get from it. I found the combination of the ART III at \$25,000 and the Western Electric amps at \$90,000 the pair—I am almost at a loss for words here—about as good as it gets. But then consider their cost against \$7900 for the Veenas. That is, to my mind, the most musical of the combos. If you want the seemingly purest,

most transparent sound, you might go for the Burmester 011 at \$17,995 and 911 Mk IIIs at \$24,995, again, at a price to behold. Goka also imports the darker-colored Antique Sound Labs gear, and you could put together, at a much lower price, a system with these—surely a match that Goka has considered (the man says he goes to concerts all the time—he lives in Kitchener, Ontario, which has a stunning hall designed by the late Russ Johnson, the soundspace artist of our time). Cost here would be about \$9200 for the combination of the new Flora triode preamp (you'll need 167 hours for the break-in) and the Hurricane monoblocks.² Bear in mind that I did not use anything less than the best high-end gear in these sessions. I did not say the most perfect, but the most representative of the best work being done.

Is there a conclusion, other than the opening paragraphs of this review? Yes, this is now and will be in the future considered a classic of its kind. It is, purely and simply, a great loudspeaker, no matter how you slice it.

² There is much confusion over prices these days, not only because of the dollar's fluctuating value, but the expectation of overseas buyers that they will be the American list prices. All of this has led to the unhappy situation of coyness in these parts and Canada about list prices.

Errata

In the past issue, we conflated Ed Meitner's two-channel hybrid SACD/CD player with an entirely separate Meitner digital-to-audio converter (one designed for multichannel) and listed the price at \$20,000. It is, in fact, half that, at \$9995.

The fault is my own. Given the sad present-day state of the American dollar versus the Canadian, even that price may not long hold. I found the player to be in the first rank of the dozen or so CD players I have evaluated in the past 18 months—a survey of some of those available last year appeared in Issue 164. It may even be, as I suggested a few issues back, the best. However, read a little further down to learn why a shoot-out is going to be necessary.

The other error, again a flub-de-dub on the price of a Canadian import, came when we reported the price of the Grand Veena's [reviewed above] as \$7000, when we had actually gone to some lengths to get it right—\$7500. So we, of scrambled brains, were about to correct it herein, when we learned from the importer that because of the rising value of the Canadian dollar, the price, maybe by the time you read this, will be just about \$7900 (subject, of course, to the fate the dollar in the next several months—this being written some two or so months before you read it).

It may or may not be one of those lovely and somewhat odd coincidences that the Meitner deck and the Grand Veena speaker are best-buy bargains, both of indisputable Golden Ear quality.