

III. The Alón Exotica Grand Reference Hybrid Speaker System

For much of the history of his company, Alón, Carl Marchisotto's speaker designs, from the top of the line to the bottom, had a surprisingly similar sound. All were quite smooth in sound, if a bit dark and certainly mellow, and low in the kinds of irritating distortions that make the sensitive-of-ear flee the premises. You might, if reaching for an analogy, compare both the consistency and kind of sound Marchisotto, a graduate of the original Jon Dahlquist company, achieved with that obtained from tubed electronics by Vacuum Tube Logic. The sonic similarities were more than skin deep. However, with the introduction of the small Exotica speaker several moons ago, Marchisotto made a breakthrough and came up with something that went beyond his usual sound designs.

The Exotica was not a renunciation of his past work. It emerged from the foundation of those works.

And if I had to summarize what the small Exotica brought to the table, I'd say it was a sense of "aliveness." Much of Marchisotto's previous work might well have been characterized as homogeneous to the point of forgiveness. Yes, his speaker systems always sounded the way music sounds encountered, say, from a mid-hall perspective. But largely missing was the electricity, the appreciative sizzle or chill you get when the music is there, instead of out there.

But some of that nearly ineffable quality was present in the original Exotica. Which prompted Marchisotto to wonder what would happen if he built upon and expanded the system's conceptual base and size. In other words, what might happen if he designed a Super Exotica.

Well, now we know.

Introducing the Exotica Grand Reference.

While the original Exotica was contained in a single enclosure per channel, the Reference comes in two sections per side. Its rosewood look is sleek, even on the sexy side. Imagine the complete set-up of four separate towers, topping out at seven feet high, the front pair between lean and almost square in appearance, the back pair double the volume of the front, containing eight (in toto) 12-inch woofers, ported, long-throw designs driven by ceramic magnets. They are supposed to cover the range from 40 down to 16 Hertz, the supplied crossover being (surprise!) the old (1976) Dahlquist DQLP-1 electronic low-pass filter, in other words, only the lows go through electronic crossover and equalization circuitry; the high-frequency section is a passive one. When this device was introduced in the early days of the Dahlquist company, we found it the best practicable crossover on the market. (We did not test the Reference with a crossover of our own choosing, so we cannot say if the system's performance would be audibly improved by the use of a newer, but not necessarily better, design.)

The main towers contain a total of 18 true ribbon tweeters, made in the US, says Marchisotto, by Raven, a French-based company. And let me pause to say that much of the impression



this system makes, and impress it does, can be attributed to these slightly fabulous ribbons that extend, it is said, from 3,500 to 45,000 Hertz (only my cats and bats can attest to the latter figure). Upon reflection, I have come to believe that it's the true ribbon – not the planar hybrid thereof – that offers the best reproduction of the top octaves. The Ravens rank right up there with Jim Winey's inspired Magnepan design, although physically the two couldn't be more different: The Raven's ribbons are contained within small, square, sealed modules (3.5 inches square), and in this instance, aligned in a vertical array of nine per side; Winey's ribbon is a five-foot-long free-standing design. The Raven ribbons are two inches long by a half-inch wide, that is, per module.

To resume the tour de tower, there are six five-inch midrange drivers per side, operating from 500 to 3,500 Hertz (made in Europe, and, Marchisotto says, "way too expensive"), incorporating Alnico magnets, a touchstone akin to the Holy Grail for this designer. These cast-frame designs operate in dipolar fashion; they are coated with fiber cane and two layers of plastic to damp out any nasty little resonances. What this means, in terms of the system's physical design, is that the central section of the front tower is open on three sides, though for looks' sake, a molded and sexy set of black grilles cover the openings.

Naturally, the speaker sounds far better, particular in terms of the width of soundstage it can reproduce, with the grilles removed, though it does not look handsomer this way. To top it off: Above and below the midrange and tweeter elements, in

sealed enclosures, are four eight-inch mid-bass units per side. Marchisotto says these are hand-made out of magnesium alloy cone that acts as rigid piston over its operating range of 40 to 500 Hertz (its biggest resonance is at 5 kHz, well above its operating range). It is no secret among speaker designers that every driver has resonant peaks, including a fundamental one somewhere. The trick is to use any given driver in the range where it has no (or no annoying) resonances. This requires a kind of magic in setting crossover points and crossover slopes. (Much of the success of the original Avalon design he devised, says Charles Hansen, now of Ayre Acoustics, lay in his ability to keep the fundamental driver resonances well outside their operating range.) The crossover(s) for the three front tower arrays are not in the speaker enclosure, but in an entirely separate casing. The system's impedance is rated, by the manufacturer, at 8 ohms, with a 90-dB sensitivity rating (referenced to what he did not say).

Since the towers are not easily moved, set-up without a crew of Japanese sumo wrestlers takes a while. The placement of the woofer towers is *critical* to the way you will perceive the sound of this system. The settings you choose among those provided by the Dahlquist can also be the source of considerable mischief. Both the woofer-tower placement and DQLP-1 settings can, if so set, provide a Sensurround effect as unnatural and overwhelming as it was in the movie theater. And even with the system correctly placed, it is not difficult to get a mushy and ill-defined bottom end through injudicious use of the Dahlquist's level controls. We wound up with the front speakers facing directly forward and at the Rule of Third points, with the towers two feet (or so) from the back wall and inside, and several feet behind the mains. What you should be striving for, with this design, is that which can be, in fact, achieved: a seamless transition from the front drivers to the woofer towers. This takes some doing – a doing made easier, in our case, by a listening room with substantial resonances. I found to get the most natural sound, in settings between the Krell FPB 600s stereo amp driving the towers – and that amplifier remained a constant in these, our initial, listening sessions – and the variety of amplifiers we used to drive the main speakers, that it was best to start with too little bass and add in bass level until the fundamentals had slam, harmonic definition, and spatial air around the lowest note. Getting natural ambience around low bass notes, such as organ pedal points or the decay of a nine-foot concert drum whack, is something few reproducers can do to begin with. And even with one that can, like the Reference, the “air” can be overwhelmed by a heavy hand on the level control. Ambient cues, I would guess, extend far above their bass fundamentals, and too much bass will blanket the more subtle harmonics up the frequency scale. Set it and forget it, unless you are an inveterate amplifier gourmand, always trying out the new “taste” sensations.

In these sessions, we used the Edge NS-10 stereo amplifier, the Edge Signature One monoblocks, the Vacuum Tube Logic Reference 750 (“Brunnhilde”)* and the more powerful Reference 1250 (the “Wotan”) monoblocks, the Joule Rite of Passage OTL monoblocks, plus, just for the devil of it, a 50-watt stereo basic amp from Pilot, much revised, a vintage goldie-oldie, a knock-out, considering its antiquity and its ability to make the References sing, and mostly comfortably at that. The Nordost Valhalla interconnects and speaker cables remained a constant, as did the Clearaudio Reference table, outfitted with, at one point, two Clearaudio/Souther straight-line trackers (one with a Lyra Helikon) and, later, the updated Graham arm tube outfitted with the new Nightingale cartridge. We went through several iterations of the Hovland HP-100 preamplifier (the last an audibly superior improve-

ment to the original) and the old standby, the Conrad-Johnson ART II line stage, with The Groove phono stage. The digital gear was Burmester's 969 CD belt-drive unit and 970 24-bit digital-to-analog converter. And we did some experiments with the two-piece Accuphase SACD player, the D-100 and the DC-101. I list these components for a reason, to be disclosed in the second part of this serial, in an upcoming issue.

One aim of the Exotica Grand Reference was flat broadband frequency response.

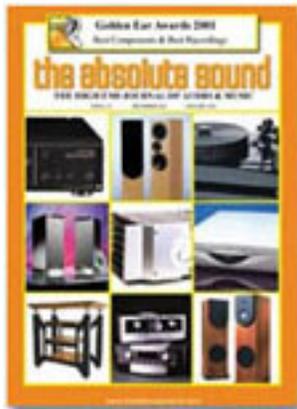
But Marchisotto had another kind of flat (or consistent, in this case) response in mind and that was in the domain of dynamics. That is to say, in the dynamic wave envelope. Audio components, measured the old-fashioned way, can have perfectly flat frequency response from hell up to heaven without being able to reproduce dynamics that are equal in weight throughout the frequency spectrum.

If you pay particular attention, listening to unamplified instruments (preferably a massive number, as in an orchestra) in a real space (preferably a concert hall, with a fairly neutral dynamic wave envelope – bad halls lack this kind of neutrality in dynamics), you will note that all the instruments have a dynamic equality, call it dynamic weight, such as you find on the best Mercury recordings, where no group of instruments is dynamically favored. (You can hear this same phenomenon in the new Reference Recordings CD of Rachmaninoff's *Symphonic Dances*, which earned, quite independently and on its own merits, three music Golden Ears in this issue.)

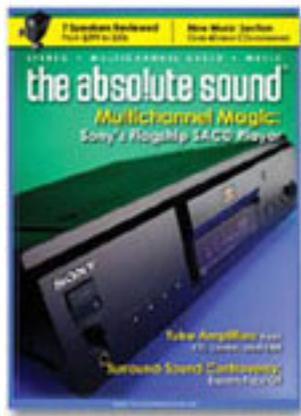
I have come to think that the most audible differences among contemporary components lies in their reproduction of the dynamic envelope. And this envelope must be viewed as entirely separate from the frequency-response domain. The frequency response of most, if not all, modern audio gear is laughably flat – laughable, meaning here that one would be astonished if the measurements said otherwise. But the reproduction of dynamics, from macro- to micro-, is anything but consistent with most audio gear. Keep in mind, as I illustrate this point, that in talking about dynamics, we are essentially talking about events occurring in time, the fourth dimension of our sonic soundstage. Electronics with high feedback often sounded “dark” (still do, too), though the response can extend out to 60 kHz. Why? Because there is no dynamic breathing room in the upper octaves. The dynamics will be more constricted there than anywhere else in the range, which means that dynamics happening below the highs sound the more prominent. I cannot think of any line stage or preamplifier that does not exhibit dynamic anomalies. The Hovland HP-100 has an explosive dynamic response in the deepest bass and a kind of a bulge in the upper mids, short, sharp and sweet, that foretells its character. The Conrad-Johnson ART II has lifelike dynamics from the mid-bass to the lower highs, but suffers dynamic constrictions at the frequency extremes (where there is flat frequency response, but what sounds like softness at the opposite ends of the spectrum). Speaker systems are far from flat when it comes to portraying the dynamic envelope as one experiences it in life. Electrostatics being among the worst offenders in this regard. Thus the question becomes: Has Marchisotto made some sort of breakthrough with the Exotica Grand in terms of dynamics, and if he has, then how does that affect the system's sound, and its playback of music, in the variety and wonder of its many faces? 

Part II of this review will appear in an upcoming issue.

* Which ought to have had a three-star rating in last issue's Editor's Choice, but I managed to overlook it during a rush to judgment.



from TAS 135



from TAS 134

III. The Exotica Grand Reference

It is a curiosity that Alón's hybrid speaker system, the Exotica Grand Reference, has a "character" distinctly its own and yet can also easily characterize the distinctive individuality of each of the components that precede it in the audio chain.

In making its individuating distinctions, the Grand Reference goes beyond any other "statement" speaker I have evaluated.

The Exotica does not excel in just one respect like, say, flat frequency response (which is, indeed, in its case, as wide and flat as anything now on the market), but equally in the way it responds to dynamic gradients within the octaves of the frequency scale, which it does without seeming to either constrict or overly emphasize any of the instruments of the orchestra. It

also has an uncanny ability to reconstruct an ambient sound-field, while resolving information, simple or complex, at the whisper of a *pianissimo* or during the thunder of a full musical crescendo. Nothing is lost.

The gestalt of individual components within a hybrid system usually becomes apparent to the listener whose orientation is based on familiarity with live music. In the case of the Exotica Grand, we have a series of true ribbon tweeters, operating in dipolar fashion, midrange and mid-bass units, in sealed enclosures, made of different materials though of moving-coil design. And to cap it, there are the necessary crossovers (for the speaker's front towers) to accommodate its three-way design. And yet these elements, and their crossovers, are so seamless in sound that they resound as one voice.

The Mount Sinai wisdom handed down nearly 30 years ago by Jon Dahlquist after his design work on the legendary DQ-10 was that many multi-way speaker system flaws could be forgiven if the individual drivers were made of similar materials. That alone, Dahlquist surmised, would lend a coherency to a system that made the system, musically, greater than the sum of its parts. As many of you may know, Carl Marchisotto, the founding father of Alón, worked for Dahlquist in the early Seventies (he even designed the DQLP-1 electronic/passive crossover system that separates the Alón's super woofer towers from the rest of the system). And here Marchisotto has advanced beyond his mentor by combining differing materials into an integrated and continuous coherency.

As I noted in the first part of this essay (see the Workshop, Issue 133 or on www.theabsolutesound.com), one of designer Carl Marchisotto's goals in the design of the Exotica Grand was to move the fundamental resonance point of every driver out of the audible range, in an effort to make the system as piston-like in operation as possible.

And just maybe the best evidence for his success at this (short of waterfall measurements) is the quite forgiving nature of the Grand, which never sounds harsh, bright, pinched. Just smooth and of a whole. The right word, and this may be the first time I've used the term to describe a speaker system, would be "continuousness," to describe its flow from top down to the lower reaches of the mid-bass. This isn't a speaker that will give you "high" definition, i.e., that overly etched, electronic sound that so mainlines it to the hi-fi freak. But then neither does it disguise *any* performance failing.

It has led me to conclude that, largely, the lack of resonant peaks and hollows from the individual drivers accounts for the glistening continuousness (always assuming the magician's touch in a system's internal crossover design), and this despite the forced conjunction of unlike elements.

Put more bluntly, these speakers reinforced a growing conviction that what most regard as "definition" and "accuracy" and "clarity" are no more than speaker element resonances (be they ever so humble) or inequalities of dynamics in quite specific, and sometimes narrow, portions of the range. With the Alóns, a kind of natural and musical transparency of definition is, as it is in the hall, remarkably easy on the ears, and both liquid and continuous.

I do not think, after many moons of listening, that Marchisotto has solved the problem of the bottom two octaves (from 40 Hertz down to its claimed 16). These speakers, four per side, each have an individual porthole, and it is my conviction (based on listening alone) that ported designs

always “decouple” the sound of a speaker from its original input.

In this case, although the bass towers go down quite low, if not to the advertised 16 Hz,* they do not do so with the articulation, definition and “feel” of shuddering air masses that huge low-note bass waves always generate. It goes low, it feels powerful, it has some “punch,” but the Exotica does not have that last word of “aliveness” and articulating ability that would enable one to, say, identify pedal points, either by note or frequency. Because there is, generally speaking, so little real musical information down yonder, and because the majority of orchestral instruments have their foundation in the two mid-bass octaves (which I define as starting at 40 Hertz), it may take some time before one becomes aware of this admittedly small lack of bottom-end coherency and realism, and for most practical purposes, it is not, as they say, a major sin. (It isn’t always, at first, obvious if you’ve forgotten to turn on the amplifier for the bass towers.)

While coherency and flat frequency response were, obviously, *sine qua non* design requirements for Marchisotto, his other purpose, as he notes, was to design a speaker system that did for dynamic response what others had been able to achieve with frequency response.

If you’re familiar with the sound of unamplified instruments playing in concert, you’ll know that the triangle shines through just as clearly as does the bass drum, and that the flute is as audible as a trombone—they seem to have a kind of equal dynamic weight even though their individual loudnesses may vary.** The ability to reproduce dynamics with that kind of weighting is, I believe, the chief failing of contemporary electronics (now that spatial, phase, and frequency problems have been, largely, tamed). In the first part of this essay, I cited some example of dynamic constrictions and resonant emphases that gave unwanted “character” to components throughout the audio chain.

To briefly reiterate: A dynamically constricted top octave will make for a dark-sounding component, as will a runaway bottom octave. (Obviously, this also depends on how the dynamic envelope is distributed throughout the rest of the range.) An expansive mid-bass will often lend a golden, Conrad-Johnson-like glow to the foundation of the orchestra, one that is particularly appealing and seemingly “right” for massed brass—the opposite, a slight dynamic constriction in the mid-bass may, like the Nordost SPM cables, give a lean, less than lush astringency to the lower strings.

Marchisotto, ever the restless experimenter, decided that he could best prove his point about the dynamic bandwidth of the Grands by bringing over his personally-modified version of the all-tubed Millennium preamplifier, a product, now discontinued, that was ahead of its time. So far ahead that it tended, dynamically, to overload the systems of its day and sound brash and sometimes hard. Yours truly never took a shine to it and, until now, did not understand the potential it had. But the dynamic envelope of the music it has, and if the other electron-



ics, cables, and speakers allow, it brings in a kind of realism many of us haven’t heard from a home music system. Of course, the unit had to be returned after a several-week listen, but in several ways, it wore on me, perhaps because of some audible intermodulation distortion—I thought it still sounded, almost residually, hard—or perhaps because it bulldozed its ways past some extremely subtle ambient cues. It did make me return to the Hovland HP-100, the Conrad-Johnson ART II, and the Burmester 808 Mk V with new insights into their performance.

As I was learning how, almost, to rehear the dynamic performance of individual components, two products arrived that showed me that I did not quite have the measure of the Exotica Grand. One of these was a prototype of a tubed preamplifier that I listened to, just for the curiosity, not the reportage. The other was an inexpensive 16/44 CD integrated player whose performance stood the goosebump hairs on end. Both components brought out aspects of the References that I had not been aware of—indeed, showed me that the speaker system, whose measure I had begun to think I was taking, was far more subtle (and accurate) in its depictions of reproduced sound than the other “statement” components I had been testing with it.

I have been forced to conclude that this speaker system is, in many ways, better than most of the components that feed it—or should we say, more advanced—and that I *still* have not yet got its measure.

To be continued. ■

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* It doesn’t on the EMI/Greensleeves recording of Saint-Saën’s *Organ Symphony*, which has a pedal point at that frequency in the Second Movement.
 ** If you listen to a Mercury recording, one of classic origin (that means from Wilma Cozart and her husband, Robert C. Fine), you can hear exactly what I am talking about.