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Vienna Acoustics "The Music" Loudspeaker

by Jim Hannon

Large, full-range, multi-driver loudspeaker systems can be thrilling and a lot of fun, yet in my experience, they frequently suffer from a lack of coherence between at least some of their drivers. My former Infinity Beta and RS1B speaker systems, with their separate woofer towers, generated plenty of goosebumps, yet their lack of coherence ultimately destroyed the illusion of a live performance for me. Modifications to the external crossovers, cabinets, and drivers helped, but not enough to keep me from parting with them. Indeed, getting woofers or subwoofers which plumb the depths to mate seamlessly with smaller quicker drivers is a major design challenge. Full-range electrostatics, as well as some highly regarded two-way dynamic systems, solve the coherence problem at the expense of bottom-end extension and weight, and most limit dynamic output. I've typically accepted these trade-offs and voted in favor of coherence over goosebumps.

However, as subwoofer advocates can attest, that bottom octave not only gives the performance a solid foundation and dynamic impact, but additional spatial cues which help soundstaging and musical realism. When I heard Vienna Acoustics' new "*The* Music" loudspeaker for the first time at CES 2008, I was mightily impressed that here was a full-range, multi-driver speaker system that provided plenty of goosebumps without sacrificing coherence, plus it also had an extraordinarily expansive and deep soundstage. Having lived with *The* Music for many months, and then again for several more after it returned from an appearance at a trade show, my appreciation for this brilliant loudspeaker has grown on many levels.

The Music occupies the uppermost rung in Vienna Acoustics' new Klimt Series of loudspeakers, named for the Viennese artist, Gustav Klimt. The connection between art and music is intentional, as *The* Music advances the art of loudspeaker design, while also being quite an artistic statement, in both physical appearance and performance, staying true to "the music" and, in many respects, preserving the illusion of attending a live concert. It is a beautifully finished speaker, with a relatively small footprint that does not dominate the listening or living room, but also breaks new ground for Vienna Acoustics, propelling the company with great velocity into the reference loudspeaker ranks. Its remarkable flat, concentric, Spider-Cone midrange driver with a coincident silk dome tweeter is a stunning technical achievement (see sidebar), providing *The* Music (and presumably other speakers in the Klimt Series) with an absolutely breathtaking soundstage and the core of a level of coherence difficult to match by any full-range, multi-driver system. *The* Music is thrilling, dynamic, eminently musical, and truly full-range, with deep-bass extension and weight, as well as highs that go out to the stratosphere.

In my experience, if a transducer can reproduce the human voice coherently over its entire range, from lyric soprano to bass, limitations elsewhere in the frequency spectrum can be more easily tolerated. Full-range electrostatic speakers from SoundLab, Quad, and MartinLogan pass this vocal coherence test with flying colors, and so does *The* Music—it is very close to "being of one cloth." What makes *The* Music different from most fine multi-driver systems is that voices come from a single point source in a phase-coherent time plane that is devoid of a crossover throughout this critical range. The Vienna Acoustics' flat, concentric midrange driver alone covers an amazing seven octaves of music, which closely approximates the bandwidth of the human voice. It is skillfully coupled with a handcrafted silk dome tweeter at its center that extends beyond 20kHz. This remarkable coincident planar midrange/tweeter array, housed in a separate, enclosed cabinet that Vienna Acoustics calls the "Music Center," is a major sonic breakthrough.

Indeed, these Vienna Acoustics speakers certainly have an engaging, almost irresistible way with both male and female voices. I love to listen to vocal recordings to test loudspeakers, because it's so easy to detect coherence problems and frequency anomalies. To help aid in this evaluation, I listened to several vocalists, including: Holly Cole on "I Can See Clearly Now," Peggy Lee on her signature tune "Fever" from *The Best of Peggy Lee* [Capitol], Mirella Freni on *French and Italian Opera* [EMI], Ella Fitzgerald on *Let No Man Write My*

Epitaph [Verve/Classic Records], Nick Drake's *Pink Moon* [Universal Japan], James Taylor on the recent *Sweet Baby James* reissue [Warner Bros.], as well as several operas including Verdi's *Aida* [Decca] and Puccini's *La Bohème* [London]. On each and every recording, I noted that the voices were precisely focused and continuous across their respective ranges, without any chestiness or bloat in the upper ranges of male vocals, or excess sibilance on female ones. Better still, voices had a musical realism and natural tonal balance that avoided being either too clinical or too warm. Mirella Freni's and Ella Fitzgerald's voices were "to die for," beautifully portrayed with no stridency even during wide dynamic swings, and both Holly Cole's and Peggy Lee's had an engaging openness, clarity, and sense of life. On the *Aida* recording, both male and female soloists were distinct while still being nicely integrated with the whole, and the layering of massed voices with the full orchestra was stunning.

Yet, making the most of its superb coincident midrange/tweeter array doesn't begin to tell this loudspeaker's whole story. Many promising hybrid designs have been undone by the mating of a 'stat or some exotic wide-bandwidth driver with dynamic woofers that just can't keep up with it, impinging on the purity of the midrange and/or changing the timbre of instruments as the sound moves from one type of driver to another. However, the transition from the deep bass to the midrange in *The* Music was also quite seamless—far better that I have been able to achieve over decades of trying to match subwoofers with either 'stats or mini-monitors. Paul Tortelier's cello on the Brahms Double Concerto [EMI/Testament], Ray Brown's string bass on *Ben Webster Meets Oscar Peterson* [Verve], and Joe Mondragon's bass fiddle on Peggy Lee's "Fever" were first-rate and eerily realistic, maintaining timbral coherence throughout their ranges (and in the Brahms from the highest notes of the violin to the lowest of the cello) with wonderful transient quickness. Indeed, the overall speed of its bass was matched by the amazing transient speed of *The* Music throughout its entire range, giving the speaker tremendous rhythmic drive and a sense of "aliveness." Reaching down even further, the low bass notes on Hans Zimmer's scores on the soundtrack recordings for *Black Hawk Down* and *Gladiator* [Decca], had weight, dynamic punch, and control, producing a spaciousness that was awe-inspiring, while also validating the speaker's rated 22Hz low-frequency extension.

Even more stunning than *The* Music's remarkable coherence was its enormous, focused, deep, and layered soundstage with well recorded source material like Miklós Rózsa's score to *Ben Hur* [Decca Phase Four], Gil Evans' *Out of the Blue* [Impulse/Alto], and Mozart's *Requiem* [Deutsche Grammophon/Speakers Corner]. Performers were precisely arrayed across the stage, giving the music a wonderful sense of spaciousness. Instruments like woodwinds floated in space and were stable as they descended the scale and moved back up again. Mass voices had an engaging layered depth that one experiences in a live performance and were literally wall-to-wall on the Rózsa. With *The* Music, I was able to "see" the entire stage, from left-to-right and front-to-back.

This level of soundstaging and imaging performance is what one would predict with a coincident driver array approximating a perfect point source, and *The* Music's soundstaging is as good as it gets from the plane of the speakers to the back wall. In contrast to many fine loudspeakers, the soundstage is not truncated at the back of the stage, nor is there a narrow sweet spot where only one person can experience this spectacular imaging. Like other top models featuring coincident driver arrays, most notably from TAD and KEF, *The* Music accommodates and encourages a broad range of listening positions, like a great concert hall. Soundstaging is even quite respectable while one is standing, which you're likely to do, as the rhythmic drive and snap of *The* Music often make listeners want to get up and dance.

Another outstanding sonic attribute of *The* Music was its ability to realistically reproduce the leading edge of transients. Rim-shots, cymbal crashes, strummed guitars, plucked stringed instruments, and double-and-triple tongued brass had lightning quickness without overhang. I felt as if some tympani strikes on power orchestral music might have knocked me down had I been standing and certainly

Vienna Acoustics' Revolutionary Driver—The Ideal Realized?

Imagine a dynamic loudspeaker employing a revolutionary flat midrange driver that covers the entire range of the human voice and works seamlessly with a handcrafted, coincident silk dome tweeter without producing any objectionable frequency anomalies. What you'd have is a time-accurate and phase-coherent point source covering the range where most music lives, resulting in a presentation with truth of timbre, an incredibly broad and deep soundstage, and an ultra-wide "sweet zone." It certainly sounds too good to be true, but Peter Gansterer and his team at Vienna Acoustics have achieved it with their Klimt Series loudspeakers, and the results are stunning!

Driver arrays that replace the dust cap of the midrange cone with a tweeter and align the centers of both units coincidently have been around for decades. Perhaps the best known is the Uni-Q tweeter/midrange array from KEF, now in its tenth generation, according to the KEF Web site. Two speakers utilizing coincident driver arrays, the KEF Model 207/2 and TAD Reference One, have been highly praised recently in these pages by AHC, and I have been impressed by their respective performances, along with that of the TAD Compact Reference One Monitor, at trade-shows. Along with Vienna Acoustics' Klimt series, these concentric-array speakers share a lot of compelling sonic attributes, most notably in projecting an expansive soundstage with subtle spatial cues across a wide listening area, in time alignment, in enhanced coherence, and in better matching of directivity, when compared to their more traditional, "separated" driver counterparts.

The heart of Vienna Acoustics' remarkable *The* Music loudspeaker is a patented 7" flat concentric midrange driver that is both an engineering and sonic breakthrough. This is not just marketing speak, but a major achievement, aided by advances in materials science and the skillful application of computerized Finite Element Analysis (a numerical modeling technique using calculus to obtain approximate solutions to vibration systems, and typically used to solve complex elasticity and structural-analysis problems). Combined with its first-order crossover, for greater phase coherency, this flat midrange with coincident tweeter is housed in a separate sealed enclosure, which not only helps to extend the midrange driver's range but completely decouples it from the bass cabinet to preserve clarity and natural musical timbre. Moreover, it can be swiveled both horizontally and vertically via an ingenious pivoting mechanism, allowing minute adjustments for both rake and toe-in. The ability to aim this top cabinet separately from its lower one, housing three nine-inch bass drivers and a Murata super-tweeter, gives *The* Music a lot of flexibility, helping to lock-in the soundstage and achieve better tonal balance and coherence.

While mounting a tweeter coincidently within the midrange driver produces numerous sonic benefits, it does present other design problems that need to be overcome. With the tweeter placed at the throat of the cone, time alignment suffers and horn loading results, which can produce "cupped-hands" highs or squawks. Another problem is that the addition of the tweeter to the midrange driver increases its overall mass, which can affect transient quickness. Over time, designers of coincident arrays have used lighter materials for both the midrange and tweeter drivers; they have also shortened the depth of the midrange cone and flattened its surround. However, unless the midrange driver is completely flat, phase distortion occurs, as the output of the cone pumps the highs unevenly at the listener, resulting in a somewhat ragged on-axis frequency response. While a crossover can correct the irregularities in frequency response, it also alters the character and natural launch of the sound, thus affecting the purity of the midrange.

So why haven't designers of coincident midrange/tweeter arrays just flattened out the midrange driver to eliminate these somewhat deleterious cone effects? The primary reason is that the conical shape of most conventional drivers provides the stiffness needed to generate sufficient output and frequency response; flat drivers are, by comparison, too soft and pliable. The cone also acts as a wave-guide for the coincident tweeter. However, Peter Gansterer saw the design challenges associated with a flat midrange "cone" as opportunities. Indeed, some would suggest that he has been evolving his reinforced-cone driver technology towards this goal since the introduction of his first Musi speaker in 1991. To stiffen its flat midrange driver, he used FEA to determine where to place its Spider-Cone web—essentially a lightweight net to reinforce the driver and increase its stiffness. He also employed Vienna Acoustics' proprietary X3P "self-quieting" driver material, which provides soft inner damping but adds glass fibers in the molding process, for even more rigidity without increased mass. Adding a "self-quieting" silk dome coincident tweeter ensured that acoustic energy would be effectively dissipated across the entire surface of the array.

Voilà, problems solved! Well, not so fast. Peter and his team spent several years honing at least five successive pre-production models trying to get everything right, even changing seemingly small related materials elements like glues to improve the sound. With such a sophisticated driver, there were also considerable production problems

that had to be solved, but eventually these were too overcome, and the flat midrange/tweeter array became a reality.

Because of the extended low-frequency response achieved with the flat midrange unit, Gansterer was able to use a relatively low crossover point (approximately 100Hz) between it and the three new 9" Spider-Cone woofers. Thus, he was also able to avoid a crossover throughout the entire practical range of the human voice. Like the flat midrange driver (*sans* some glass), these low mass, but incredibly stiff, bass drivers are composed of a similar, yet stronger, X3P material, and benefit from a similar lightweight reinforcing web, developed and positioned on the underside of the drivers using FEA. While all three woofers work in parallel, the first has its own chamber within the bass cabinet, and its primary job is to match the performance of the flat midrange driver. The other two woofers, which are ported out the back of the speaker, add bass weight and reach down below the 20Hz range.

This design approach—utilizing a wide bandwidth, flat midrange/coincident tweeter array, first-order crossovers, Spider-Cone technology, and very similar low-mass, self-quieting driver materials—helps give *The* Music its outstanding coherence, soundstaging, clarity, transient quickness, and timbral accuracy. Add to this a Murata super-tweeter, and *The* Music enjoys seemingly unlimited high-frequency extension and a more life-like presence. **JH**

provided plenty of goosebumps. On the Gill Evans recording, the three trombones had that initial "ping," "blat," and "spit" that made them feel as if they were in the room.

In addition to its reference-quality soundstaging and superb coherence and transient quickness, *The* Music delivered the sonic goods in many other areas. It extracted micro-fine layers of inner detail, like Martha Argerich's fingernails clicking on the ivories, Oscar Peterson talking to himself and singing along while playing, audience whispers on live recordings, and Xuefei Yang's finger movements on the neck of her classical guitar. Its ability to accurately replicate the natural timbre of instruments and voices was also uncanny. This Vienna Acoustics flagship was equally at home with all types of music, from small-scale, intimate works to power orchestral, big band jazz music, and electronica. It convincingly conveyed the weight, dynamic range, tonal balance and power of the piano, as well as its ability to seduce with a gorgeous singing tone.

The formidable strengths of this remarkable speaker were even more evident when compared to a live performance. During the review period, I had the considerable good fortune to be given tickets to the best seats in the house at a San Francisco Symphony performance of Mahler's Eighth Symphony conducted by Michael Tilson Thomas, arguably this country's greatest conductor today. I listened to the famous Solti Decca recording on *The* Music, both prior to and right after the concert, and subsequently using more powerful electronics in an even larger listening room. Whereas the live performance was a musical "peak experience," the speakers were able to replicate so many of the attributes of the live performance that I was shocked—most notably the natural timbre of instruments and voices, along with the

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width, depth, and height of the entire soundstage. *The* Music accurately reproduced the top end shimmer of the violins, along with their "feathery" delicacy and bite. It handled all the complex interactions among choruses, orchestra, and soloists without getting confused. The mallet strikes against the tympani were well preserved and nearly as thrilling as in life. The soprano soloist and the piccolo cut through the mass of performers in the recording, much as they did in the live performance. While the speakers could hardly be expected to move the amount of air these hundreds of voices and instruments generated during the live performance, particularly the pressure one feels against the breastbone on *fortissimos*, *The* Music conveyed the large dynamic swings of the *Symphony of a Thousand* (well, in this case, about 400) much better than I expected. In the larger listening room, with far beefier amplifiers, the gap between the recorded and live performance was closed still further, most notably improving the sense of scale, drama, and ease, as well as adding a cushion of air behind the massed strings. As in the live performance, the sound through *The* Music was big, bold, dynamic, and supremely musical, with plenty of goosebump moments, as when the sudden chime-strikes sent shivers down my spine.

Given its superlative performance across the board, it was difficult to find fault with *The* Music. This speaker was like a chameleon—minor flaws I thought were in *The* Music were ameliorated by changes in electronics, listening room, or recordings. Although it was quite revealing, and did not mask problems elsewhere in the system, *The* Music sounded marvelous with a wide variety of recordings, not just a treasured few. Admittedly, I was aware of more surface noise on some of my more well-worn analog recordings, but I also heard a lot more of what was buried deep in their groves. With its Murata super-tweeter, *The* Music has seemingly unlimited upper-end extension and air but also more lifelike presence. It is less warm than what

might be characterized as Vienna Acoustics' house sound, but its neutral tonal balance is more like the real thing. Lastly, while the speakers seemed to just disappear, I was occasionally reminded I was listening to a box enclosure.

A few caveats are also in order. With *The* Music's ingenious dual-pivoting mechanism for its top enclosure, you can really lock in the soundstage and achieve a neutral tonal balance. However, don't think you can plop this loudspeaker down where you've placed others in your listening room and extract all the performance this loudspeaker is capable of producing. A dealer trained in Sumiko's technique of loudspeaker placement, where the bass from the left speaker is optimized first, is invaluable here. In my listening room, the speakers were pulled farther forward and apart than what one would expect using the "rule of thirds." The top modules were pointed right at my ears, whereas the bottom cabinet, housing the woofers and Murata super-tweeter, were directed at my shoulders.

Also, don't judge these speakers until the flat midrange driver with its coincident soft dome tweeter has had considerable time to break in. Until then it will sound a bit too thin with a slight plastic coloration in the upper midrange, but given time to settle down, *The* Music begins to bloom. With its relatively high sensitivity (91dB) and 4-ohm impedance, the system can be powered to great effect by lower-powered amplifiers. I used the stellar 45-watt per channel Pathos Inpol2 integrated amplifier for most of my listening, and it was a wonderful match. Certainly, in a room larger than my 22' by 16' space, I'd go for more amplifier power. Driven by the Pass Labs X600 amplifiers in a big room, the speakers were really able to breathe, the soundstage was even more expansive, and the sense of scale and dynamic range increased.

The Music is priced in an increasingly competitive segment of the market, yet it also compares favorably with reference speakers costing far more. If you feel you should have to spend more on a reference speaker, I might suggest adding a REL Studio III subwoofer (with a cross-over point at 22Hz so you don't impinge on *The* Music's coherence) for even more concussive impact and a greater sense of the hall from the plane of the speakers to the listening position. Given how musically satisfying *The* Music is by itself, this might appear to be wretched excess, but the overall performance of this Vienna Acoustics/REL combo is even more amazing.

Vienna Acoustics' *The* Music loudspeaker system is aptly named, because it is so true to the music. With its extended, flat midrange driver with coincident tweeter, it pushes the performance envelope on multiple fronts. Here's a thrilling full-range loudspeaker of reference quality that supplies plenty of goosebumps, but also has 'stat-like coherence, superb time and phase accuracy, and breathtaking soundstaging. It is an accurate, yet musical speaker with fast transients, precise layered imaging, and articulate, extended bass. You may have noted that I frequently used the phrase, "just like in a live performance," when describing the sonic prowess of this Vienna Acoustics flagship loudspeaker. And that's just it. *The* Music compares surprisingly well to a live performance, and that's very high praise. **TAS**

SPECS & PRICING

Type: **3-way loudspeaker system employing integrated sub-woofers plus super-tweeter**
Frequency Response: **22Hz–100kHz**
Sensitivity: **91 dB**
Impedance: **4 ohms**
Power Requirement: **50W minimum, 500W maximum**
Driver Complement: **One midrange/treble coincident driver (7" Vienna Acoustic Flat-Spider-Cone with 1" vented neodymium-magnet silk dome); one Murata 0.5" super-tweeter; three 9" Vienna Acoustics spider-cone bass drivers**
Dimensions: **10.75" x 50.98" x 24.80"**
Weight: **180 lbs. each**
Price: **$27,000**

IMPORTER INFORMATION
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ASSOCIATED EQUIPMENT
Clearaudio Anniversary turntable with Helius Ruby tonearm and Benz Ebony H cartridge; Pro-Ject Perspex with Sumiko Celebration II cartridge; ARC PH7 phonostage and REF 3 preamplifier; MFA Venusian preamp (Frankland modified); Pathos INPOL2 and PrimaLuna DiaLogue Two integrated amplifiers; Pass Labs X600 amplifiers; Pathos Endorphin CD player; REL Studio III subwoofer; Nordost Valhalla, Audioquest King Cobra, Virtual Dynamics and Goertz cables; etc.