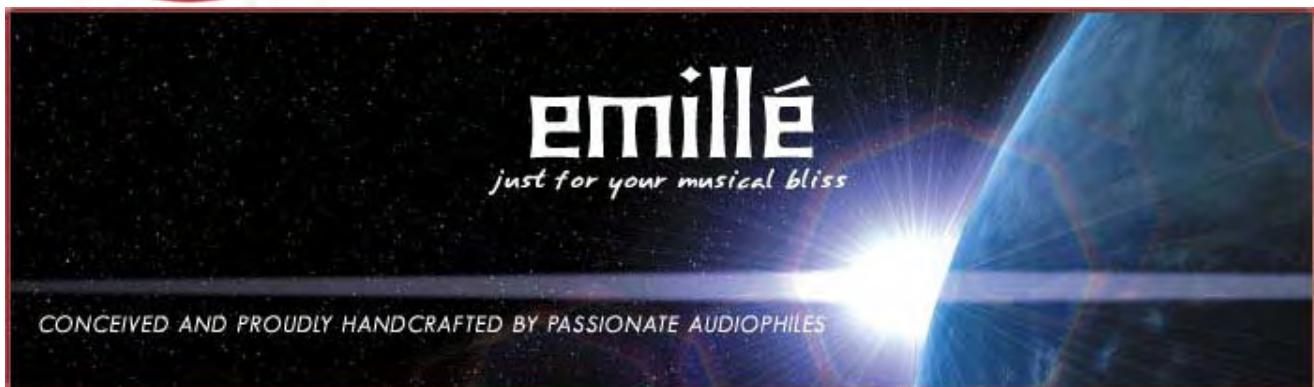
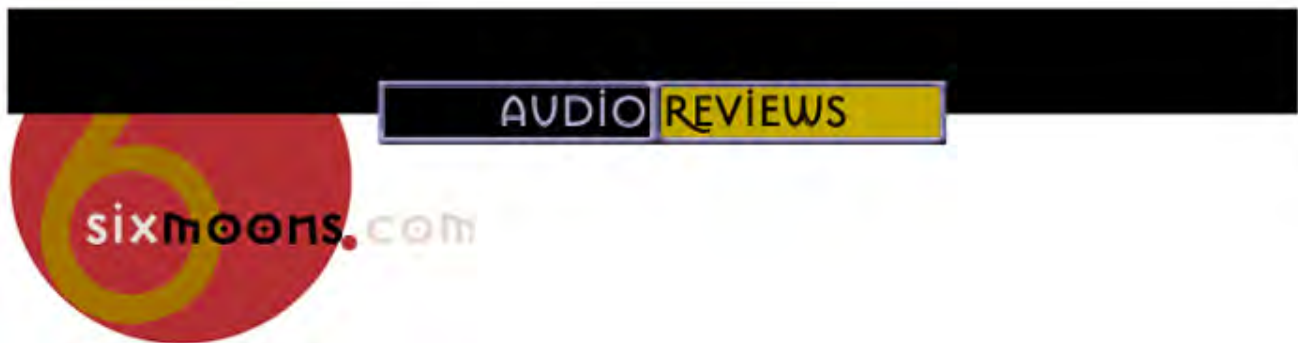


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SEPTEMBER 2010



AMPEGGIO

Reviewer: Srajan Ebaen

Financial Interests: click [here](#)

Source: 1TB iMac (AIFF) via FireWire into Weiss DAC2

Preamplifier: Esoteric C-03

Amplifier: FirstWatt F5, J2 and M2 [on review], Trafomatic Audio Kaivalya monos, Yamamoto A-09S

Loudspeakers: ASI Tango R, Zu Essence

Cables: ASI Liveline

Stands: 2 x ASI HeartSong 3-tier, 2 x ASI HeartSong amp stand

Powerline conditioning: 1 x Walker Audio Velocitor S, 1 x Furutech RTP6

Sundry accessories: Furutech RD-2 CD demagnetizer; Nanotech Nespa Pro; extensive use of Acoustic System Resonators, noise filters and phase inverters, Advanced Acoustics Orbis Wall & Corner units

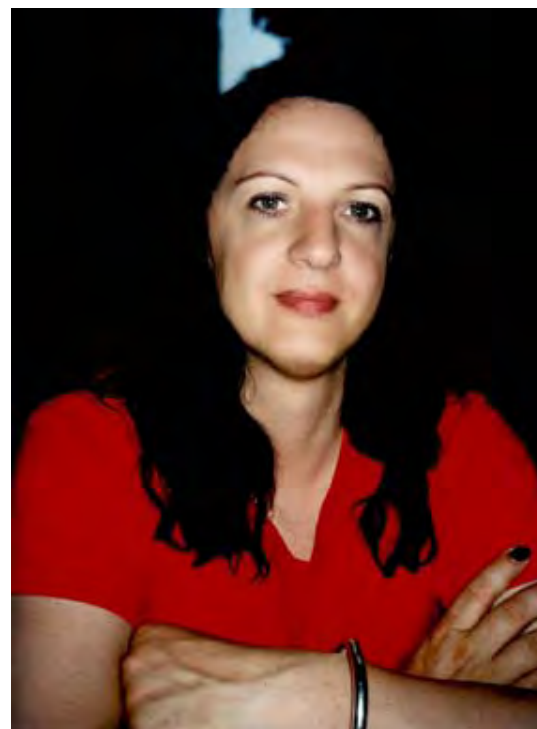
Room size: The sound platform is 3 x 4.5m with a 2-story slanted ceiling above; four steps below continue into an 8m long combined open kitchen, dining room and office, an area which widens to 5.2m with a 2.8m ceiling; the sound platform space is open to a 2nd story landing and, via spiral stair case, to a 3rd-floor studio; concrete floor, concrete and brick walls from a converted barn with no parallel walls nor perfect right angles; short-wall setup with speaker backs facing the 8-meter expanse and 2nd-story landing.

Review Component Retail: €16.900/pr (excl. VAT)



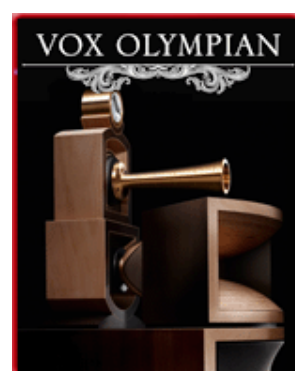
Loudspeaker firm Voxativ of Berlin is unusual. It's fronted by Inès Adler, a woman and accredited engineer*. That's exceedingly rare in our male-dominant sector. Next, certain of her speakers are crafted by **Schimmel**, a specialty German piano builder. Again there are only few precedents. For musical instrument builders turned loudspeaker makers, only Bösendorfer speakers, the Steinway project with Peter Lyngdorf and the Takamine collaborations with Onkyo and Kiso Acoustics come to mind. But there's more. Inès outfits her widebender speakers with her very own drive units.

"With respect to the old Voigt, Jensen and Klangfilm drivers, this type of transducer has now been revived with new technology and materials. Our suspensions are made from genuine goat leather to save a lot of motional cone energy which suddenly becomes available for music reproduction. The result is incredible detail resolution. Our top AC-X is driven by a large field coil instead of permanent magnet. With this magnetic force, the driver reaches maximum dynamic performance. Its housing is made from carbon-free steel and additional Permendur plates. The AC-X has a Qts between 0.25 and 0.6 contingent on the supply voltage which can be set from 6 to 18 volts. That enables the user to adjust the driver to all installation conditions and playback requirements.





* Initially just as a hobby, Inès Adler began experimenting with widebanders in the 1980s. After she finished her engineering studies with a master's degree, she went to work for Daimler's Mercedes Benz diesel section where she developed engine electronics, ECUs and software. She holds 14 patents on diesel combustion, injection and exhaust treatments. In the late 90s Inès wanted to optimize her widebanders and began a second round of many experiments which netted promising results. To properly distinguish her Voxativ drivers from all precursors like Lowther, AER, Stamm and Loth-X, she designs and fabricates each component part from scratch.



"Back to the AC-X and different to the designs of the 1940s or current DIY projects, its field coil is completely shielded to avoid field radiation and increase performance. The reduction in supply voltage of the approximately 100V in vintage designs to now 12V and a maximum of 18V has the AC-X conform to all modern security and energy conservation issues. Enclosure



Ampeggio with black goat leather surround

options include full-range mode in a back-loaded horn for bass radiation to 25Hz; open baffle (plans are delivered with the driver); and as 2-way freely radiating driver with dipole woofers or loaded into a front horn."

The specifications for that particular** Voxativ follow. Bandwidth of 20Hz - 20kHz. Max sensitivity of 108dB. 50-watt nominal power handling. Impedance R 10.7 Ω . Complex impedance Z 16 Ω . Resonant frequency 29.12Hz. Qms 3.1/12V. Qes 0.4/12V. Qts 0.354/12V. VAS 148 ltr. Xmas 8mm. Depth 166mm. Installation diameter 190mm. Weight 12kg. For context, Lowther's EX and DX Series drivers have an Xmas of 1mm and a weight of 3 - 4kg. Lowther's big PM-4 has a free-air resonance of 70Hz as do most Lowthers. The math becomes predictive. The Voxativ unit should be unusually broad of bandwidth and output.

What Inès suggested for review was her Voxativ Ampeggio speaker which she'd shown at the Munich High-End show earlier this year together with Schimmel Pianos (intro image).

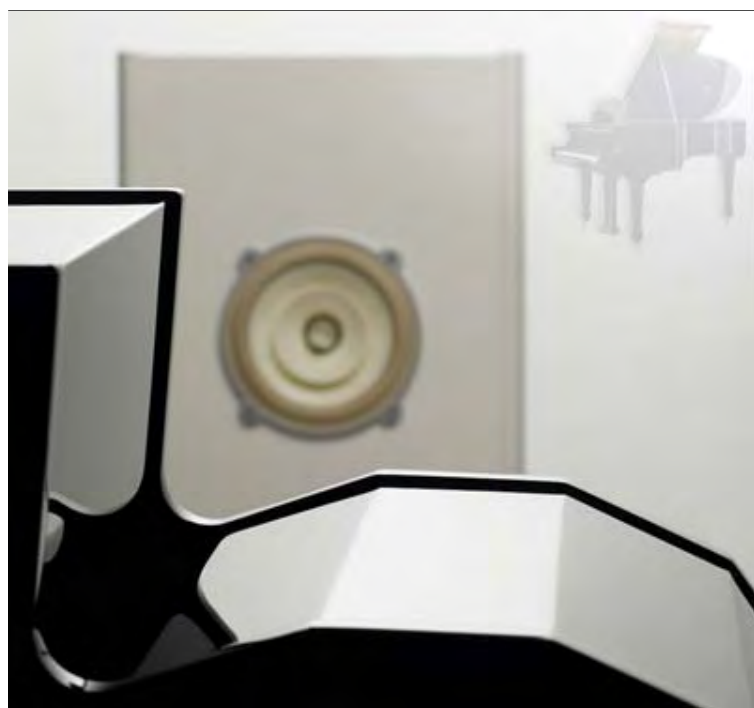
**** The AC-X [€4.620/pr excl. VAT] comes standard with an SMPS. A transformer-based power supply adds €415, a battery power supply €2.269. In each case, the supply is fixed at 12V. The Voxativ driver range begins with the AC-1 at €1,099/pr excl. VAT and tops out with the AC-X. The AC-3X as second from the top is tuned especially for the Ampeggio model. It costs €3.696/pr excl. VAT. Compared to the company's AC-3B unit which has a moving mass of 6 grams and a magnetic force of 2.1 Tesla, the AC-3X reduces moving mass to 5.5 grams and increases magnet power to 2.3 Tesla."**



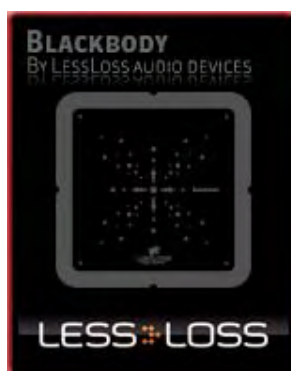
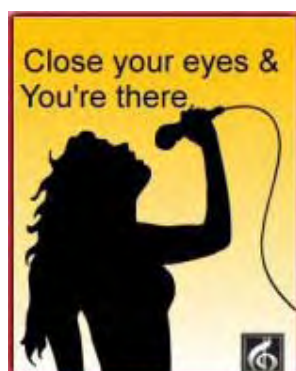
The Ampeggio's driver really is the Neodymium version of the AC-X and loaded into a back-horn enclosure which is made from tone wood with facettted turns to precisely control internal reflections and resonances. This enclosure is then covered in 1mm deep polyurethane paint that's been polished about 10 times. The Voxativ by Schimmel Piano logo is made from brass and inlaid into the paint. Hookup wiring is solid-core copper, the solid-copper binding posts are Mundorf issue. "The system's efficiency is 98dB to pose no problems for small luxury amps like Yamamoto." The Ampeggio measures 40 x 110 x 35cm WxHxD and weighs 55kg. Finish options for the Schimmel version are piano gloss black and white, otherwise gray or Cherry veneer. Frequency response is a claimed 38Hz to 20kHz for realistic bandwidth at least on paper.



Tan goat leather suspension is impregnated with silicon compound to never dry out and be impervious to rot unlike foam surrounds.



"For us the partnership with Schimmel Pianos is very fortuitous. After all, they have 125 years of not just world-class woodworking experience but first-hand constant exposure to live sound. That puts them above most consumers and hifi manufacturers and on equal footing with perhaps only recording industry professionals. Their CEO Mr. Schimmel-Vogel is a very nice gentleman who was looking to partner with a speaker company. He chose Voxativ because the sound of our speakers was closer to that of a live piano than he'd ever heard before - anywhere. Further collaborations with Schimmel are planned of course and our full branding for the Ampeggio project is *Voxativ by Schimmel Pianos*. This properly identifies their cabinet fabrication contribution including their state-of-the-art lacquer finish. The Ampeggio driver uses a N56H Neodymium motor with double-sided copper voice coil, Kapton former, a die-cast aluminum basket and a pure calligraphy paper diaphragm that's been coated with four layers of lacquer proprietary to us. Not *one* part of this driver is shared with anyone else."



No matter their cost, the small print beneath unassisted widebanders states that they beam as the main driver veers into higher frequencies; are prone to intermodulation distortion since the same driver handles low bass, midrange and treble (whether that's practically audible is another matter); suffer limited bass dynamics because diameter and stroke can't be optimized for LF; tend to suffer a presence region lift and other response irregularities; usually aren't as treble extended as dedicated tiny tweeters; and when of high efficiency, use very light thin cones which further undermine high-output low bass.



On the bonus ledger, there are no energy-robbing passive crossovers with their phase shifts and time-domain problems; no multi-driver integration issues; high soundstage precision from point-source radiation; and particularly with high-sensitivity variants, good nuance retrieval at even low playback levels and the ability to be run with low-power purist amps. When such widebanders increase in cost as does the Ampeggio, the onus on serious dominance—of plus over minus—becomes potent. That's particularly so once we consider (and compare against) a multi-driver design like my closely priced ASI Tango R. On the face of it, could one driver even *hope* to compete against five, three of which are dedicated to bass alone? Those subscribed to the ongoing allure of the breed naturally believe that yes, *it can*. Those with a more realistic attitude would add, *where it most matters*.





The paper diaphragm is sealed with 4 coats of lacquer on each side to prevent moisture absorption and rot in any climate.

This review will answer what *most* in this context means. And whether, for once in this sector, it even has to be a qualifier as it most certainly does with Lowther and Feastrex. With Inès delivering to ascertain that my space and ancillaries were up to snuff before leaving a loaner pair in Casa Chardonne, we jointly agreed. My Trafomatic Audio Kaivalya monos were the absolutely perfect match followed by FirstWatt's M2. The Yamamoto A-09S wasn't quite dynamic and controlled enough, the F5 too lit up and tonally a tad lean. The J2 was better but on transistors, the M2 took the cake. The EL84s then added tone density and *elegance*.

Once toed in at the recommended 18°, Inès pronounced the performance in my room superior to what she gets in her own 300m² space - except that she called my lack of front-wall reinforcement audible in the Ampeggio's bottom octave weight. No surprise there.

What was shocking is that I *still* had solid snappy bass to 40Hz despite this unconventional and basically counter-productive placement. Most commercial Feastrex, Lowther, Jordan and Fostex offerings I know would kill for such extension run solo under these conditions. While PHY surely has it, their big driver doesn't make it past 10kHz to enforce a separate tweeter. The Voxativ AC-3X clearly required no auxiliary tweeter or woofer. Had I finally encountered a driver which truly lived up to its billing as *widebender* or *fullranger*?

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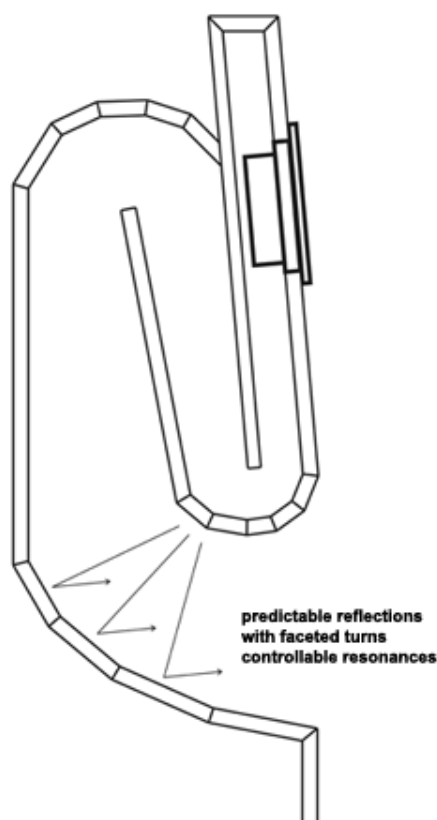
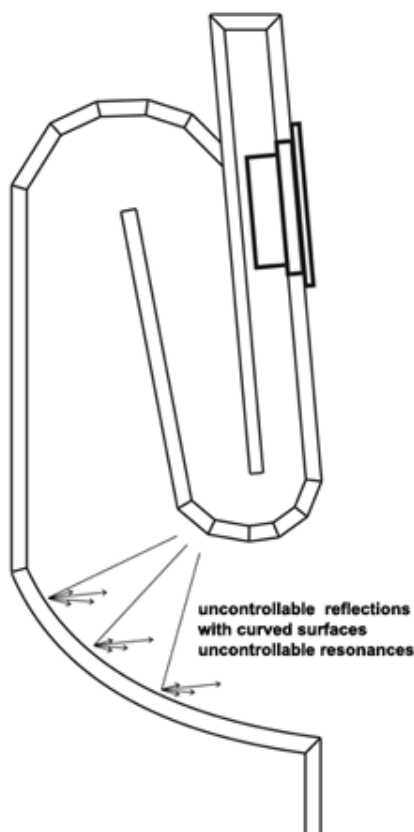
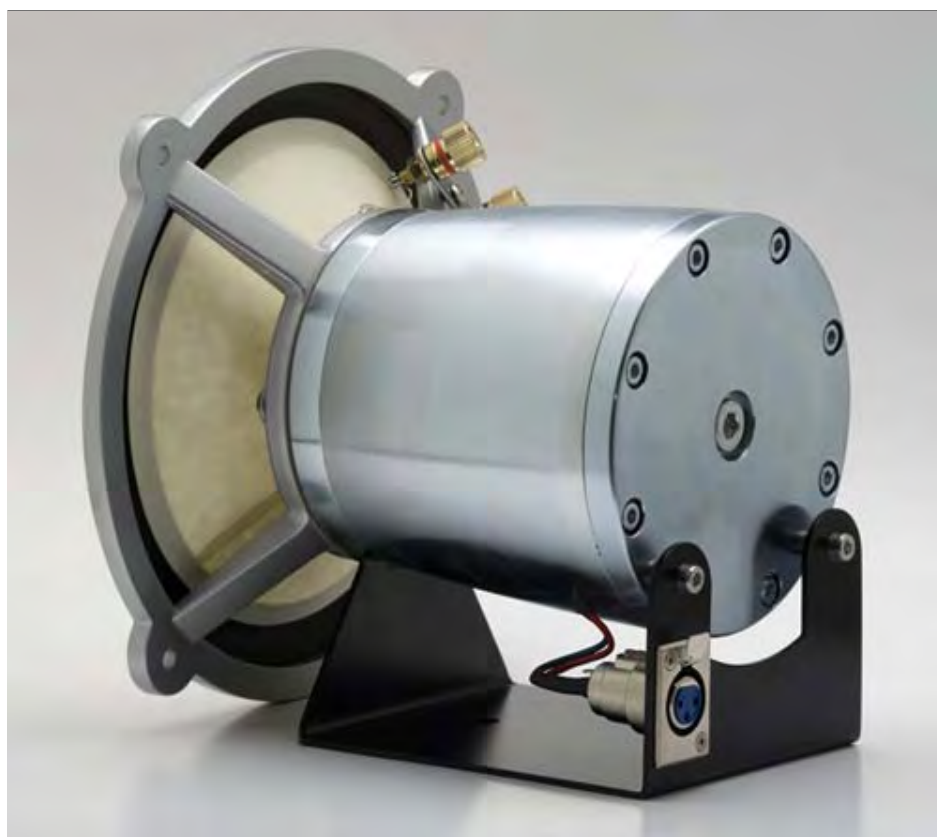
The Voxativ Ampeggio is a *complete* speaker. In this category and beyond the already stated reasons, that's not exactly common. Consider Feastrex for example. Their US importer's Granada speaker runs a digital crossover to augment the widebender with dual 15-inch woofers. Do you see much justification in an exorbitantly priced 'full-range' driver that requires augmentation to make proper bass? Next look at the enclosure Feastrex publishes for their 5-incher. It's a poor ported joke.

Now extend your search for wideband driver manufacturers who manufacture their own properly *matched* fully optimized non-DIY enclosures. You'll come up short. Jacob George of Rethm for one must deal with inherently limited drive units not of his own manufacture, then devise complex enclosures to minimize transducer compromises (*and* modify the actual drivers). After 10 long years, Jacob finally gave up on operating Lowthers full range. He now mates them to active bass systems instead. To purists, this defeats the whole concept. What makers of full-range drivers actually design their own advanced speaker cabinets as a cohesive whole *with* their drivers?

Lowther has a new range. There's Tommy Wu of JohnBlue Audio Art from Taiwan; Louis Chochos of Omega Loudspeakers - and Voxativ. This is rarer than it ought to be.

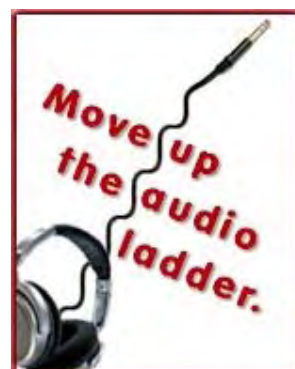
Single-driver speakers rely on their cabinets to linearize the response. There's no crossover to contour with. There's no electrical notch filter to trim presence region peakiness. Driver and enclosure must work as one without the assist of a filter network. To reiterate then, the Ampeggio's driver was designed and tuned especially for the Ampeggio cabinet - by the very same designer.

[At right, the field-coil version of the Ampeggio driver uses the same cone, voice coil, suspension and basket.]



"This is a properly engineered widebender. Do not stick it on an open baffle or in a ported box and expect optimal performance. To obtain Ampeggio's intended bass response *depends* absolutely on a carefully orchestrated enclosure. "

Asked about her driver's spectacular bandwidth, Inès explained that "increasing the magnetic field strength decreases the QTS Thiele Small parameters. The optimal QTS for a woofer (contingent also on its enclosure) is about 0.3. When QTS shrinks, bass becomes cleaner but amplitude reduces. If QTS increases because magnetic field strength diminishes, bass becomes huge but definition suffers. All this is standard MO for woofers. A fullrange driver works well with a QTS of 0.56 like the AC-3X.



"If the matching enclosure is properly designed, bass will be fine and lowering the QTS by driving up magnetic field strength in the voice coil gap will actually cause bass loss. Lowther's PM4 for example has a QTS of 0.227 and a resonant frequency of 70Hz (the AC-3X's is 33Hz). With that good bass is not possible but theoretically the highs are fine. The Lowther's frequency range is tilted at around 1000Hz. Other parameters influencing QTS are moving mass and suspension stiffness. Increase stiffness or moving mass and the QTS goes up. In the end, it's most important to fine-tune all of these parameters against each other to get the values you want. One starts with calculations but the rest is prototyping - endless prototyping."

The upshot is that the hunt for extreme sensitivity—without hornloading just as a function of the raw driver—eventually turns against bass extension. The AC-3X's core geometry and materials allow for a higher rating in fact than the actual 98dB specification of this speaker model. Inès strategically shaved off a few efficiency points by stiffening the suspension to optimize low bass. Excursion capability is $\pm 8\text{mm}$ (Lowther's is $\pm 1\text{mm}$).

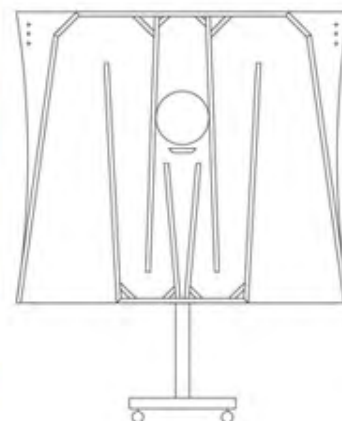
In this genre of drivers, Alnico—a contraction of aluminum, nickel and cobalt—enjoys a near mythical reputation. Because Voxativ uses an Alnico motor in one of their drivers but not the top offerings, I asked why. "I have repaired and rebuilt thousands of drive units over the last ten years. I always insert a special probe in their voice coils to measure remaining field strength in the gap. With Alnico it's invariably *well* below the original specification. Alnico only maintains magnetization wedged between steel plates. Fixing an Alnico core such that it cannot slip by impacts in transit or over time by even 0.1mm is critical. Otherwise field strength is seriously compromised. At the physical magnet sizes required for 2+ Gauss motors, this gets more challenging than one might think.

"In the AC-2a we have one Alnico driver because that's what some of our customers prefer. For our top drivers with max sensitivity however, the far higher and *constant* magnet strength of Neodymium allows for a motor size and weight reduction over Alnico without any sonic losses. With costly high-performance drivers, long-term performance invariability is key. This made Neodymium motors our choice."

Field coils too enjoy a mythical regard. "While I personally hear no advantages with Alnico, field coils are different. I simply cannot explain why. Our AC-X is my top driver and a field coil for a reason. Its sonic performance is superior to the AC-3X without altering any other parameters like the voice coil, diaphragm or suspension.



"You'll hear this for yourself once we release our pending top Wall Horn with a special version of the AC-X. About the Voxativ name, it combines the Latin vox for voice with another Latin term for future. It thus becomes *Voice of the Future*. The tag line *for active listening* which a clever advertising agency spun off is a nice secondary meaning derived from it."



Prototype Wall Horn with claimed 25Hz response

A distinctive Voxativ feature is directly related to price - the upscale *audio furniture* concept. The Ampeggio is a luxury piece of furniture dedicated to the audio arts. In a sector dominated by DIY, it sets Inès Adler's creation apart. Anyone commenting on this package cannot do so without acknowledging the build quality aspect. Or the extent to which the Schimmel collaboration has pushed the finish. Someone who considers a piano a fine furniture heirloom is bound to extend the same regard to Voxativ's Ampeggio. Those who couldn't give a shit—man cave dwellers to whom only sonics matter—would never consider allocating such a *high* percentage of a speaker's purchase price on finish no matter how perfect. For them the Ampeggio by design is off the reservation.



Actually, Schimmel Piano builds the entire Ampeggio speaker in their famous Braunschweig facilities. Voxativ simply dispatches hand-crafted drive units from Berlin. Order fulfillment happens through and from Braunschweig. Should we assume that a firmly established piano builder's wood craft—Schimmel is one of the few such firms remaining who offer a complete 9.5-year Master's degree—transcends the average plant pumping out doors, window frames and kitchen cabinets aside from the occasional time slots reserved for low-volume MDF speaker cabs?



Clearly the Voxativ is an expensive speaker. But there's a direct correlation with where the money went. You could argue that 13-skin lacquers and select tone woods applied by German perfectionists aren't how you wish to get invested. Fair enough. You simply cannot argue with the reality of the expense or the standard of implementation.



To summarize introductions: Voxativ is a 3-year old firm with longer roots and an accredited woman engineer in charge. The company isn't just about statement drive units. It's about statement speakers which happen to use a single driver - their own. While Voxativ drive units are available to DIYers, raw parts cost should mostly prohibit their actual use in such projects. Building ambitious drive units with little market representation—and then in not necessarily optimized implementations which would reflect poorly on the firm—is counter productive. Hoping for eventual OEM business hasn't gotten PHY's Bernard Salabert widespread exposure. His drive units to this day are used by only four very small loudspeaker companies. Seas' exotic driver range has very different resources behind it yet not even the Norwegians have launched their own line of Seas speakers to show off their widebanders as proof of concept.



Relative newcomer Voxativ now hits this scene in a very clever alliance with Schimmel Piano. Their joint project handles driver design, driver realization, in-house control *and* final implementation in an expertly crafted turnkey loudspeaker all in one fell swoop. That's daring and ambitious. It matters little of course if it ain't got that swing.





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It does swing. Right now consider the clues I planted earlier. Like in a whodunit, they already put our suspect in the frame. If you followed my FirstWatt writeups, you know that of their regular voltage source designs, the F5 is the most crystallized, lit-up and coolest. It's the champion of DC-coupled wide bandwidth reflexes. The M2 introduces deliberate 'Mosfet mist' plus transformer voltage gain. That mellows transients and fleshes out midband and treble a bit. Having called the M2 a better match should have identified the Ampeggio's core character as very fast and texturally lean. It thus benefits from a strategic but *small* tone density injection. The F5 in turn over-emphasized transient incisiveness. This very linear low-distortion amplifier confirmed that in the critical presence region, the very well-behaved Ampeggio was probably still up a gently contoured 2dB. (Limited midband information does exit the horn mouth. This was deemed superior over installing line-damping material for passing only the low frequencies as any kind of fill "killed the sound".) The presence region is excitingly direct without wanting a cruel flash light on it. There's *no* inherent shoutiness over a narrow peaky range, just a well-integrated small reminder that widebanders do typically emphasize this band to some extent.



Voxativ at the Taipei Hi-End Show 2010 - coverage [here](#)

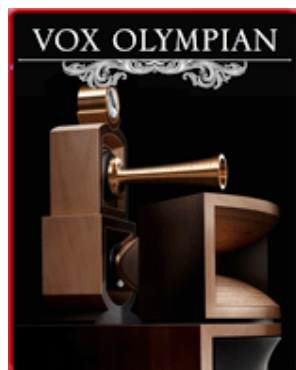
Having called the Yamamoto 300B SET less ideal suggested a few things. Ampeggio's resolution, timing precision and overall lucidity are too high to tolerate coalescent 2nd-order THD effects. And, this speaker is not lean enough to require that level of enhancement. With the designer and yours truly favoring my IT-coupled EL84 monos over the M2 as a very close second, a carefully *controlled* injection of tube textures with high linearity and wide bandwidth seemed like the golden ticket. This doesn't eliminate transistors but demands very high sophistication if you want to play in the sand. FirstWatt's F3, J2 and M2 seem ideal.

This speaker [at right in pre-Schimmel veneer] proved *superbly* transparent to tube rolling. Over the A-09S, it clearly telegraphed the increased treble energy of the Synergy Hifi valves; the gentler flair, softer bass and deeper colors of the TJ SE; and the higher damping of the EAT and EML XLR. From my amp options, it simply turned out that the lower THD, higher bandwidth and greater linearity of the Russian military 6P14P-EV in push/pull class A with two local NFB loops—0.3dB between driver and output tubes through the interstage transformer, 4dB between output tubes and output transformer—held the ace of transistor and tube virtues.

From the above, you should be able to triangulate with a high-efficiency speaker house whose products I've reviewed extensively. The Zu house sound is meaty, dynamically feisty and boisterous, overall dark and not that detailed. In the FirstWatt catalogue, I'd mate Zu with the F5 or F1 for best bass control, reflexes and top-end extension. By comparison, the lighter more resolved Voxativ is far closer to the Lowther aesthetic, albeit with four key differences: no shout; superior dynamics; smoother treble; and real bass. Call it a Lowther sound without the usual compromises. That profiling gets you into the ball park.



If not augmented by woofers, Lowthers tend to be back-horn loaded for the obvious nether reasons. Back horns that are ambitious about bass extension grow quite sizable then. Outside decor considerations, big rear horns often also entail drag. Focus is somewhat amorphous and bass always lags behind the beat. *Unlike* most back-loaded horns, Ampeggio's bass is very much on time. Plus, it's texturally taut rather than loose. On a whole that's arguably the greatest progress Voxativ contributes to the single-driver genre. It explains why this speaker really does have that swing.

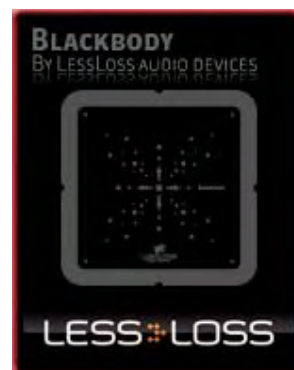


Needless to say, the cone area of the AC-3X couldn't displace the kind of air the triple 8-inchers in my reference speakers do. While bass extension, agility and definition were class-leading for this breed, body-slam viscerality of big drums or Victor Wooten/Marcus Miller-type slap bass didn't match the violence of dedicated paralleled woofers. Nor power at 25Hz. That's obvious. By the same token, the Ampeggio's bass really *was* on the money - arguably more so than many conventional speakers whose phase shifts in the low end undermine their beat fidelity.



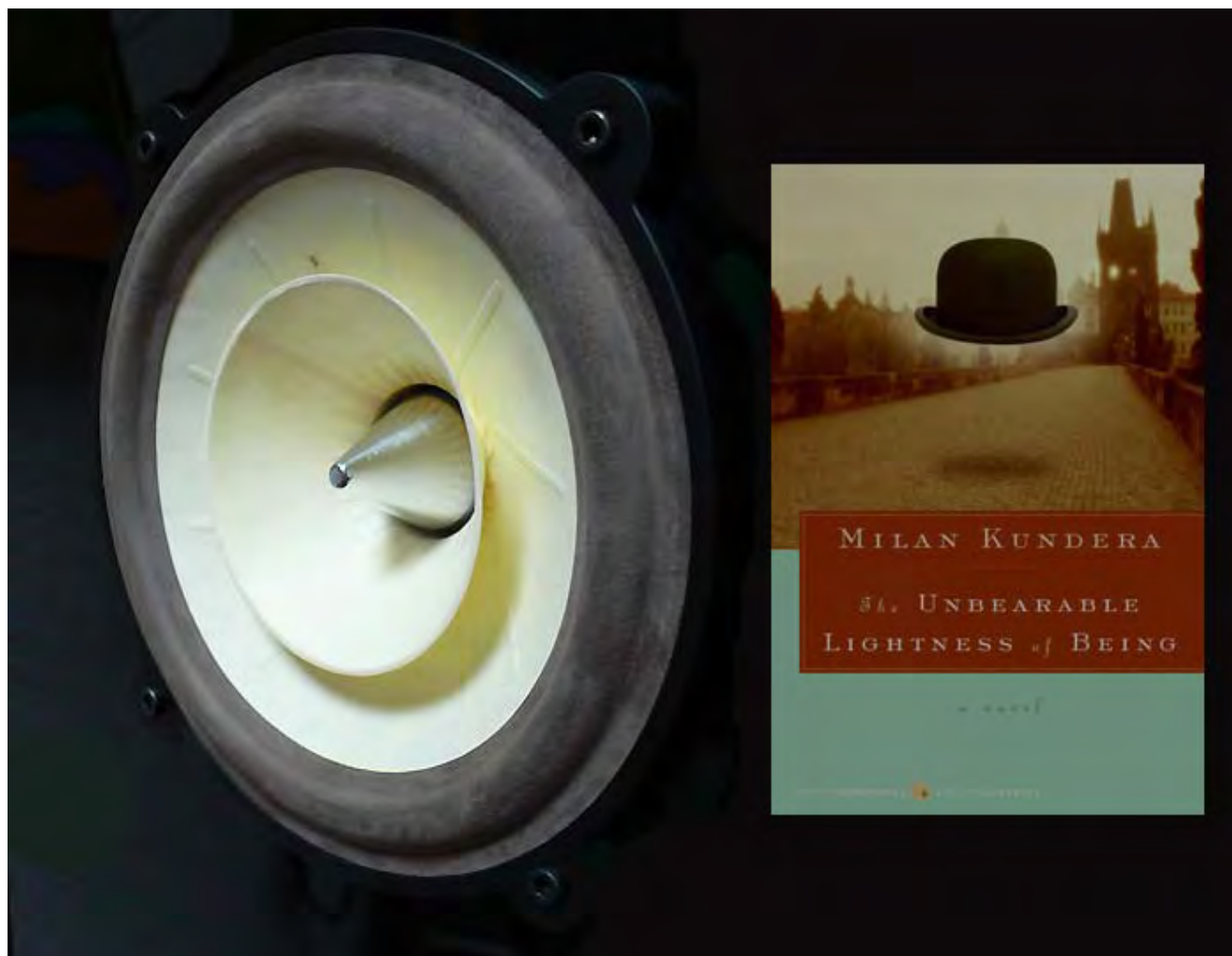
The Ampeggio's top end was *nearly* the equal of my resonator-enhanced Dynaudio Esotar clone in the ASI Tango R. One of my telltale tests is "Promenade" from Vassili Tsabropolous' *Melos* [ECM]. Very well recorded, its struck triangles flare up like flashing beacons in the dark. Only the best treble systems will track their decays to the end. While Franck Tchchang's speaker had more of the very highest Platinum overtones, the old-fashioned whizzer cone let the tones ring out just as long, the initial rise of struck metal flare up just as sharply. This was unexpected to put it mildly.

Granted, I'm no longer a bat-eared youngster. My hearing probably cuts out between 16 and 17kHz. While a 20-something might judge the Ampeggio's stratosphere different, chances are that type of listener wouldn't allocate 16G on a speaker with a single driver. For those sufficiently liquid who'd be drawn to this esoteric concept in the first place because they've tired of more conventional solutions... to such customers, Voxativ's treble is very much *complete*.





Even so, all this leaves us with one very *big* question. Attempting to answer it means that we first have to define certain very specific but arguably 'esoteric' performance parameters. The question is whether Ampeggio's performance could be duplicated by more conventional and/or cheaper means which would throw into the bargain more 40 - 80Hz *displacement* and likely get one closer to 20Hz. On actual performance, is the single-driver concept justifiable and more advantageous than a minimum-phase full-range speaker of Franck Tchang caliber or the far cheaper Anthony Gallo Reference 3.5 for example?



Is there something unique to the Voxativ that can't be had elsewhere? If so, is it fundamental enough to silence other considerations? To state it unmistakably, Voxativ's Ampeggio is the first widebender in my acquaintance to even beg that question in its fullness. Nothing else in this category previously had been this free of compromise to become an *unconditionally* valid counter option. Zu lacks upper-band resolution to play in these leagues (and by definition theirs aren't pure single-driver designs). Solo Lowthers by Rethm had special virtues which were overshadowed by obvious shortcomings in the overall balance. The top PHY 12-incher absolutely needs one if not two auxiliary tweeters. And so on. Audiophiles with sufficient experience and honesty would admit that for a single-driver speaker to even *get* to this place—and quite regardless of how one might ultimately answer 'the big question'—is a huge accomplishment. It's a massive accolade. With the Ampeggio, Inès Adler demonstrates how a single driver can really do it all. Beyond exotic appeal however, why would one go after her speaker over a first-rate conventional option? What are the special benefits?



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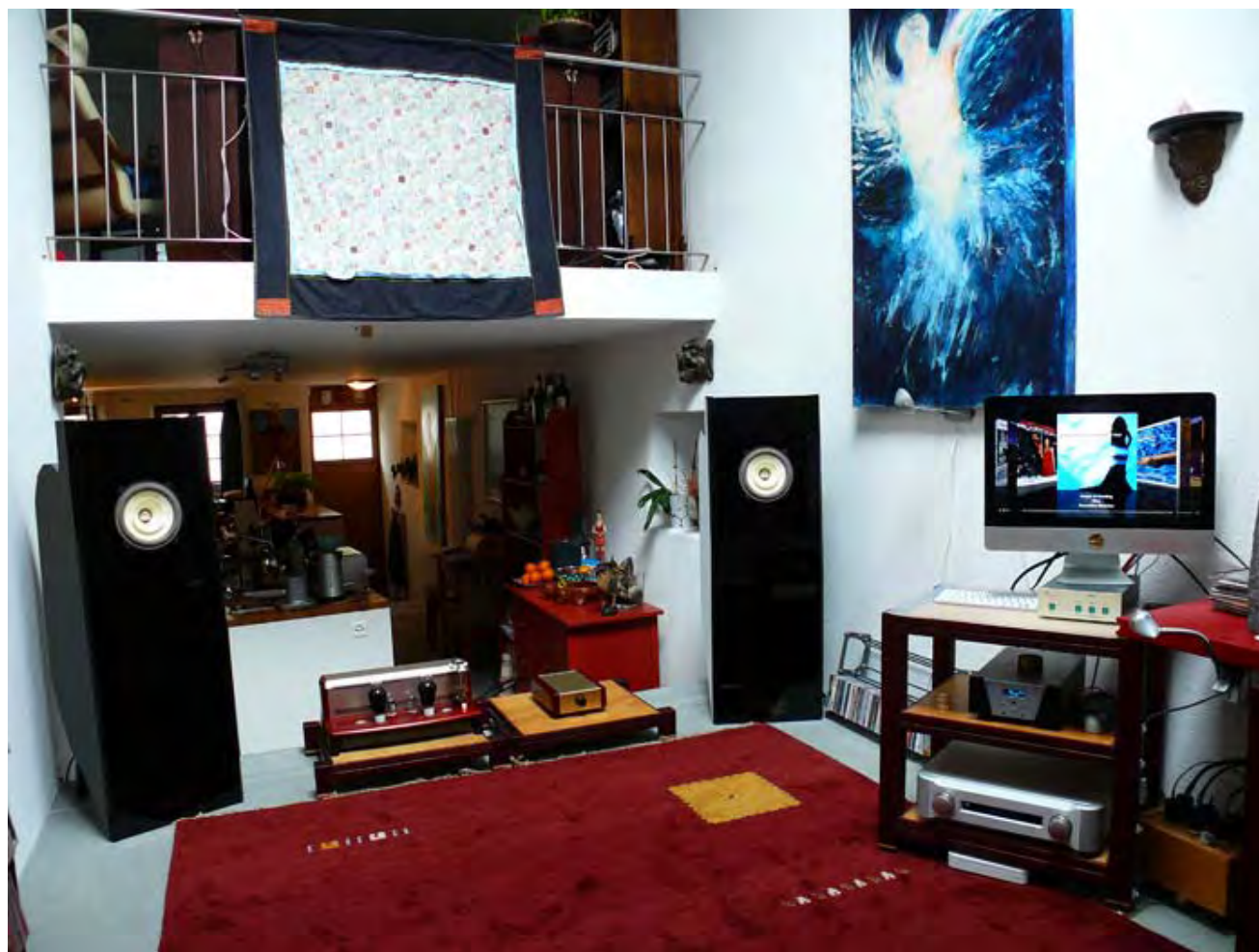
The Ampeggio soundstaged very accurately and on a grand scale. So do numerous others. The sonic totality—*wholosity* as Harvey Rosenberg would have called it—was truly seamless and coherent. Here the Ampeggio moved into special though not exclusive terrain. While a superb five-driver 3-way like my Tango should be theoretically handicapped on coherence, it's not in practice save for a tiny thing in the bass. That becomes one of a few decisive considerations. The Tango runs 1st-order minimum-phase filters. While bass extension and power-zone impact were superior to the Ampeggio, the latter's bass pulses did seem to occur atomically *sooner*. This was a very subtle matter but demonstrable.

Was it the small phase shift of the Tango's filter versus the amp-direct drive of the AC-3X? All I'm prepared to say is that on bass *timing*, the Ampeggio did have a very small but real edge. Most listeners would key in more on subjective bass power and low-down reach. Hence they'd call the Tango superior in a heartbeat. If you listened predominantly to very bass-heavy high-impact fare, you'd be right. To tease out Voxativ's advantage in the first place and call it preferable in the second means trading the obvious for something more subliminal. Who'd make such a choice? I cannot predict that. But make no mistake, it's a very real and *sophisticated* choice.

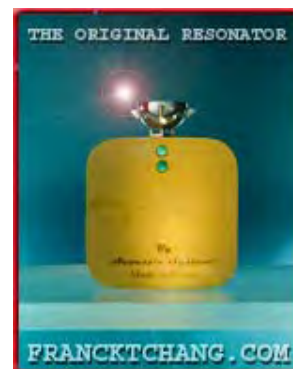
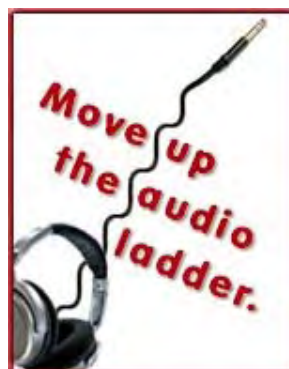
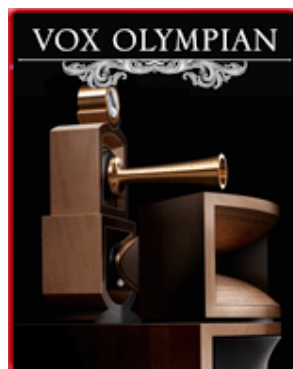


A more overt distinction of the Voxativ was *luminosity*. Both the Tango and Reference 3.5 were robuster and earthier. While far from ethereal—it's too anchored in the bass for that—Ampeggio's very spacious, direct and translucent presentation introduced a type of *Turner effect*. JMW Turner [1775-1851] was an English romantic landscape and marine artist famous for the luminosity of his paintings. Depicting real objects in realistic settings, he managed to have celestial light break through such that the material plane seemed suffused, energized and spiritualized by this luminescence. With composers of the Romantic era, Anton Bruckner was arguably the closest equivalent in how his nine symphonies make the constant presence of the spirit world tangible.

My Rethm Saadhana speaker had that very same quality. Its maker refers to it as *breath of life*. Poetic by default since we're attempting to describe gestalt rather than measurable quantities, that phrase fits. Modern synthesizers can clone instrumental timbres to near perfection. Yet a synthesized clarinet played by a keyboard or air-blown synthesizer never captures how human breath and tongue impact articulation, flow, microdynamics, pitch variation and timbre shifts from different fingerings for identical notes. While basic timbre can initially fool us, it takes a mere few notes to hear that the transitions from one to the next are artificial. It's in the *transitions* where we discern the synthesizer over a few short bars every time.



To simplify, a synth might *sound* like the real thing but it never *feels* like it. Ultimately feel of course relates directly to sound but it certainly does transcend test-bench focus. In a similar vein, luminosity or breath of life have to do with feel. It's about an organic 'on the breath' vibe that's suffused by light. It doesn't make the sound less material per se. It does however make it less robust. Milan Kundera's book title *The Unbearable Lightness of Being* is fitting. It's not the heaviness or mass of being. It's not the impact or energy. It's the lightness of being. Referring again to the above painting should make the point. The boats on the water are real but overshadowed by a context of illumination that seems to break out from within the material world.



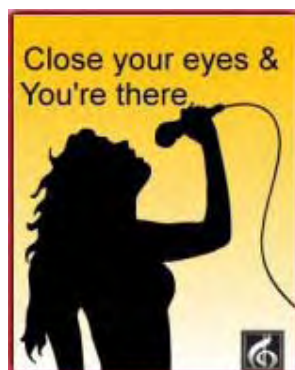
This luminosity is Ampeggio's core virtue. It becomes most compelling and relevant on voices, acoustic instruments and good recordings where superior phase accuracy depicts more audible space with its spider webs of subtle reflections, overtone sprays and presence halos around the performers. It's mostly wasted on HipHop, electronica and compressed studio crap. The gestalt difference between Voxativ and my Rethms was that the German's bass transients were continuous with the upper bands, their power and general amplitude superior. The Saadhana's bass—mine still runs dual isobaric woofers, the V2 iteration has three—was neither as potent nor as accurately timed. I could clearly hear and appreciate the top-to-bottom coherence of the AC-3X versus the (very cleverly but still) patched-together Lowther + woofers with dedicated bass amps. Quantitative distinctions between these speakers I already covered.

Terms like tacit, tactile, immediate and direct are reviewer jargon to point at the moon. As the proverb has it, don't fixate on the finger lest you miss the moon. In audio, the *live vibe* links directly to transient steepness; how far the initial cycle overshoots the next in amplitude; and whether all harmonic constituents of a tone rise as one. Or do they scatter over time due to phase delay between different drivers? Frequency linearity is far less important to musical realism than time-domain accuracy. The German Klangfluß company calls it the *shock-wave precedent*. Our [factory tour](#) makes worthwhile reading on that subject.

Dynamics in this sense aren't about the delta between quietest and loudest event spread out over a musical piece like between the barely audible double-bass tremolo of a Bruckner "Andante" opening and its climactic chorale with piercing piccolo flutes, thundering timpani rolls and blaring brassy. It's about the suddenness by which percussive events rise from zero to peak; and the size of those peaks. The Ampeggio won't ever compete with horns on ultimate *peakiness*. Other speakers will ultimately be more dynamic on a macro scale, especially once we move the system into more palatial spaces.

It will be harder however to find a speaker that equals the Ampeggio on the microdynamic scale where top-to-bottom speed is king. Clearly its rise times are quite exceptional. *That's* what makes for all that finely filigreed accuracy. Rather than forcefully precise and mechanical, it's easefully delicate and flowing however. What exactly is responsible for this overriding luminosity and underlying breath of life? Harmonic fidelity. That's not about ultimate extension. There the Voxativ is shockingly good—considering—but surely not an ultimate reference. It's about *timing*. You'll only hear proper harmonics when they're aligned with and rightly assigned to their fundamentals. Even the slightest smearing in time undermines this luminous lucid quality.

While a diamond super tweeter for example might measure flat out to 60kHz, it's immaterial if overtones don't occur vertically on top of the matching fundamentals because those are being reproduced by another driver with a preceding phase-shifted crossover. This mirrors the first watt credo. Why bother with hundreds of watts when the first one is crap? Why bother with breaking ultrasonic records when the time domain is scrambled? Instead of airy sweetness, super extension then only buys tizz, steel and hardness. Obviously luminosity has nothing to do with brightness.



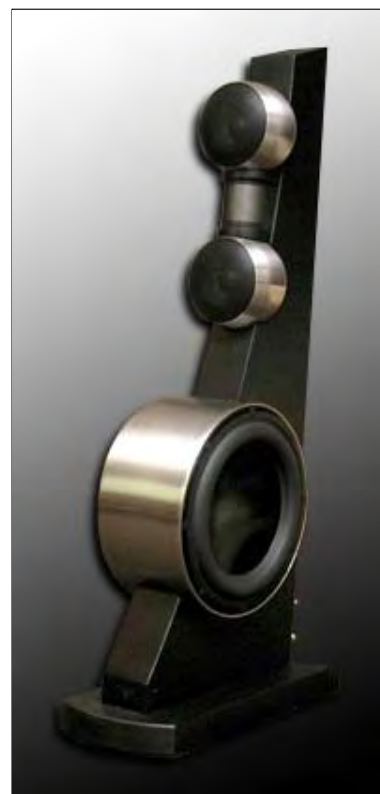


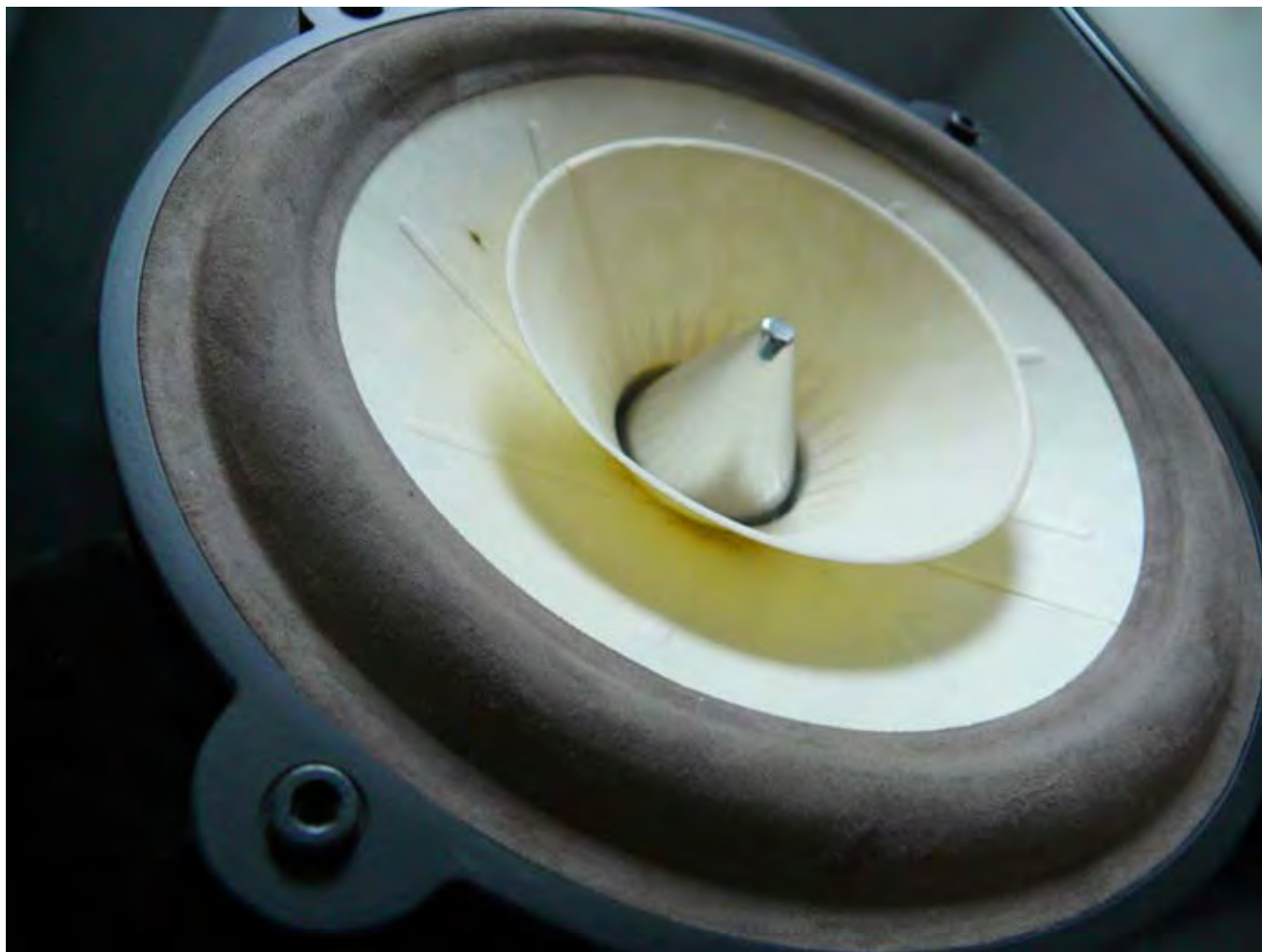
Personally, the overriding persuasiveness of the Voxativ was hearing my Rethm Saadhanas' luminosity in a full bandwidth version with more potent and better integrated bass; and without the occasional glinting in the presence region. If you're sensitive to and attracted by this luminosity, I believe that in the dynamic realm, you can *only* get it from this type of light-coned highly efficient widebander run solo.

A full-range electrostat would be a valid counter option but sonically tends to be less dynamic. Practically it demands beefy amps with complex gain stages and load invariance. This very likely undermines the aspects of easeful speed and *purity* low-power two-stage circuits without feedback offer.

Most all other sonic qualities of the Voxativ can be found elsewhere too, often for considerably less and in matters of ultimate implementation routinely superior. On timing precision for example, Gallo's Reference 3.5 is very close. Its power region has higher impact, its output potential is superior as is its ability to separate out Mahler-type scenes of a hundred-plus extras. On spaciousness, it's mostly a draw. The vital distinguishing feature is luminosity. The Gallos' speed is married to a very robust fleshy character to make it a super-fit muscular performer. It's Shotokan Karate versus fluid T'ai Chi. Gallo's airier leaner \$2,000/pr Strada moves closer yet to the Ampeggio but lacks the widebander's bass extension. Absolutely necessitating a subwoofer, the Strada then loses a bit in the cohesiveness stakes.

In short, to *exactly* end up with Ampeggio's "Turner effect", it's probably not possible via means other than those Inès Adler has incorporated to such a well-honed and balanced degree. I do wish her speaker was less costly though. I do wish the same for Nagra gear. In either case, the level of perfectionist finish and applied engineering combine to a level of luxury execution that makes such comments a reflection on personal means rather than rational criticism. When luxury delivers as it ought to and pricing retains a reasonable correlation between actual build cost and sell price, all is as it should be. I'm inclined to think it applies here.





Conclusion: Inès Adler's Ampeggio appears to be a milestone in modern widebanders. That's true for her raw AC-3X drive unit *and* the expert marriage of transducer to enclosure. With solid bandwidth from 40Hz to 20kHz, it's presently one of the most compelling samples of the breed and surely the best I've encountered by not a small margin. The Ampeggio also is a musical instrument not merely on looks or because of who makes it. It's a musical instrument in how its superior time domain performance establishes proper harmonic fidelity in ways that read abstract or poetic but in the listening seat communicate themselves without any mouthfuls of fancy words. This somehow pierces right through the material and mechanical aspects of the playback process. One feels connected directly to the innate 'spirituality' of the wordless but universal art form of music. How much you'll appreciate this *difference* to want it for yourself and are willing to pay for... that primarily should be a function of exposure and expectation.

The most likely prospects to seek out the Voxativ Ampeggio might be so those who, having previously heard a Lowther, got it and felt the siren call but couldn't commit due to obvious flaws. An uncompromised high-performance widebander run solo remains quite the rare critter. Most precedents are imbalanced. This usually kills interest in those who wrote off the theoretically promising concept after experiencing flawed examples. If you've read various anti propaganda that flat-out asserts that present technologies don't allow for full bandwidth performance from one driver... well, you probably won't stand in line to hear an Ampeggio. Be assured though that the Voxativ goes places no Lowther I've ever heard has before (which doesn't mean such designs don't exist, just that I haven't heard them). In my book then, this is a breakthrough.



It's very much a sparkling new boutique wine in a musty old bottle. It reinvigorates this most vintage of audio concepts to perhaps insure its ongoing relevance. For concept and execution, Ampeggio gets a standing ovation that begs for many enthusiastic encores. While Anthony Gallo's Reference 3.5 at \$5.995/pr is the Ampeggio's equal in many important performance parameters and superior in some, the solo widebender retaliates with the "Turner effect". If *that's* what you're after—it's very compelling—you have to pony up. Should luxury realizations have you freeze up despite personal desire, you might find relief considering that even Voxativ's current AC-X top field-coil driver at €5.500 prior to VAT (at least on price - the jury on performance remains out) is completely overshadowed by Feastrex's D9e-II 9" field coil driver. That exotic beast rose from last year's already steep \$27.000/pr to a whopping \$42.000 just for the drivers, cabinet to be supplied elsewhere. As uncle Albert put it so famously, it's all relative.

Given the Feastrex precedent and hifi's law of relativity, Inès recognizes that certain customers wanting the very best are quite prepared to pay for it. In collaboration with top German magnetics and metallurgy firms like [Vaccumschmelze](#), she is presently working on a no-holds-barred 100% cobalt-iron motor version of the AC-X. This AC-Xp—'p' for permendur— will be an option for the forthcoming Wall Horn speaker model.

It and the Ampeggio will also be available in special-edition *acrylic* variants. This takes advantage of Schimmel's already established expertise with custom pianos in [acrylic bodies](#). The acrylic Ampeggio and Wall Horn models will cosmetically benefit from gold-plated magnet casings and special wire-routing channels. This should take the concept of fine audio furniture over the top and into the world of the most exclusive mansions.



What Voxativ contributes to the genre with their Ampeggio model now is a perfectionist turnkey driver/enclosure solution that was conceived and realized as an inseparable whole, then built to musical instrument standards. In this exact combination of attributes and performance, it strikes me as unique. I also find it promising for the single-driver sub genre of exotic loudspeakers which I'd personally nearly written off as not being completely viable. I was wrong. The Voxativ Ampeggio proves otherwise. The future for such speakers looks bright again!

Srajan Ebaen

Quality of packing: Presumably first rate and built by Schimmel Pianos as an expert in shipping luxury goods worldwide but my delivery came by car tucked in bubble wrap.

Reusability of packing: Unknown.

Ease of unpacking/repacking: Unknown.

Condition of component received: Minimal finish wear as a well-traveled dealer demonstrator. Otherwise clearly top-end stuff. White piano lacquer wears a lot better than black and doesn't mirror its surroundings. White would be my vote by a landslide.

Completeness of delivery: Perfect.

Human interactions: Candid answers to all questions.

Pricing: Unapologetically high.

Final comments & suggestions: None on performance. A poor man's finish option of basic veneer that shaves off 5G might be very welcome. Transistor amps may apply but must be as refined as a FirstWatt J2, M2 or equivalent. Traditional direct-heated triodes might appear ideal candidates but the coagulation effects of heavy THD do compromise some of this speaker's phenomenal speed and lucidity. Ideal candidates might be advanced mid-power push/pull valve amps of superior bandwidth, high rise times and deliberately minimized 2nd-order distortion.



Voxativ [website](#)



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