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Wilson Benesch Eminence





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THE EMINENT ONE

By Carsten Barnbeck. Photography: Ingo Schulz

Wilson Benesch has delivered a crème de la crème sound converter with the Eminence. This super speaker responds sensitively to the electronics, discretely and imperceptibly coercing upstream amplifiers to do its bidding—unbridled musicality! It's enormous, heavy and exclusive, so it could not come to us, thus we went to it.

Leonardo Fibonacci was far ahead of his time. While his contemporaries armored up and fought through the history of the world, he packed up his gear and set off on a long journey of learning to Byzantium and the Caliphates of Spain, Africa and the Middle East. Upon returning home he was a polymath with a predilection for mathematics. His accumulated knowledge, which he published in 1202, still serves us today as proof that *his* Middle Ages were not as backwards as we might think. One of his discoveries is the “Fibonacci Sequence”, an endless chain of natural numbers. As he immediately observed, many natural processes can be explained and predicted with this numerical series. The ratio of the adjacent values equates quite accurately with the “Golden Ratio” (approx.

1:1.62), whose harmony is only too well tried and tested in the arts, nature, architecture and hi-fi.

But let's move 820 years along the timeline. At the end of April 2022, together with his distribution partners IAD, Wilson Benesch invited one and all to Hamburg. Dealers and journalists heeded the call and arrived at media@home Fidelity in Rellingen. The event marked the market launch of the new Fibonacci Series reference loudspeakers. The Resolution 3zero and the compact Discovery 3zero played in two smaller listening rooms. This naming convention refers to the more than three decades-long history of the company founded in 1989. The flagship “Eminence” model was front and center. ►

Menu item of the day: Wilson Benesch's Eminence played on the WestminsterLab Quest preamplifier and a bi-amping combination of four Rei power amps. A Lumin X1 that was converted via the Luxman D-10X was the source. AudioQuest's Niagara provided clean power, and the cabling was also from WestminsterLab. Remote control: Apple. Now you can really hear!

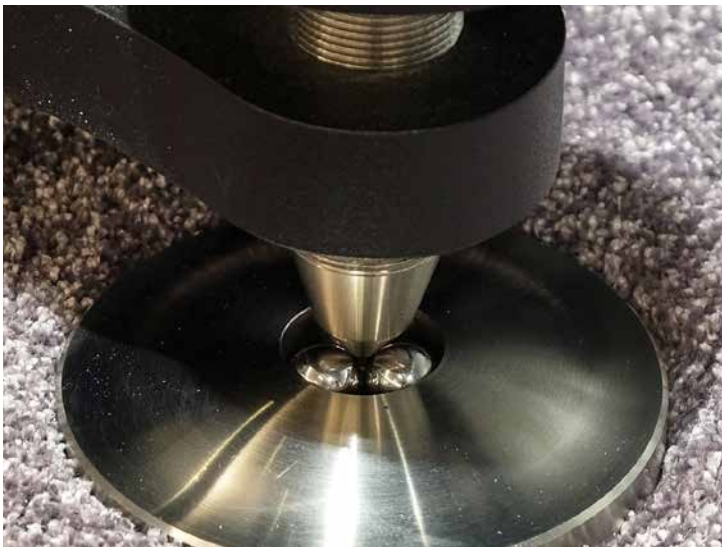


Previously announced back in 2019, it is the new family's technological showcase—all other models are derived from its innovations. Those familiar with Wilson Benesch will recognize all three names from the Geometry Series. That was the past, as Sales & Marketing Manager Luke Milnes, son of the company founders Christina and Craig Milnes, explained: The new Fibonaccis result from Wilson Benesch's revolutionary process, which began in 2016 and is part of a collaboration called "SSUCHY".

The project was initiated by the European Union as part of the "Horizon 2020" initiative, with the goal of replacing oil-based materials such as carbon fiber with next-generation composite materials. Then the EU

brought hand-picked companies and universities together. Manufacturers from the aviation, the automotive and acoustics industries, in this case Wilson Benesch, presented their concepts, which were then carefully examined by the participating research facilities. Luke Milnes from SSUCHY was so enthusiastic that we immediately saw just how exceptional the possibilities offered here were. Wilson Benesch has adorned himself with "high-tech" from day one. The Sheffield man's speakers are built like modern racecars. The big models are based on housings made of elaborate, biocomposite monocoque fashioned by hand. The combination of various materials (with an inner supporting frame made from aluminum) ensures a benchmark resonance performance in the upscale hi-fi market. Furthermore, the

The aluminum block from which the Eminence's base is milled weighs some 70 kilograms. About 40 of these are left when it's ready. Interestingly enough, the gigantic speaker's feet don't just stand in the floor protectors also supplied—the spikes center themselves rock-steady in an arrangement of three steel balls. Once positioned, the behemoth is unmovable.



inverted-mounted drivers of many models are hardly just expressions of British eccentricity—they are part of the both ingenious and costly “isobaric” woofer concept, which enables powerful bass units with the lowest housing excitation. However, to date all of these technologies were based on conventional sound measurements and the fine tuning and adjustment in the listening room beloved by all.

SSUCHY gave Wilson Benesch the opportunity to analyze materials, housings and diaphragm surfaces with a fleet of measurement equipment that most mid-sized companies can't even dream of. Materials and housings were created via a collaborative approach using work-based packages that would be created through the industrial partners

and the FEMTO Institute in France, who would then provide Wilson Benesch with the package to create panels and monocoques using the companies' advanced Vacuum Resin Transfer Molding (VRTM) Technology. The components would then be returned to the FEMTO Institute who would perform high precision vibrational analysis and modelling. This iterative and collaborative approach to cutting edge research allowed an understanding of the materials and the effect of resonant energy and energy transfer at a microscopic level that has never been possible before.

During my talk with Luke Milnes, he showed me a tone arm. Up to that point, I had boxed the Brits off as purely loudspeaker manufacturers. In 1989, the distant ancestor of the practically weightless carbon ▶

All homemade: Over the past three decades Wilson Benesch has accumulated solid knowledge on carbon processing. Above you see the central component of the Nanotube-One tonearm, which is produced right in Sheffield. The 3D printer components are comparatively new. Here you see a mechanical driver-damper (left) and the tweeter's new Fibonacci suspension.



arm even formed the nucleus of the company. Since the 1990s, these British guys have been processing carbon fibers, steel and aluminum to produce all of their high-tech components on-site in Sheffield. Only for refining and finishing do they look to partners from the automotive industry. The arm in question includes a feather-light titanium weight, which Wilson Benesch produces in a 3D printer. Of course, a two-meter high floor-standing speaker with a body weight of just under 150 kilos doesn't need a filigree counterweight. Indeed, the light-as-a-feather creation in my hand is testament to the technical heights at which the British are operating.

Now you might be wondering when we'll discuss the Eminence itself. Essentially, we have been all along, because the top model of the Fibonacci Series isn't a revolution at all—it's an evolutionary step (but a big one at that). When compared with the Geometry Series, the Eminence has remained unchanged. However, the advances made with the SSUCHY Project have created the next generation of the ultra-modern Fibonacci Series, with the Eminence at the very top. In the official information, Wilson Benesch describes his behemoth as an enclosed 2.5-way speaker, which is a tad misleading. As Luke Milnes

explained, it's actually 3.5-way. The errant info is due to an Eminence special feature based on "the best crossover is no crossover" solution: The midrange driver, so that the driver directly below the tweeter runs completely unfiltered. Except for the treble, Wilson Benesch uses identical 7-inch units (170 mm) in every frequency range. The new Tactic 3.0 is an aptly named "isotactic" driver, utilizing a polypropylene diaphragm and a new Fibonacci element in the center, which reproduces vibrations from the music's deepest bass frequencies right up to about four kHz distortion-free. To maintain discreet crossover (only first-order filters, 6 dB, are actually used), they incorporate dampers made from their 3D printers which mechanically limit their diaphragms. These dampers are visible because they're mounted where you'll find the dust caps on other diaphragms. However, the "prefiltering" is both via the thickness (and thus the mass) of the material and the filigree openings. So now please, we request complete concentration, because we've come full circle:

Numerous regularities and patterns can be determined with the Fibonacci sequence. A prominent example is what's known as "phyllotaxis", a spiral-shaped arrangement of angles, as we've all undoubtedly seen in sunflowers. These patterns in particular are used at numerous points

The hallmarks of the new model series are the Fibonacci elements inside of the drivers. The “weight” in the midrange unit (left) ensures mechanical frequency range limiting. Therefore the most important driver for voices and instruments can work over the crossover, entirely without any detour. This is a brand new freedom that you can truly hear. On the right – the tweeter with its decoupled Fibonacci front panel.



within the new Fibonacci family. Milnes explained to us that the Fibonacci formula has enclosed itself as a true panacea. It forms extremely stable structures, which simultaneously allow basic movability (and thus energy transfer).

The silk and carbon-fiber hybridized dome tweeter sits above the midrange driver. Behind its visible arch is a high-precision, built-in carbon fiber dome. According to Luke Milnes, tweeters have the unfortunate property of deforming inwards and are uncontrolled with certain frequencies. To counter this, Wilson Benesch installs the arched “carbon fiber halo” behind the silk dome, which prevents the diaphragm from breaking. Only then is the high 30 kHz frequency range possible. Furthermore, the tweeter is in the center of a decoupled Fibonacci front panel, and behind the driver sits a printed rear panel that gobbles up the tweeter’s back-fed energy. The two upper chassis are configured as “upper basses” and close the gap between the midrange unit and the woofers.

Which brings us to the connecting feature of all Fibonacci Series models: In the bottom halves of the housing are four 17-centimeter woofers, which are mounted inverted. Inside each housing are four

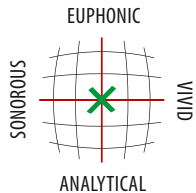
opposing identical drivers, which form a push-pull bass drive system. Wilson Benesch calls this principle the “Isobaric Drive System” (isobaric comes from the Greek root and means “same weight”). This concept distributes the load of powerful bass frequencies to two Tactic 3.0 drive units each, so that the relatively small 17-cm woofers can be maintained. These are extremely fast, and thus they integrate almost perfectly into the midrange units. The real trick is in the perfect time-alignment of the eight drivers all in one large, full-range speaker. In turn, the Eminence achieves sound power that you would never believe such slim speakers to be capable of. To optimize this, a listening distance of at least five meters must also be guaranteed. For “smaller” rooms, siblings such as the Omnium or the Resolution 3zero may be more suitable alternatives.

The isobaric structure is simply superb, but it’s rarely used because of the high costs (twice as many deep bass drivers). Yet in the Eminence it is compulsory, as all of the drivers are combined in the handmade housing’s monocoque. An aluminum brace, girding the speaker in the center, ensures even more composure. Meanwhile, the distinctive carbon cover adorning the housing helps the large speaker to reduce ▶



Wilson Benesch Eminence

A technical masterpiece, which at the end pours forth no less than pure emotion. Wilson Benesch's Eminence is a sophisticated speaker in every sense, transforming music-making into audible fun.



CHALLENGING = A component is 100% intuitive if you can exploit its potential to the full intuitively.
 INTUITIVE =

standing waves in the listening room. A heavy aluminum base, milled from 70 kilos of material and still weighing a solid 40 kilos when it's ready, provides a powerful foundation. Intimidating spikes form the bottom connection, sitting in the center of three steel balls, which are fixed in the plates also supplied.

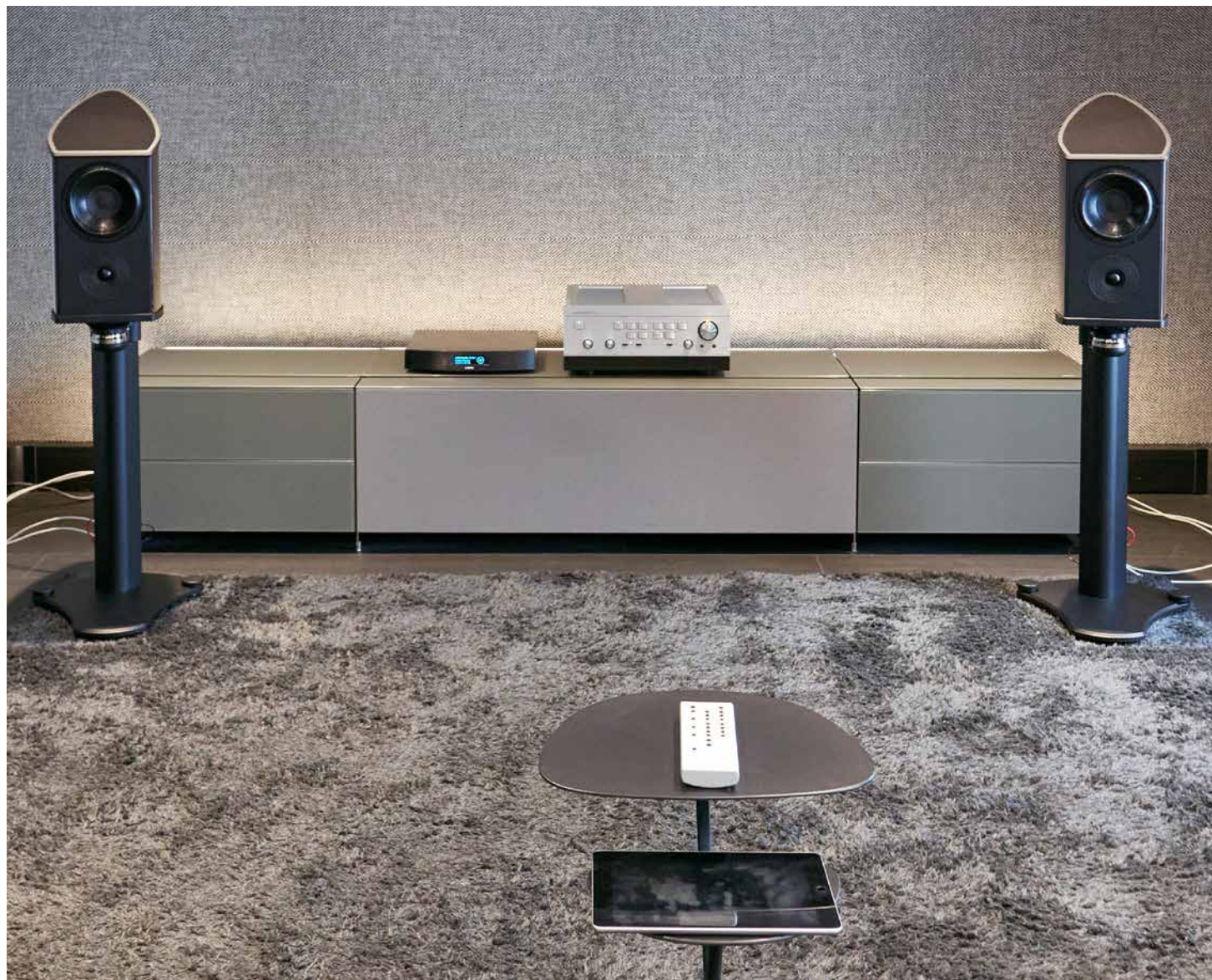
But now to the most important question: What does this colossal structure actually sound like? To get to the heart of it all without interruption, we also reached out to media@home Fidelity on the day after the event and actually let the Hans-Joachim Acker and Frank-Michael Buck team go all-in and undisturbed in the big listening room. For the event, the speaker was placed correctly in the room and in true bi-amping, wired with a chain from WestminsterLab (1 x Quest and 4 x Rei) as well as the Lumin X1 top streamer, which was converted from the Luxman D-10X flagship CD model. Nor did we change anything here, because once set up, the Eminence is truly unmovable. There was no chance of setting it up differently or moving it even if we had wanted to. Wilson Benesch's top model gave us a listening experience with

Luke Milnes accompanied us patiently through the listening tests and answered our numerous questions about the design details of the Fibonacci Series and its flagship model—the Eminence. On the right is another view of the chain, which was stylishly positioned in Solidsteel racks.

After a few hours with WestminsterLab, we changed to the Luxman L-595A SE integrated amplifier. It's shown here in the large photo on the right. During the official event beforehand he highlighted the "little" Discovery Zero3, but also blew us away with the Eminence.

the pre-/power amp combination as a flawless super speaker, which we sure won't be forgetting any time soon, even if it did sound a tad stereotyped. For the very first track I listened to Anna von Hauswolff's "Funeral For My Future Children" (*Ceremony*). This was truly breathtaking, how transparent and clear the reverb tails in the song's intro disappeared into a "felt" eternity. A little later on, a richly harmonic church organ appears, ringing crisply and multifaceted in the room. After about 50 seconds the Eminence placed the Swedish singer so vividly, clearly and life-sized before the sound structure that it conjured up goosebumps on my arms.

Luckily the Fibonacci speaker is not limited to dissecting such amazing recordings. As our listening test continued, we saw that it possesses sophisticated talent as a bona-fide fun-maker. We grooved our way over the voluminously gripping bass line of Fleetwood Mac's "Chains" (*Rumors*), to The Police's "Walking On The Moon" (*Regatta De Blanc*), dived into "When The Doves Cry" by Prince & The New Power Generation (Purple Rain), and then made pitstops with the wild guitar solo of Michael



Jackson's "Beat It" (*Thriller*) and the jagged pulses of Kraftwerk's "Die Roboter" (*Mensch-Maschine*). It is an incomparable pleasure to experience just how easy and relaxed the Eminence aspirates such hits into the room, how open and brachially honest it masters the truly sometimes complex audio mixings of the eighties, without ever showing even a whiff of raspiness. In other words: A speaker shows its talent when reproducing superb recordings, but its full potential is only revealed when even the lesser ones are also enjoyable—and the Eminence masters this discipline with distinction!

Just a little later on, the speaker demonstrated how sensitively it responds to its environment variables. We wanted to try out amplifier alternatives, and thus plundered our way through the different demonstration rooms. Our loot included two powerful Ovation MA 6.3s from AVM and a Luxman L-595A SE. In both cases, the Eminence worked out the characteristic properties of the amplifiers. With the AVMs it added an audible power boost into the lower layers, and then enthused us with the celestial musicality of the Luxman heavyweight. Even if the thoroughly tested combinations differ noticeably in sound,

they all share the Eminence's most important core competence: As accurately and precisely as the floor-standing speaker reproduces, it discreetly tempts its listeners to forget time and just about everything around it... ■

Loudspeaker | Wilson Benesch Eminence

Concept: Floor-standing speaker with isobaric bass concept | **Equipment:** 1" tweeter (silk-carbon hybrid dome), 9 identical Tactic-3.0 drivers (isotactic polypropylene, 170 mm) as 1x midrange unit, 2 x upper bass, 2 x bass and 4 x woofers | **Crossover:** 2.5-way 1st order (6 dB) | **Impedance:** 4.5 Ω | **Sensitivity:** 89 dB | **Frequency range:** 24 Hz to 30 kHz | **Recommended amplifier power:** from 100 W | **Special features:** A.C.T. 3zero mono-coque housing made of biocomposite material, enclosed woofer with isobaric bass concept, adjustable spikes with floor protectors | **Finishes:** 11 veneers and 3 varnishes | **Weight:** 145 kg | **Dimensions (W/H/D):** 28/199/68 cm (without foot) | **Warranty period:** 5 years | **Price:** Circa €190,000 (black)

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