

FIDELITY[®] 13

international



13

02/2019 • May/June/July 2019

The German Voice of Premium Audio... a free online magazine





Burmester

Phase 3 Loftstyle

PHASE 3 is an extension to the traditional Burmester product lines, joining ultimate demands on sound quality with musical culture and modern lifestyle in a perfect blend. The designoriented concept incarnates both the timelessness of the Bauhaus style steel tube furniture and the industrial charm of modern lofts.

Audio Note's copper foil capacitors are some of the best audio capacitors in the world. Foil capacitors are basically very simple components, but as is so often the case, the devil is in the detail. ►►

1746: Leiden Jar developed by Pieter van Musschenbroek

1758: The term "capacitance" is defined by Giambattista Beccaria

1775: "Electrophore" parallel-plate capacitor developed by Alessandro Volta

1873: James C. Maxwell: *A Treatise on Electricity and Magnetism*

1725

1750

1775

1800

1825

1850

1875

1745: Ewald G. Kleist invents the "amplification bottle" or Kleistian jar

1759: First ever parallel-plate air capacitor developed by Franz U. Aepinus

1847: Heinrich Helmholtz: *On the Conservation of Force*

Photography: Ingo Schulz

Audio Note uses an oil soaked, extremely thin Mylar film as dielectric material between the copper foils, because it transpired that the quality and longterm stability of the paper in oil found in old capacitors can no longer be matched for inexplicable reasons.

1887: Heinrich Hertz: *On Very Rapid Electric Oscillations*

1875

1907: Radio receiver with vacuum triode developed by Lee De Forest

1900

1949: High-voltage capacitor developed by Albert Liehti (Micafil Zürich)

1925

From 1950 onwards: spread of synthetic film capacitors

1950

1975

2000

2025

1881: "Farad" becomes the unit of capacitance

1892: German patent on variable capacitor awarded to Désiré Korda

1909: Ceramic capacitor developed by William Dubilier

1925: Capacitor microphone developed by Joseph Maxfield and Henry Harrison

Formula xHD

- Proprietary Optologic DAC
- Pure FPGA-based R2R Ladder
- Fully-floating (isolating) D/A converter system
- Hybrid USB xCore 200 (dual core) in Bit Perfect up to 768 kHz PCM and DSD 512
- Filterless Non-oversampling digital architecture



Unconventional DNA



La Voce S3 dac



La Scala Optologic dac



Formula xHD dac



La Diva cd transport

DEAR READERS,



Carsten Barnbeck,
Editor in Chief

Do you tinker and tweak or listen and enjoy?

Certain experiences raise all sorts of questions and immediately force you to see things differently. A few weeks ago, I had the very exclusive honor and pleasure of spending an intimate hour with German manufacturer Tidal Audio's top-of-the-range system. To put it mildly, the system blew me away and managed to get me to forget about everything that was going on around me for a while. Incidentally, you can find out more about our visit to the super manufacturer in the next FIDELITY International. I have often pondered over why I now very seldom find myself feeling fully immersed in the actual music itself. The Tidal chain is of course in a class of its own. And yet this is strange because, as the editorial testing team, we are regularly surrounded by exceptional components and fantastic systems.

However, as is so often the case, the devil is in the detail or rather in the processes we go through on a daily basis. We could just call it "routine": we set systems up and then, instead of just sitting back, relaxing and

enjoying them, we spend hours on end tinkering to achieve the perfect loudspeaker arrangement and testing out various different power and signal cables. Ultimately, we want to get the best out of every system to ensure it reaches peak performance. And when everything is perfect, we leave the system alone... after all it has to warm up and burn in a little first. And when we tinker with it again later in even more detail, we find ourselves enslaved to the intensive process that is a listening test. In hindsight, I need to add another entry to my list of New Year's resolutions for 2019: develop strategies in order to spend more time sat in front of the system covered in goosebumps. And urgently! There's certainly not a lack of suitable hardware for the job. As always, in this issue of FIDELITY International we present you with tantalizing highlights from the world of high-end audio. Happy reading!

Carsten Barnbeck



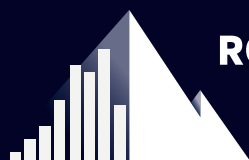
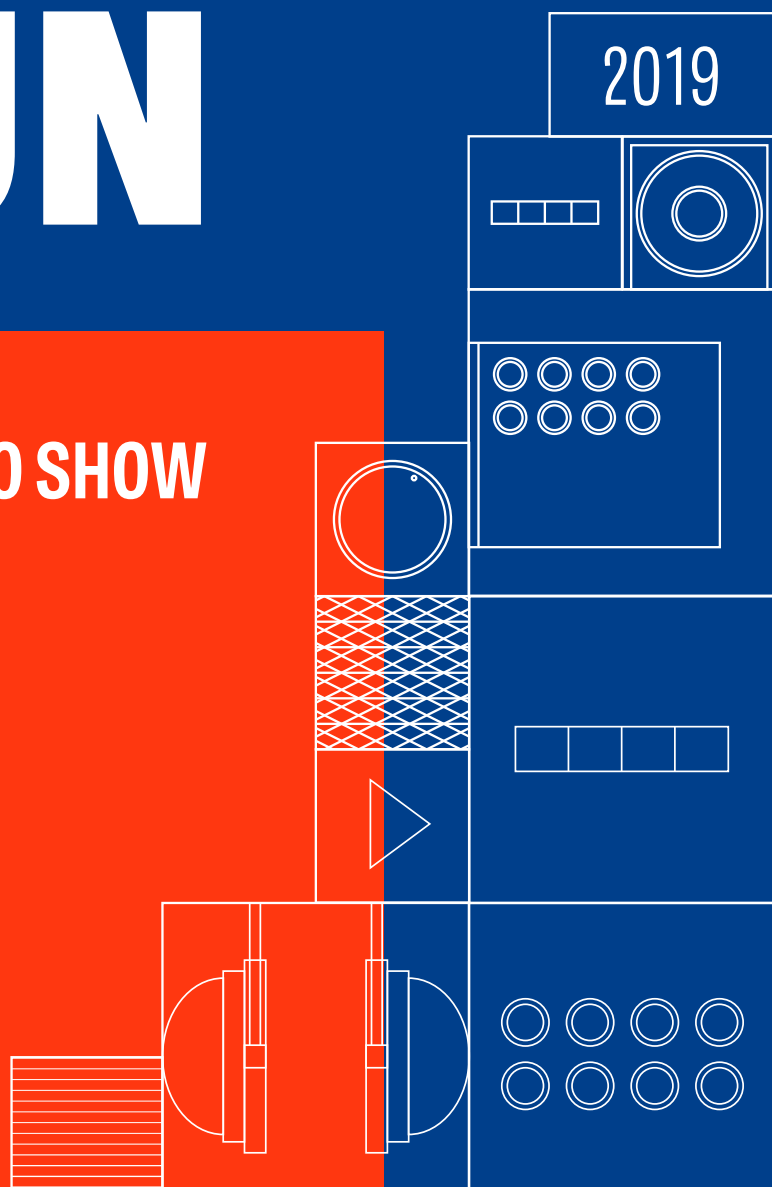
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May/June/July

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Stereo 3 Loudspeaker





Sottovoce Audio Stereo 3

ACTIVE FLATTERY FOR YOUR EARS

By Hans von Draminski. Photography: Ingo Schulz



SMALL AND EXCLUSIVE, THE STEREO 3 PACKS A POWERFUL PUNCH IN TERMS OF SOUND. SPANISH HIGH-END MANUFACTURER SOTTOVOCE AUDIO BUILDS THIS PREMIUM COMPACT STANDING SPEAKER BY HAND IN VALENCIA. THE STEREO 3'S STRIKING HOUSING ENCASES VERY CAREFULLY TUNED ACTIVE ELECTRONICS THAT PARTNER WITH ESPECIALLY INTERESTING DRIVERS TO CREATE SOARING HEIGHTS IN LISTENING PLEASURE.





_____ The FIDELITY team usually refrains from doing comparison tests because, in addition to measured values, personal preference also plays an important role when evaluating a component for the highest quality playback. But as coincidence would have it, the understudy speaker of a well-regarded Swiss manufacturer happened to be standing right next to the pleasantly streamlined Sottovoce speakers in the FIDELITY listening room. Of course

we couldn't stop ourselves from carrying out the split test, knowing full well we were comparing apples to oranges as we were contrasting a passive super speaker with an active speaker that would have much less volume. I'll refrain from listing everything the "bigger" one can do better. After all, it seems much more important to me to point out that the difference wasn't as great as I initially expected and that the Sottovoce Stereo 3 is a classic specimen

from the "mock dwarf" speaker category—a transducer whose initial appearance doesn't suggest the acoustic heights it's capable of reaching. Ensuring the €12,000 speakers housed in the exceptionally elegant, casual form of a parallelogram—a shape that successfully eliminates standing waves—, can leave earthly gravity behind requires high-quality electronics that should ideally originate from a neutral sound source. In addition ►









to my reliable Mark Levinson preamp No. 38s, the listening room offered the preamp section of the brilliant Trigon Exxceed Integrated amp, which, thanks to its balanced outputs, didn't have the slightest problem controlling the Sottovoce Stereo 3, a speaker that's also blessed with a balanced connector panel.

Should any readers out there still harbor doubts about the acoustic merits of class-D amplifiers, I can now give you the all clear for the Stereo 3, in which this principle mobilizes 400 watts per channel: The amplifier section of the slim, 16.5-centimeter-wide standing speaker sounds perfectly balanced between energy and sound culture; even recordings known for their demanding production played through the clever three-way design did not overemphasize the treble range or sound too lackluster.

The coaxial mid-range tweeter with a frontal horn set enables this crucial tonal range and produces a result virtually free of distortion and with exceedingly vivid spatial quality. Two 20-centimeter woofers work back-to-back in closed volume to help to suppress housing vibrations, thereby generating pressure and precision in the bass.

Despite the Sottovoce Stereo 3's relatively small housing size, it can still deliver distortion-free listening pleasure at rather high volumes. Your ears will more likely need a break before this appealing transducer will. At the same time, the Stereo 3 isn't trying to be a party speaker; rather, it finds an audience among those who listen at a civilized level while still enjoying getting the walls shake from time to time. The space covered by the lean Spaniard is not immense, but it's clearly

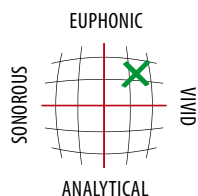
contoured and refined. Large-scale orchestral music, such as Johannes Brahms's violin concert in D major in the legendary Living Stereo version from virtuoso Jascha Heifetz with Fritz Reiner conducting the Chicago Symphony Orchestra (Sony Music), impresses not only with effortless positioning of individual orchestral voices and the soloist as the tonal centerpiece, but most of all through tonal homogeneity. Moreover, the timing is right—undoubtedly thanks to the three-way design that helps minimize differences in run time: The bass never lags, and the Sottovoce Stereo 3 is quick, spontaneous, and agile in the best sense of the words.

That makes it a top choice for sweaty jazz productions, such as "Green Street" from the hard-bop guitarist Grant Green. If you take the high-resolution Blue Note disc on SACD ►



Sottovoce Audio Stereo 3

The Sottovoce Stereo 3 is suitable for small and medium-sized rooms and has no musical preferences. It appreciates having a high-resolution to neutral-tending source and preamplifier.



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

ACCOMPANYING EQUIPMENT

CD-Player: Audio Note Zero, Mark Levinson 390s | **SACD-Player:** Marantz SA14 V1, Sony SCD 333 ES, Pioneer D6 | **Turntable:** Clearaudio Innovation Compact, SoReal Audio Seismograph | **Cartridge:** Clearaudio DaVinci und Concerto V2, Denon DL-103R | **Phono preamplifiers:** Musical Fidelity M-VNVL, Clearaudio Basic | **Preamplifiers:** Mark Levinson No. 38S, Trigon Snowwhite, Marantz SC-22 | **Power amplifiers:** Mark Levinson No. 27, Marantz MA-22, John Curl JC3, Trigon Dwarf II | **Loudspeakers:** KEF R900, Infinity Kappa 7.2 Series II



that Analogue Productions released a short time ago and listen to this silver disc over the Sottovoce Stereo 3, you can understand why insider circles consider Green to this day to be one of the trendsetters of the 1960s, having put his stamp not only on bop, but on soul jazz and bebop too. Even the most complex runs of the extremely fast-fingered guitar genius remain transparent with the Stereo 3; the sound profile stays crisp—not muddy or compressed, also at high levels. And even if the Sottovoce Stereo 3 isn't a dedicated rock or pop speaker, it definitely has the energy to have fun with today's productions. When Alice Merton laconically sings about having “no roots” and wanders more or less aimlessly through life, the irresistible groove of this extremely dance-worthy hit flows from the upper regions of the charts right down to the person sitting in front of the loudspeaker. That listeners experience no sensation of a live performance with plain studio versions has to do with the Sottovoce Stereo 3's

plain and simple honesty: The speaker provides exact information about the recording's origin without setting the production up for ridicule. “Yes, that sounds good,” it seems to whisper to me, while in the same breath reminding me that the purpose of dance floor pop is not to satisfy high-end cravings. If you want to have it all, it's worth listening to the “Saturday Sessions,” released by Sony, which date back to a very popular radio show in England: Radio and TV presenter Dermot O'Leary hosted *Dermot's Saturday Club* show from 2004 to 2017. The program focused on new pop music. O'Leary brought in individual musicians and bands such as Oasis, Supergrass, the Raconteurs, Massive Attack, Kasabian, the Guillemots, the Zutons, Alesha Dixon, Beck, the Lemonheads, Lily Allen, the Foo Fighters, Moby, and Kate Nash and let them play unplugged—both their own songs and unique cover versions. The BBC edited them and the final versions were released as double CDs every

two years. The highlight: O'Leary's “Saturday Sessions” are some of the best productions that sound devotees can buy when it comes to pop. Always surprising in terms of their repertoire, most of these carefully compiled CD packages can still be purchased new, and they put every playback device to the test with their consistently present and intense sound. If any distortion or discoloration can be heard, it's not the fault of the disc. With the Sottovoce Stereo 3, you can sit back and just enjoy. This transducer is an absolute insider tip for smaller rooms in particular. ■

Loudspeakers | Sottovoce Audio Stereo 3

Three-way active standing loudspeakers with 400 watts (class D) per channel | Dimensions (H x W x D): 1050 x 195 x 517 mm | **Equipment per speaker:** One coaxial mid-range tweeter, two back-to-back 20-centimeter woofers | **Terminals:** XLR, optional digital source connection | **Frequency range:** 33 Hz to 20 KHz | **Sensitivity:** 85 dB/1 m | **Weight:** 35 kg per speaker

www.sottovoceaudio.com



...and now for something completely different...

BROWSER

№ 01



Luxury Reissue

Mobile Fidelity Sound Lab continues to expand their Ultradisc One-Step LP boxes and now introduces Stevie Ray Vaughns *Texas Flood* and Marvin Gayes *What's Going On*. Both editions are pressed on a material called "Super-Vinyl", a granulate which is free of dyestuffs and which, due to its high-quality production, comes closer to the master tape than any other vinyl version of the albums presented.

But there's a bit of a hurry: The production results in high rejects, so the precious collection boxes are strictly limited.

www.mofi.com

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BROWSER

№ 01



Thorens a different time

The analogue tradition smithy is no longer just bringing vinyl to music: With the TM1600, the company introduced its own tape machine, which was developed in cooperation with Balfinger—a name which analog fans are likely to hear. The TM can play quarter-inch tapes wound on spools of up to 10.5 inches at 19 and 38 centimeters per second. However, a little patience is still required: the TM1600 was announced for summer 2020. The price mentioned was around 11,000 Euro, but even that should be taken with caution.

www.thorens.com

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BROWSER № 01

A bass makes music

ModalAkustik presented his new "MusikBass". The subwoofer was built according to the RiPol principle, a variation of the DiPol concept by developer Axel Ridtahler. According to the manufacturer, this technology should stimulate room resonances far less than an ordinary DiPol woofer. The MusikBass is available for 3000 Euro, but is also available as a package with a special subwoofer amplifier for 4000 Euro.

www.modalakustik.com

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BROWSER № 01



Lyravox streamer-free

The Hamburg-based loudspeaker manufacturer is expanding its active Karl loudspeaker family with the new "Pure" models. These most recent editions of family members Karl, Karlotta, Karlina and Karlos are delivered without the integrated network player. Instead, the developers have revised the still active monitors to make them even more balanced and audiophile. Connectivity has also been expanded: the integrated D/A converter now also offers professional AES inputs.

www.lyravox.com

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in-akustik Referenz LS-4004 Air Pure Silver

A BOA CONSTRICTOR THAT CAN REALLY FLY

By Hans von Draminski. Photography: Ingo Schulz, manufacturer





This is a loudspeaker cable with a license to thrill: in-akustik's Referenz LS-4004 Air Pure Silver is as thick as your forearm and a real statement piece that's very hard to beat in terms of appearance, workmanship, and, of course, sound quality. The serpent destined to entice high-end users who enjoy lingering in the garden of good listening.



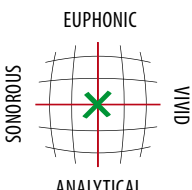




“Wait a second. Someone’s made a mistake. I didn’t order anything from the pet store. And definitely not a boa constrictor. And since when have these creatures ever been white?” I asked myself. The box was huge but surprisingly light. Actually, there’s no way the insured express-delivery package I’d received could’ve contained one of those constrictor-type snakes, even if the contents curled up in the huge cardboard box looked just like a serpent at first glance. I wasn’t hearing any hissing and the rustling was almost null. More on that later though. Lying there in my listening room was no exotic zoo animal requiring a special license to keep, but rather one of the best loudspeaker cables money can buy. An exceedingly clever accessory designed to eliminate all types of distortion and interference that could impair top-notch sound quality.

Its model name actually reveals its greatest asset: “Air” refers to in-akustik’s Air Helix technology, which has been appearing in the company’s top line of loudspeaker cables for some time now. The Referenz LS-4004 Air Pure Silver is the latest model to push to the top in every sense. Put simply, this design uses air to act as an insulator, but because construction is so complex, expensive manual processes are used to make the cable, which is produced in correspondingly small numbers. According to in-akustik, each side of the LS-4004 features 24 high-purity silver wires that all receive a razor-thin lacquer coating to ensure the wires are insulated from one another before then being braided around a PE core. The developers at in-akustik (see also accompanying interview) claim this effectively prevents the formation of stray eddy currents, resulting in a greater sense of “composure” in the conductor. A clip developed ▶



Referenz LS-4004 Air Pure Silver
The in-akustik Referenz LS-4004 Air Pure Silver is also very “easy to maintain” thanks to interchangeable connector plugs and spade lugs and very unpretentiously noticeably improves the sound quality of any system.



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

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THIS ISN'T A BIZARRE NEW SPECIES OF SNAKE BUT A LOUDSPEAKER CABLE DESIGNED WITH AN INSANE AMOUNT OF CLEVERNESS AND INNOVATION. WHAT'S MORE, IT HARDLY WEIGHS ANYTHING BECAUSE AIR IS USED AS THE DIELECTRIC.

specifically for the new cable keeps the conductors helically free in the air and guides them through the cable at a defined distance. The process also includes the conductors being threaded by hand into the Cross Link Super Speed waveguide to ensure the quality levels achieved by the meticulously assembled cable can be sustained. The design does not, by the way, respond the least bit well to pressure exerted by a human foot stepping on it. LS-4004 owners should therefore be sure to exercise great care with the white cable housing, even if it doesn't look all that fragile. They're ultimately only made from silver and PE.

There is some flexibility when it comes to the connectors though. You can choose from spade lugs or banana adapters, both rhodium-coated to minimize resistance, especially at amplifier and loudspeaker terminals. The FIDELITY test unit had both versions plus an Allen wrench so I could create a setup that was right for me in a matter of minutes. Once I got all that done, I had to be a little patient: You see, although the LS-4004 did sound promising straight out of the box, it didn't reach its full high-end potential until it had been broken in and warmed up for two or three days.

Admittedly, one significant feature was distinguishable right away, even without the warm-up period: Because it was developed with minimum inductance in mind, the LS-4004 immediately achieved impressive three-dimensionality. Due to the two-layer arrangement of the double-layer multicore, the magnetic fields around the individual conductors overlap and neutralize each other, thus considerably reducing the inductance of the cable. The “aha moment” reminded me of my own cable experiments back in the old hi-fi days when I used to construct

computer-ribbon cables following painstaking processes on the basis of a rather obscure tip I got from a DIY forum. Conductors 1 + 3 + 5 + 7 + 9 and so on for plus and 2 + 4 + 6 + 8 and so on for minus. This meant for every flow of electrons in one direction there would be an equivalent that would move within close proximity but electrically separately in the opposite direction. The reward for the orgy of soldering was, at the time, a loudspeaker cable that easily outperformed the majority of significantly more expensive cables. The total cross-section was anything but huge, yet my “PC cable” had considerably more pressure in the bass and more resplendence in the treble than almost everything available to buy in the stores back then.

That feeling I had almost thirty years ago that I was listening to a truly special component was back again. The in-akustik Referenz LS-4004 Air Pure Silver loudspeaker cable certainly doesn't radically alter a system's sound (that would actually be rather counterproductive), but it does makes things a little more accurate and demonstrates more consistency at crucial points than your average cable does.

I can't remember how many CDs, SACDs, and LPs I fed into my Mark Levinson 390s, my Audio Note Zero, my Marantz S14 V1, and my Clearaudio Innovation in the tight testing time frame I had. It must have been a few hundred. I kept noticing details I'd never picked up on before. The Referenz LS-4004 Air Pure Silver also had a very positive effect on the tonal balance, on the scope and contour of the bass range, and on the detailing of the treble.

When you listen to music at home for a long time on exactly the same system, you learn to live with its weaknesses and to tolerate the fact ▶

THE DESIGN OF THE LS-4004 WAS ADOPTED FROM HUMAN DNA. TO KEEP CAPACITANCE AS LOW AS POSSIBLE, THE CONDUCTORS ARE TWISTED IN A DOUBLE HELIX AND HELD IN SHAPE WITH A SPECIAL FRAMEWORK CONSTRUCTION.



THE HELIX-SHAPE DESIGN IS ONE THING BUT THE CONNECTIONS ARE SOMETHING ELSE: THE REST OF THE CABLE MAY SEEM FRAGILE, EVEN ETHEREAL, BUT THE RHODIUM-COATED BANANA ADAPTERS AND SPADE LUGS WILL PUT A SMILE ON EVEN A MECHANICAL ENGINEER'S FACE.



that it can't do everything the (often infinitely more expensive) heavy-weights in the FIDELITY listening room can master. I've always felt like my Infinity Kappa 7.2 Series II loudspeakers could handle anything I threw at them but that they didn't operate on a particularly spatial level. The Referenz LS-4004 Air Pure Silver showed me that even Arnie Nudell's old speaker design can create virtual concert venues with both breadth and depth. Teodor Currentzis and his exemplary recording of Gustav Mahler's Symphony No. 6 (see also "Classidility" in issue 43 of the FIDELITY print magazine) not only flooded the room with that truly great euphonic sound only a top orchestra could understand how to create, but I also got an exceptionally vivid, three-dimensional impression of how the spacious studio must have been set up in Moscow's Dom Zhukozapisi (House of Audio Recording) where Currentzis mobilized the Russian MusicAeterna orchestra to deliver incredible performances.

The fact I could pick out every single instrument in the immensely dense turmoil and didn't have to strain my ears was definitely down to in-akus-tik's Referenz cable to an extent.

Fiercely beaten kettledrums might be one thing, rock-hard groovy computer bass is something else altogether. The 25-year-old German-Canadian pop singer Alice Merton, a small woman with a big voice and impressive songwriting skills, released the EP titled "No Roots" last year and dominated the German charts for months on end with the catchy title track before also releasing the long-awaited LP "Mint" (on Paper Plane Records Int.) a few weeks ago. This is a memorable pop album: Merton understands how to write tenacious earworms that get you singing along by at least the second time you hear the song. The pre-released maxi single had the problem that it was rather casually mixed at a level suitable for ghetto blasters to be sure to impress its specific ►





target audience — which, incidentally, it did. At just over 39 minutes, the album sadly turned out to be a little short, but it did benefit from the sound engineers having carried out some fine-tuning, for example by pulling back the companders a little to give the album some of the dynamics it had previously been missing. Even the hit “No Roots” came across as slightly more transparent and more focused on the voice: The Referenz LS-4004 transported those very subtle differences and made them very clearly discernible to my ears. The in-akustik developers were also determined to prevent time delays and frequency shifts in the cable, so I found that virtual sound sources pretty much didn’t “drift” at all. The vocals sounded so clean and unencumbered by hissing like never before. And the bass kicked in so vehemently my feet began to tap all by themselves.

The silver cable really came into its own, however, with voices and instruments that had been recorded for all eternity without using any studio trickery. The four seasons being evoked by the Anne Bisson Trio on the

direct-to-disc LP recording of the *Four Seasons in Jazz — Live at Bernie’s* developed into a hot-cold trip complete with goosebumps because this already fantastic recording received a simply staggering from sense of presence and immediacy from the in-akustik Referenz LS-4004 Air Pure Silver. These white snakes can really fly if you feed them the right kind of music. They’re unbelievably good. ■

Loudspeaker cable | in-akustik Referenz LS-4004 Air Pure Silver

Setup: Air Helix, Double-Layer Multicore, 24-wire Cross Link Super Speed wave-guide; braided lacquer-coated high-purity silver conductors for low series inductance; PE network jacket to minimize microvibrations | **Assembly:** spade lugs or banana adapters, tellurium-copper angle-adjustable plug bases directly pressed together with the cable conductor, rhodium-coated contacts, length of test unit 2 m x 3 m, cable available as single wire or single bi-wire, special assemblies upon request | **Price (2 m x 3 m):** €27,000

in-akustik GmbH & Co. KG | www.in-akustik.de



"A CONTINUOUS DEVELOPMENT PROCESS"

AN INTERVIEW WITH THE CABLE DEVELOPER HOLGER WACHSMANN

The in-akustik LS-4004 is without question one of the most elaborately designed cables on the global market. The cable is so complex, machine-based production pretty much automatically rules itself out. In an interview with the FIDELITY editorial team, the cable developer Holger Wachsmann reveals why air is the most important component in this top-of-the-range loudspeaker cable.

FIDELITY: Air as a dielectric, a cable with a helix structure: What is the main idea behind the intricate design of a loudspeaker cable such as the Referenz LS-4004 Air Pure Silver?

Holger Wachsmann: Let's look at it in detail: We all know what it's like when we take off a sweater with a high synthetic content — it crackles and pops. This is because the synthetic fibers become electrically charged and then discharge again in a flash, in the truest sense of the word. The same effect takes place with insulating materials such as PVC, polyethylene, and Teflon. These materials store electrical energy and then release it with a time delay, which has a negative effect on sound quality when audio signals are transmitted along a cable. The measurement of this is cable capacitance, which depends heavily on the insulating materials used. PVC, for example, increases the capacitance value by around 4.5! On top of that, there are dielectric losses. Air, however, behaves neutrally in this regard. That's why for a long time, we've been focusing on insulation — that is, the dielectric — and have been increasing the air content by using foamed polyethylene or even polyethylene capillaries. But we've always been inspired by the thought of making a purely air-insulated cable, which ultimately resulted in this Air Helix.

FIDELITY: To what extent do in-akustik's less expensive cable lines also benefit from all the development work that goes into the top models?

Wachsmann: The top-of-the-range cables from our Referenz series have evolved gradually over the years and remain part of a continuous development process. "Smaller" models actu-

FIDELITY: What can you tell us about tuning measures for cables?

Wachsmann: It depends on what you mean really. I have to say that I'm not convinced



ally also benefit from the Air Helix technology these days, for example the Referenz LS-1204 and the Referenz NF-1204. Others will be added in the future.

FIDELITY: What direction is cable development taking? What should we expect to see this year?

Wachsmann: I can't really reveal too much at this stage, but we'll be showcasing various products at HIGH END in Munich, including power cables featuring Air Helix technology.

about the effect of "yellow stones" and the like that you place next to cables to supposedly improve the sound quality. Cable bases, for example, which are designed to keep loudspeaker cables off the floor, are a different matter, though. They work on a similar basis as air insulation and reduce the influence of the floor covering on cable capacitance. This is particularly advisable if you have carpet or floor coverings with a high plastic content such as vinyl or laminate. ■

Interview: Hans von Draminski



...and now for something completely different...



The following article is a reprint from the book *Who is Who in High Fidelity*—Vol. 1, the compendium from FIDELITY MEDIA GMBH, 2015

DYNAUDIO

Dynaudio / Wilfried Ehrenholz

THAT AUTHENTIC SOUND

By Patrick Pohlmann. Photography: manufacturer







Wilfried Ehrenholz

**Volume up or down?***Down.***Analog or digital?***Digital. That's the future. I have a large record collection, but that is just a hobby.***Tube or transistor?***Transistor.***Vinyl or download?***Download.***Cross-country run or gym?***Cross-country run. I don't like the smell of sweat...***Trends or tradition?***Tradition.***Tea or coffee?***Both.***Salad or steak?***Salad.***Wine or beer?***Wine.***Mountains or the sea?***The sea!***Book or screen?***Screen. I enjoy always having my daily newspaper and my books with me on screen.***Jazz club or opera house?***I love both.***Bach or Beatles?***Bach.***Wagner or Wacken?***Wagner. Things were maybe different when I was 18, but now definitely Wagner.***Stand-by or plug out?***Stand-by. Pulling the plug out is too much effort.*

Volume up or down? ▶

A very quick interview with Wilfried Ehrenholz, co-founder of the brand DYNAUDIO, where we wanted them to respond as fast as possible.



THE DANISH LOUDSPEAKER
MANUFACTURER DYNAUDIO
ASPIRES TO DELIVER MU-
SIC SOURCE REPRODUC-
TION THAT IS AS AUTHEN-
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WHY THE COMPANY'S
CREDO IS: ALL THERE IS.





———“I champion the old values. Not contrary to the spirit of the times, but rather in parallel to it.” Wilfried Ehrenholz, co-founder of the Dynaudio brand, regards himself as a traditionalist and visionary in equal measure. Combining the traditional and the modern—that was always the aspiration of the Denmark-based loudspeaker manufacturer. “All there is” is therefore the brand’s tagline that also expresses Dynaudio’s philosophy at the same time. Since the Danish company’s products are not meant to follow any market trends but rather are solely dedicated to optimum music reproduction. In this respect Dynaudio relies to a very large extent on its own skills, meaning the company has a history of design engineering all key components itself and producing them in-house as well. This level of vertical integration, seldom seen in the market, is evidence of the systematic continuation of

Dynaudio’s original idea. In the 1970s the company’s founders Wilfried Ehrenholz, Gerhard Richter and their Danish colleague Ejvind Skaaning were all of the opinion that the best loudspeakers you could buy back then did not deliver the required playback quality. The engineers and developers were irritated by the measurable—and of course audible to hi-fi enthusiasts’ ears—sound distortions produced by that generation of loudspeakers. The reason for that was: they all had similar designs. Their chassis consisted of copper coils with tiny diameters to ensure low weight, membranes made of paper, cardboard or rigid metal and a production-related aperture, which was sealed using a so-called dust cap. These conventional designs using simple materials frequently had to contend with distortions. Furthermore, little attention was paid to run-time differences and phase shifts back then.

Ehrenholz and his partners wanted to rectify these deficits—and established Dynaudio in 1977 in order to develop their own, entirely new generation of loudspeakers—the P Series. Ehrenholz, a graduate telecommunications engineer, states Dynaudio’s objective, then as now, is “authentic music reproduction”—although the word authentic is to be taken literally. Whilst there has been a legally defined standard in Germany relating to the “correct” reproduction of music—DIN 45.500—since the 1960s, “the question that was on the minds of Dynaudio’s team of developers, headed by Mr. Ehrenholz was however: if every loudspeaker complies with the DIN standard, why do they all sound so different?” Dynaudio’s Product Marketing Manager Roland Hoffmann explains. In short: Various manufacturers influenced the way their loudspeakers sounded in different ways—and ►



therefore gave their loudspeakers a quite specific sound. However, Dynaudio sound transducers were designed to avoid that very problem. One key to that was the development of an unconventional chassis. The voice coils were made of aluminum instead of copper, which delivered a substantial reduction in weight. This enabled larger coil diameters to be actioned and therefore improved power transmission to the membrane. A new

membrane material was also used: a magnesium-silicate polymer, of which Dynaudio's membranes are still made today. This "MSP" perfectly combines the benefits of conventional membrane materials: the lightness of cardboard, the rigidity of metal and the high level of inner attenuation of polypropylene. In combination with the in-membrane dust cap, Dynaudio's new chassis represented a significant step forward in playback quality terms.

The concept, which focused on maximum authenticity, was greeted with increasing enthusiasm by audiophiles all over the world. Again and again Dynaudio also succeeded in setting new standards by launching new generations of products, such as Consequence in 1983, one of the best-selling high-end loudspeakers to date. It now features again in the product portfolio and is known as Ultimate Edition. Dynaudio's most important markets are still ►



Germany, USA and Australia, but the so-called emerging markets, Russia and China, are rapidly gaining importance. The company now employs 250 people; the products are manufactured in Denmark at the company's headquarters in Skanderborg and in Vejle as well as in Liepajas in Latvia. The product portfolio includes home-use loudspeakers and multimedia solutions as well

as professional systems for recording studios—Dynaudio products can be found in more than 10,000 sound studios all round the world—as well as in automobile hi-fi systems, e.g. in Bugattis or Volkswagens.

These days, Dynaudio is part of a major electronics corporation with global operations. The Chinese company GoerTek, a high-tech consumer electronics

specialist, acquired a majority stake in 2014. Wilfried Ehrenholz, co-founder and sole owner of Dynaudio since 1994, remains on board as a minority stakeholder and continues to head up the strategic product and marketing management functions. According to sources within the company, “Dynaudio’s corporate philosophy of no-compromise quality, which has been ▶





applied for more than 35 years, and the Made in Denmark label” will continue to be an integral part of the company’s approach. GoerTek, which employs around 37,000 people, is one of the world’s largest manufacturers of acoustics products for smartphones and tablets. In view of product developments in the wireless sector, the acquisition of Dynaudio is designed to pool the skills of both companies, given that GoerTek is an electro-acoustic product specialist. Right now everybody is talking about smart audio—i.e. mostly involving wireless-connectivity and smart hi-fi

systems for mobile players. The Focus XD range, launched in 2014, takes this fact into account. “Our Focus XD has been optimized to dovetail with digital playback systems,” says Hoffmann. The loudspeakers feature their own DSP and are easily actuated using digital cables. Energized Class-D modules take care of amplification. The smaller Xeo Series, which since its launch in 2012 has symbolized a young, digital lifestyle, is also energized and wireless—which is only an optional extra in the Focus Series. Here the amplifier is already on board, and besides wireless integration

is said to provide sound benefits. Smart Audio is therefore becoming an attribute of both practicality and sound reproduction quality in Dynaudio products. Hoffmann: “This means we are even nearer to our original objective of delivering music playback quality that is as undistorted and authentic as possible.” ■

www.dynaudio.de

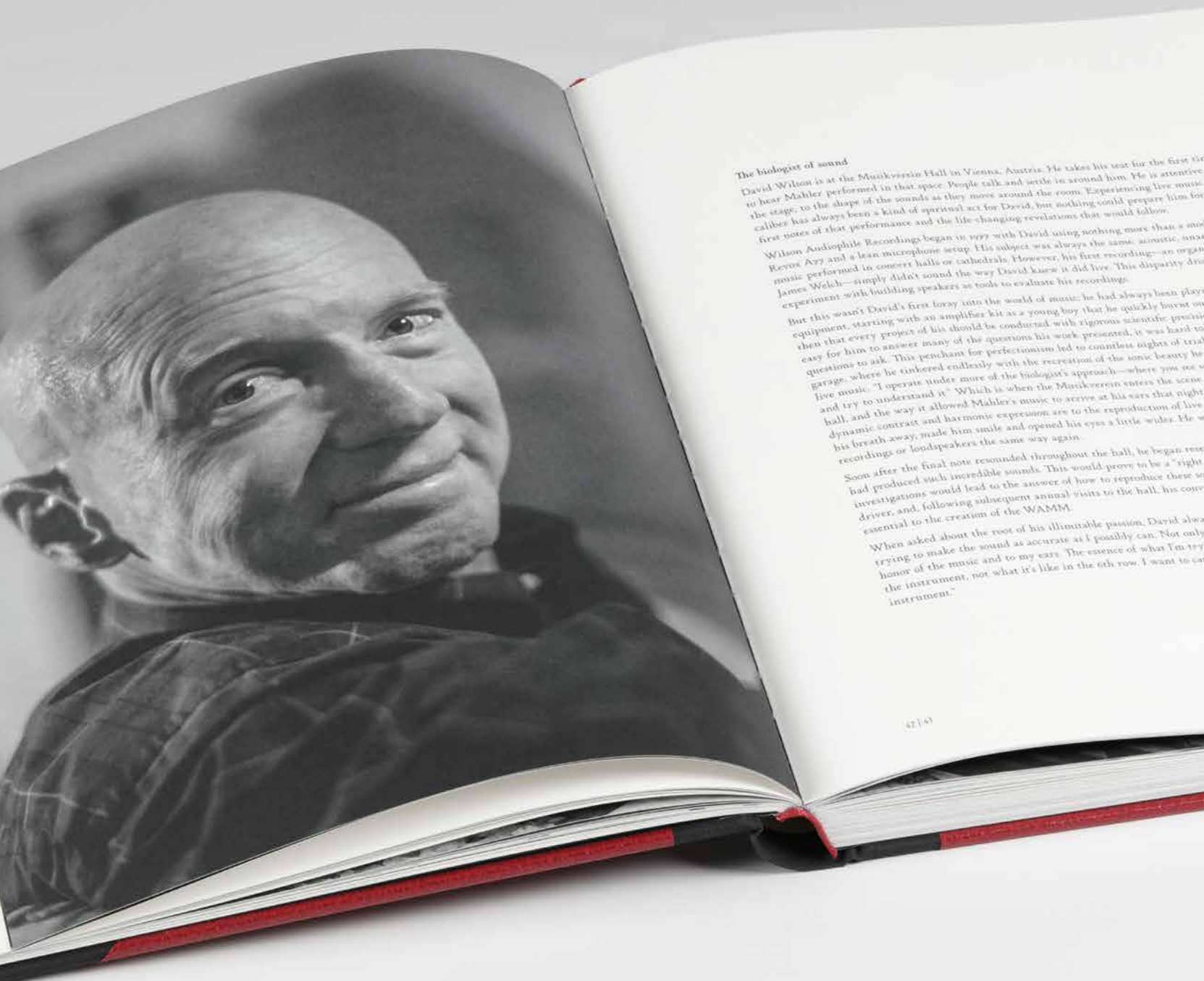
This is a reprint from “WHO IS WHO IN HIGH FIDELITY”—Vol. 1, the compendium from FIDELITY MEDIA GMBH, to highlight the heavyweights as well as the little guys who still pack quite a punch, and to introduce you to the people behind, to bring some order to the ever-expanding high-end business. Ask for your copy.



Tribute to Dave A. Wilson and his work: how it all began.

THE WILSON AUDIO LIVRE D'ART

By Ingo Schulz Photography: Ingo Schulz.



The biologist of sound

David Wilson is at the Musikverein Hall in Vienna, Austria. He takes his seat for the first time to hear Mahler performed in that space. People talk and settle in around him. He is attentive to the stage, to the shape of the sounds as they move around the room. Experiencing live music of this caliber has always been a kind of spiritual act for David, but nothing could prepare him for the first notes of that performance and the life-changing revelations that would follow.

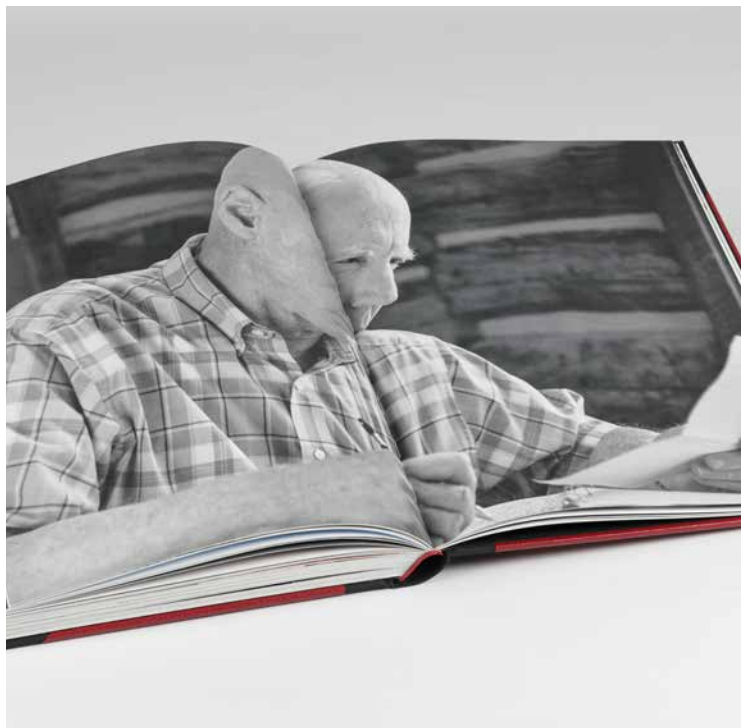
Wilson Audiophile Recordings began in 1977 with David using nothing more than a monophonic A77 and a lean microphone setup. His subject was always the same: acoustic, unadorned music performed in concert halls or cathedrals. However, his first recording—an organ by James Welch—simply didn't sound the way David knew it did live. This disparity drove him to experiment with building speakers as tools to evaluate his recordings.

But this wasn't David's first foray into the world of music: he had always been playing with equipment, starting with an amplifier kit as a young boy that he quickly burnt out. Then, then that every project of his should be conducted with rigorous scientific precision. It was hard to say for him to answer many of the questions his work presented, it was hard to ask. This penchant for perfectionism led to countless nights of trial and error in his garage, where he tinkered endlessly with the recreation of the sonic beauty he experienced live music. "I operate under more of the biologist's approach—where you see a problem and try to understand it." Which is when the Musikverein enters the scene. The hall, and the way it allowed Mahler's music to arrive at his ears that night, the dynamic contrast and harmonic expression are to the reproduction of live music. His breath away, made him smile and opened his eyes a little wider. He was recording or loudspeakers the same way again.

Soon after the final note resounded throughout the hall, he began to realize that he had produced such incredible sounds. This would prove to be a "right" answer. His investigations would lead to the answer of how to reproduce these sounds. A driver, and, following subsequent annual visits to the hall, his conviction that this was essential to the creation of the WAMM.

When asked about the roots of his insatiable passion, David always says the same thing: "I'm trying to make the sound as accurate as I possibly can. Not only for my ears, but for the honor of the music and to my ears. The essence of what I'm trying to do is to make the instrument, not what it's like in the 6th row. I want to capture the instrument."

42 | 43



December 2017: FIDELITY once again was out and about in search of quality sound. This time we visited Wilson Audio Specialties Inc. in Provo, Utah. The reason for our trip was the new Wilson Audio WAMM Master Chronosonic, a genuine “hyper-loudspeaker,” perhaps even the only real “hyper-loudspeaker” on the market at all. We wanted to get our own feel for this loudspeaker’s sound output and qualities, and in particular take a look behind the scenes and watch this loudspeaker being handcrafted. What was set out to be a fascinating report turn out differently than we expected.

Just a year before there had been a change of generation at the top of the company: David A. Wilson, at the time aged 72, transferred the management of his company in November 2016 to his son Daryl. Since then,

Daryl Conrad Wilson has run Wilson Audio Specialties’ business as President and CEO. David stepped back from day-to-day business, but stayed on as Chairman of the company and increasingly devoted his efforts to working in the design team.

November 9, 2017, would turn out to be the day everything changed and would never be the same again. David received the devastating news that he had been diagnosed with bone cancer. The doctors predicted that he had a maximum of six months to live.

When we pitched up in Provo in December 2017, we met a visibly weakened David Wilson, who welcomed us with great discipline and willpower. His wife Sheryl Lee told us afterwards that Dave felt it was very ▶



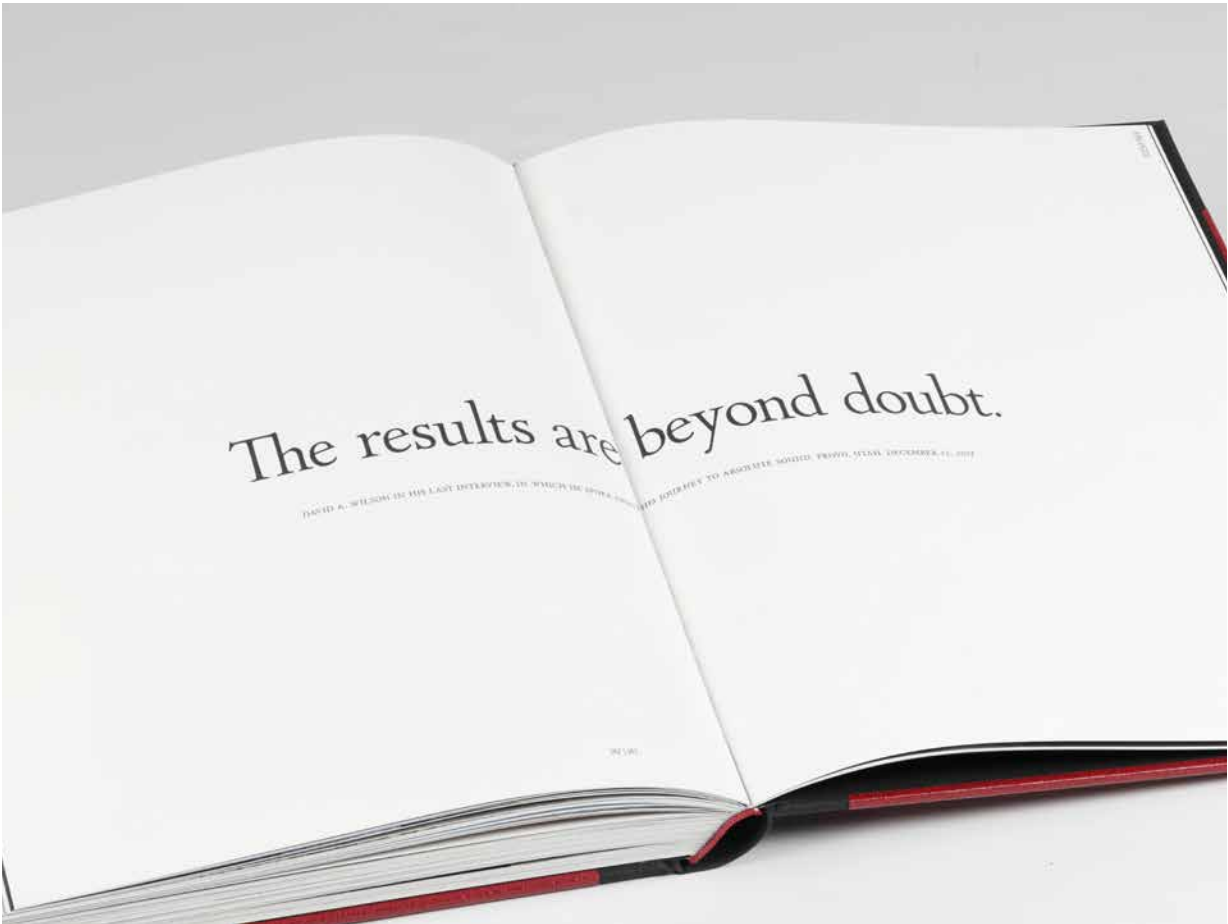


important to meet with us and to answer questions about the WAMM Master Chronosonic. Our conversation lasted just under one hour and really exhausted Dave. That was on December 12, 2017, and it was to be his last interview.

The deeply emotional impressions gained from this final interview as well as the many phone calls and emails that followed spawned the idea of making a lot more of the material gathered than “just” a report. It was to be a book. A livre or objet d’art. A tribute to David A. Wilson. A book about Dave and his masterpieces: the WAMM and WAMM Master Chronosonic. And it was to be a book that could be understood throughout the world.

The FIDELITY editorial team began a long, extended period of brainstorming. How can you get to know a person like David Wilson better? How do you do justice to him and his oeuvre? An obvious approach would have been a chronological appraisal of key events in his life. We decided against that.

Concerning ourselves with his character, and gaining insights through long and intensive conversations with his wife Sheryl Lee, his son Daryl and his employees and friends, resulted in us taking a different approach. Terms gradually emerged from these conversations that could be matched like mottoes or headlines to certain aspects and phases of his life. Terms that were obviously of major importance to him and ►





everything that he encountered in his life. They would help to make his personality and the motivation for accomplishing what he did more accessible. In the end the myriad possible headings were condensed down to seven. These seven headings distilled from everything that happened in his life were then used as the seven chapters of the book. They are: Time, Spirit, Passion, Silence, Ambition, Beauty and Truth. Now all that needed to be done was to breathe life into the total of seven chapters. A task that turned out to be a lot more difficult and protracted than we thought. From the exclusive interviews and the many personal conversations as well as from official video messages we gradually extracted countless statements, sorted and checked them, matched them to the chapters and then started from scratch all over again—but we realized: This was the right approach! One chapter after the next gradually took shape in our mind's eye.

Another of our priorities was to ensure that the reader could open the book anywhere and start reading, without having to be familiar with

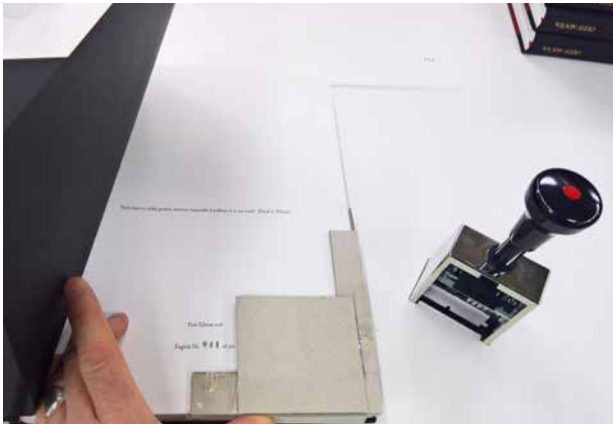
what had been written previously. You don't have to read the book from cover to cover. You can pick it up and dive into it time and again. The text and imagery on every page are designed to captivate the reader and inspire them to continue reading. For this reason, nearly all the photos used are new and have not been previously published. They reveal entirely new insights, present the textual content from a different perspective and sometimes just make you want to smile.

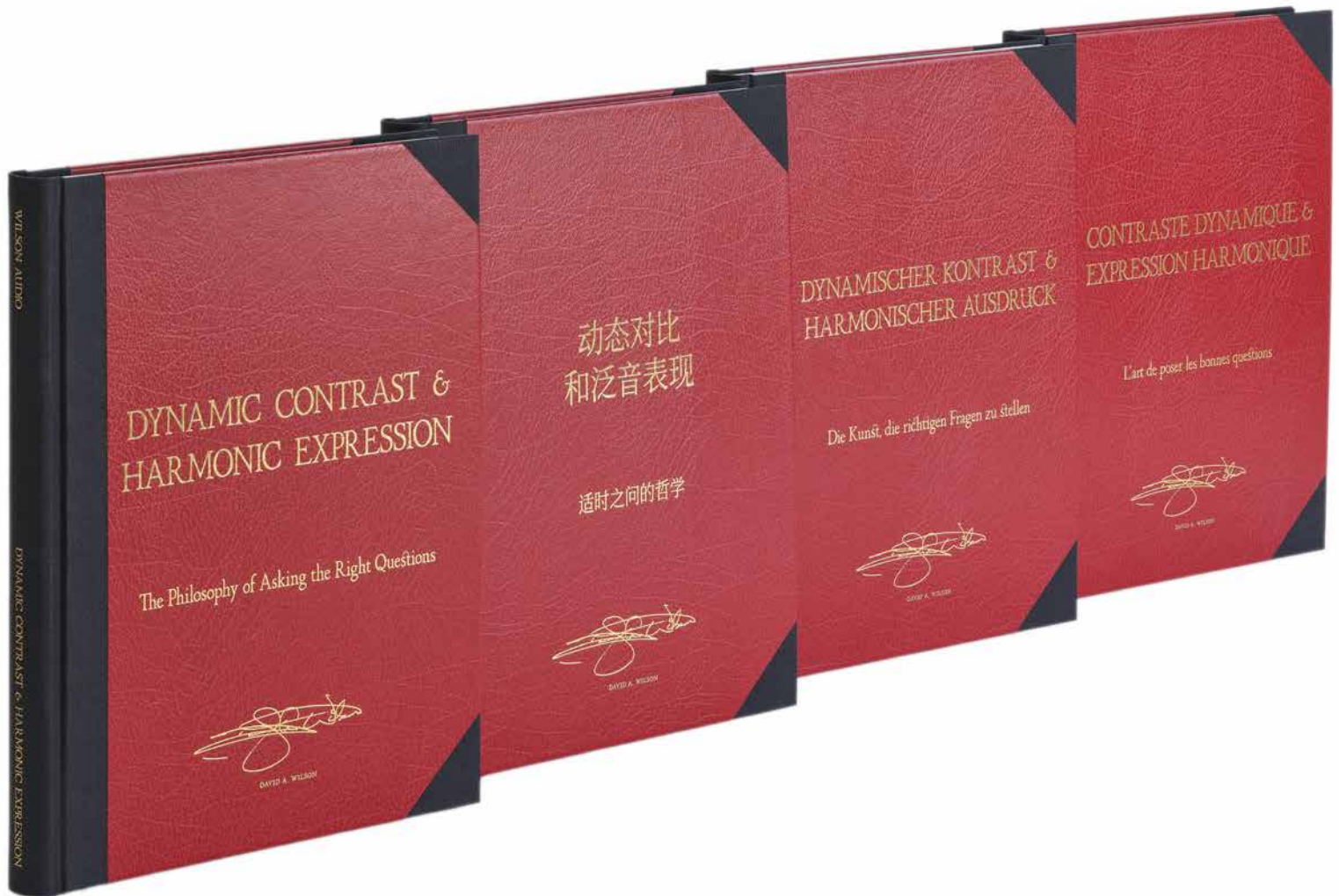
In order to make this book accessible to an international readership, we partnered with Leinhäuser Language Services, a multilingual content agency. They created the different language versions of the book in close cooperation with a globally networked team of language experts. The first print run of the book is available in four languages: English, German, Chinese and French. Other languages are in the works.

On May 26, 2018, five months after the last interview, David A. Wilson passed away at his home in Provo surrounded by his family. He didn't ►



EVERY SINGLE BOOK UNDERGOES A QUALITY-CONTROL CHECK. IT IS THEN GIVEN AN INDIVIDUAL NUMBER AND MANUALLY PAGINATED.





get to see the finished book. Just two days before he died, he said he was happy. In response to our question during the interview whether in retrospect he would have done anything differently during his lifetime, he said: “I would do it the same way again.”

The loudspeaker that started it all was the WAMM Series 1 from 1981. The crowning glory of Dave Wilson’s lifetime achievement was again a WAMM, the WAMM Master Chronosonic, dated 2017. He used it to make the ultimate statement, and it brings the life of an exceptional man who turned his vision of perfect music reproduction into reality full circle. Anybody who has ever listened to the WAMM Master Chronosonic will be thoroughly impressed by how close Dave Wilson actually came to achieving this objective in the end. ■

LIVRE D'ART: Dynamic Contrast & Harmonic Expression | **or:** The Art of Asking the Right Questions. | **published by:** FIDELITY Media GmbH | **First Edition:** 2018 | **Execution:** 192 pages, uncoated art paper, linen binding with leather covering, gold embossing and bookmark ribbon | **Price per edition:** 199 € plus shipping | **All four editions (English, German, French, Chinese) as a set:** 700 € plus shipping

Artful pickup

A low internal resistance multiplied by a high output voltage results in a clean, transparent and dynamic sound. Based on this simple sounding, but not really easy to realize formula, Air Tight designed the special edition of its popular PC-1 pickup. The limited edition will be especially exclusive for the first 40 customers: The Japanese manufacturer delivers them in a wooden box decorated with a Sippoyaki work of art.

www.airtight-am.net

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BROWSER Nº 02



BROWSER № 02

Helix current

In-akustik completes its AIR-Helix series: With the recently introduced Reference AC-2404 AIR power cable, an energy conductor is now also available that deliberately performs without any superfluous shielding. Instead, air serves as the actual insulator. To prevent the wires inside the cable from getting in each other's way, they are guided helically over small plastic plates—which also explains the name of the series. The power cable is available from 1000 Euro in all common power plug shapes (also US).

www.in-akustik.de/en/

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BROWSER

№ 02



McPower

And yet another novelty with which McIntosh breaks new ground on the occasion of their seventieth anniversary: With the MPC500, the Americans have just announced a power filter that not only cleans the power supply line, but also protects valuable equipment from harmful overvoltages and lightning strikes.

The new component (price: ca. 2,500 US \$) is already on the market.

www.mcintoshlabs.com

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BROWSER

№ 02

News from Ultrasone

At the Munich HIGH END show, German headphone specialist Ultrasone will be presenting three new models in the popular "Edition" series. The Edition 8 EX, Edition 11 EX and Edition 15 Veritas are designed to offer an impressive spatial image and shine with a transparent, airy sound. They are supplied in a stylish wooden case containing various strips and other accessories. The lower end of the price range is complemented by the new Performance 880.

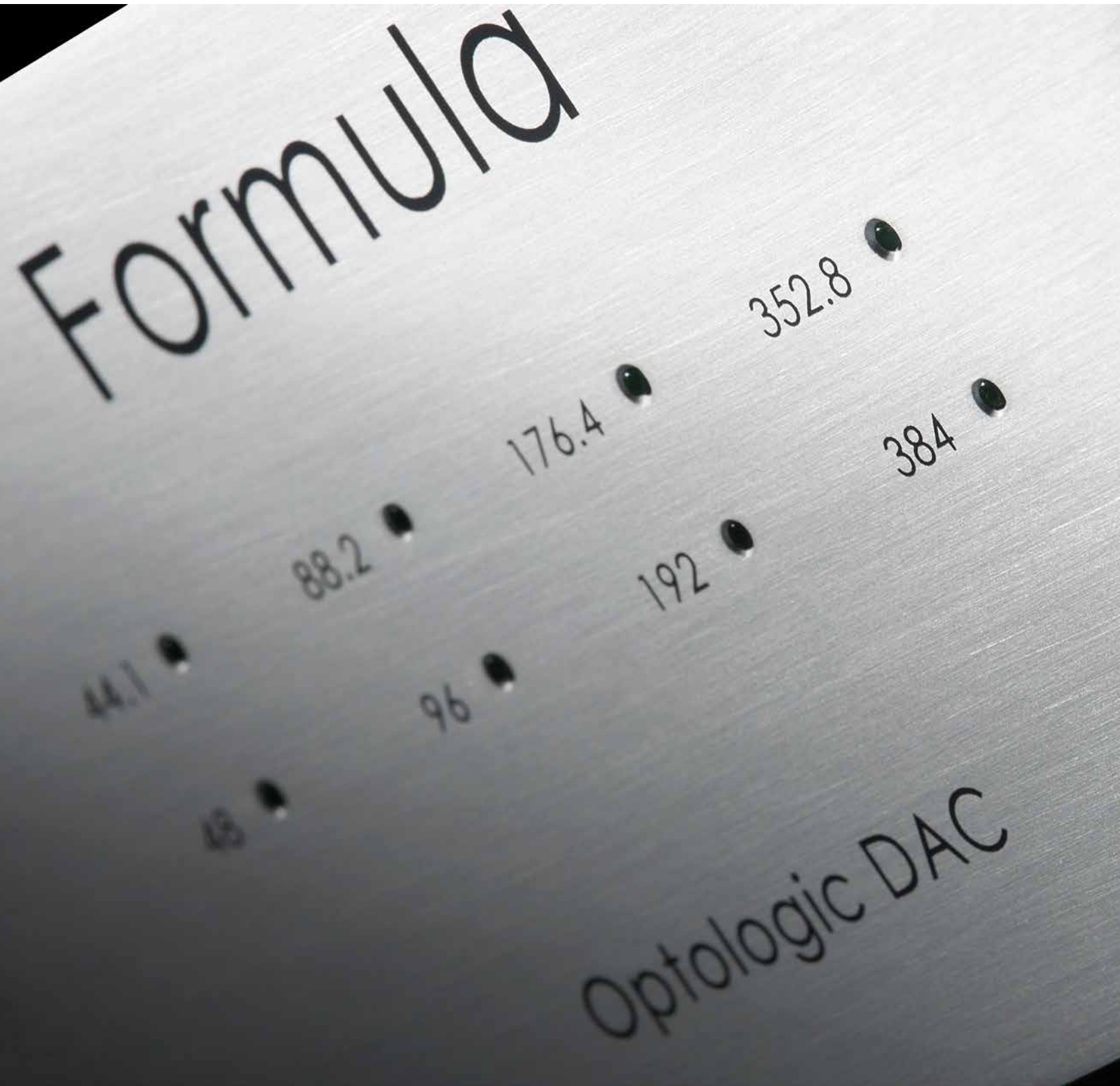
www.ultrasone.com

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DO BITS HAVE FEELINGS?
TRUST ME. AS SOON AS
YOU LISTEN TO MUSIC
WITH ACOUSTIC QUALITY'S
TOP DAC, YOU WILL
SWEAR THAT THEY DO.





Aqua Acoustic Quality Formula xHD DAC

LAD- DER TO HEAV- EN

By Michael Vrzal. Photography: Manufacturer









2010

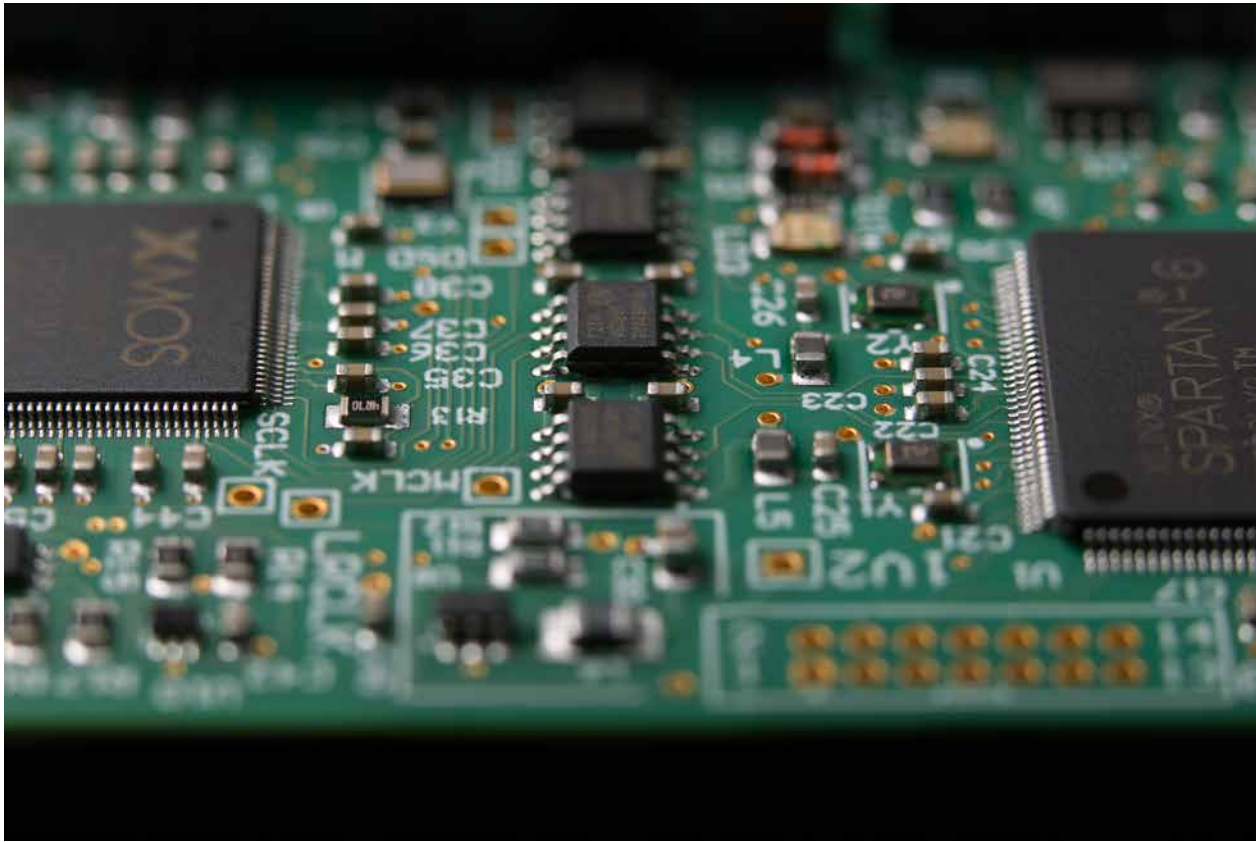
was the perfect time to set up a small-scale manufacturing company specializing in elaborate D/A converters featuring multibit technology. Wasn't it? Four years earlier, Spotify was founded. Four years later, Tidal set the bar seriously high in terms of sound quality. Multibit converters, also referred to as R2R DACs or ladder DACs, were increasingly causing a sensation and the process involved produced, in many people's eyes, superior sound quality compared to the delta-sigma principle and the 1-bit principle. So Cristian Anelli clearly had a really good nose (or should I say 'ear'?) for things when he founded his company Acoustic Quality, or Aqua for short, in Milan.

Fast forward nine years and the Aqua homepage features four products: a CD transport and three DACs. The features and specs of all the devices are impressive but two things stand out straightaway: the low-key, pared-back physical

appearance and the update policy which ensures that the devices retain their value. Obsolescence is practically an inherent part of all DACs which is why Aqua's software and hardware update options deserve some serious kudos. So, on to multibit, or R2R or ladder. All these terms describe the same basic principle. The digital signal is fed in to a network of resistors, the topology of which is similar to that of a ladder, if you use your imagination a little bit. By means of the individual response of two resistance values (a single ("R") and a double ("2R")), every bit plays its part in the formation of an analog signal voltage.

The elegance of such a converter lies in its simplistic design and straightforward scalability. An R2R network can indeed be in a chip, but it can also be soldered together just as well from individual resistors. 24 or even 32-bit resolution is easily achievable by simply adapting the "ladder length". R2R DACs without any oversampling or downstream digital filters are also rumored to boast a particularly high degree of musicality as, unlike with delta-sigma DACs, you don't have any filter algorithms leaving their inevitable acoustic traces behind. That's what they say anyway. In my opinion, this is ►





an overly sweeping judgment as it downplays the part played by the complex digital-analog peripheral equipment in the overall result.

Aqua's current top-of-the-range DAC goes by the name of Formula xHD. The abbreviation "xHD", which denotes the converter's 2017 update, is proof that the company's upgrade policy is alive and kicking. It now enables users to play PCM files up to a sampling frequency of 768 kHz as well as the DSD format DSD256 (Quad DSD). In addition to the new circuit board required, the update also includes new firmware for the controller chip of the R2R resistor network, which is designed to improve sound quality.

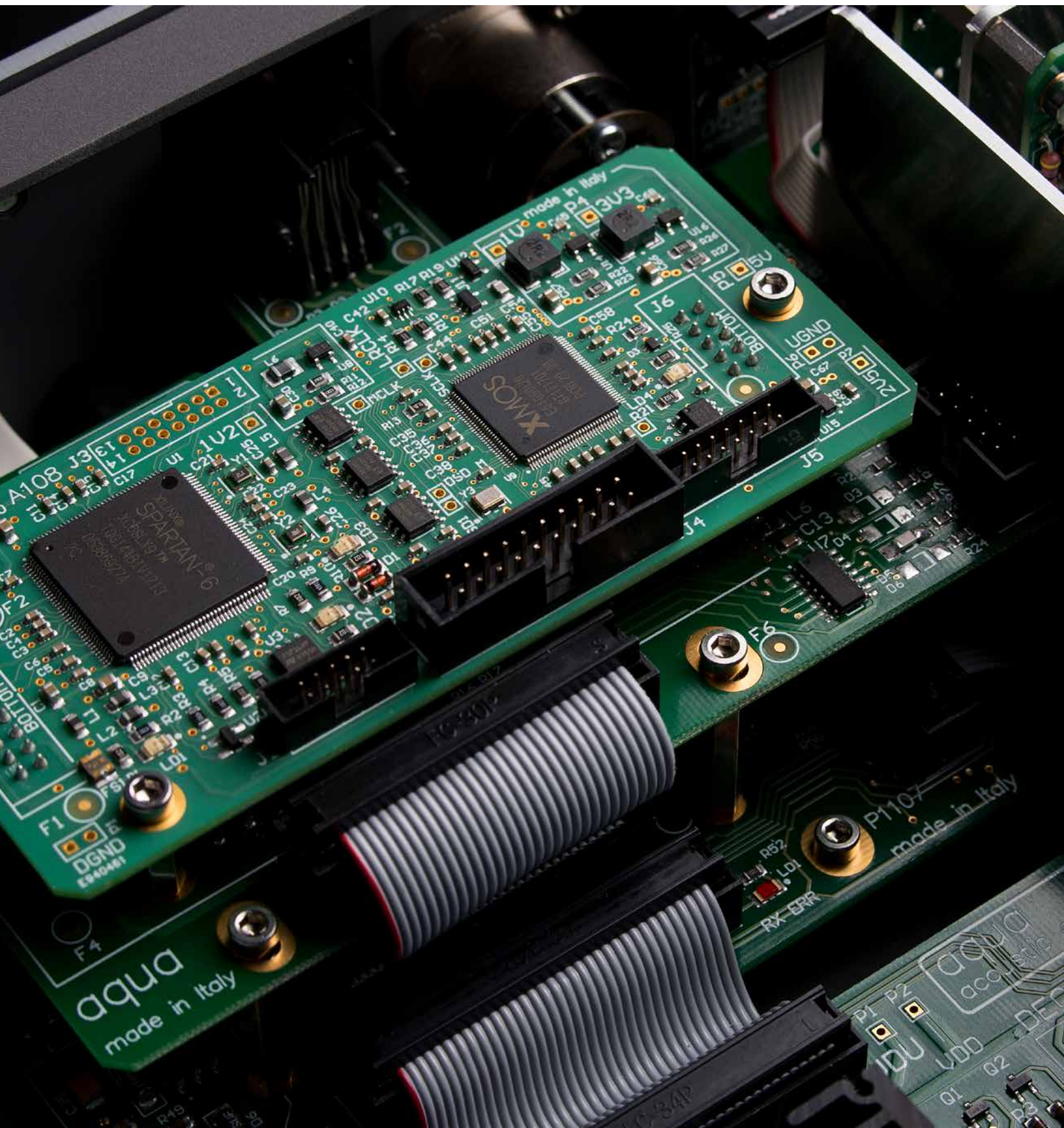
The Formula xHD also goes by another nickname: Optologic DAC. "Optologic", which is actually a fancy made-up word, describes the company's own in-house interpretation of ladder DAC technology, which was introduced with the top-of-the-range Formula model and is now also available in the form of an upgrade for the lower-level converter called La Scala. The Formula features four banks with resistors for 24-bit resolution (per bank). The specially programmed software, which is stored in an FPGA chip, carries out the control. Aqua's pièce de résistance in the overall design is the galvanic isolation of the FPGA and digital peripheral equipment from the resistors already associated with the

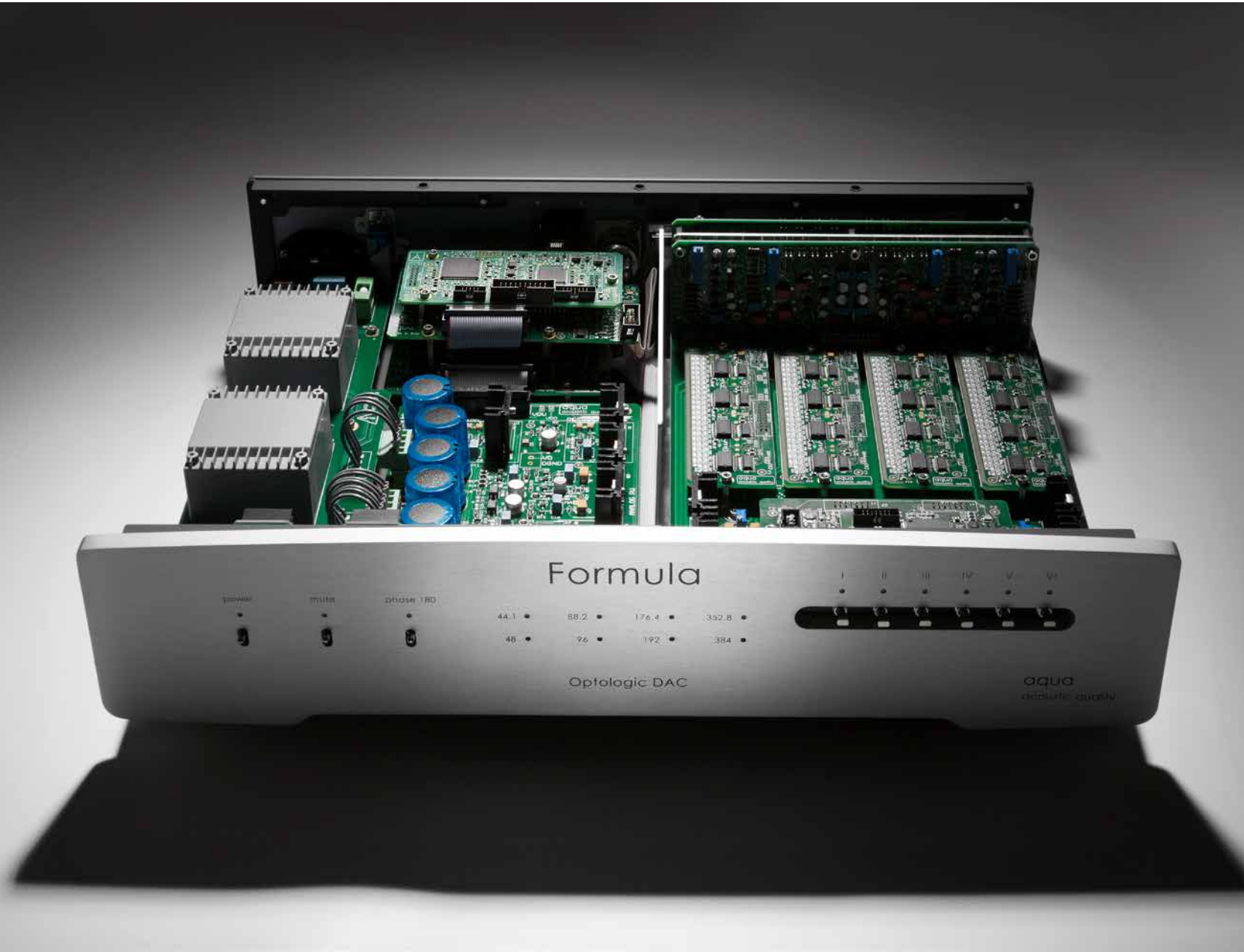
world of analog. This should result in the ground plane being free from any kind of interference and in perfect symmetry in the converter section. The aim is optimum tonal accuracy and naturalness.

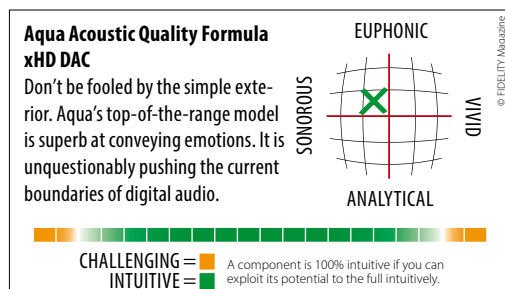
The power supplies for the digital and analog parts are of course kept separate and components were chosen not just based on sound quality but also long-term stability and reliability. The signal path is direct-coupled and completely capacitor-free.

The Aqua Formula xHD boasts inputs and outputs in accordance with all common standards. One of its stand-out features is a digital input exclusively for connecting it to the company's very own CD drive called La Diva. This interface, which they have named "AQlink PRO", communicates via I2S protocol—undoubtedly the most direct and most jitter-free path for digital music signals. In addition, depending on customers' wishes, one of the six available digital inputs can be equipped, for example, with an optical interface, which is not one of the device's standard inputs.

When it comes to features and ease of operation, the Italian high-end, luxury DAC does have the odd trick up its sleeve: the phase switch is definitely useful and the mute button is a nice touch if you don't have one on your amplifier (which you really ought to). Eight little LEDs gently light up ►







ACCOMPANYING EQUIPMENT

Turntable: Bauer Audio dps 3 | **Tonearm:** Bauer Audio Tonarm | **Cartridge:** Lyra Kleos | **Phono preamplifier:** Bauer Audio Phono | **CD players:** Electrocompaniet EMC-1 UP, Meridian 508/24 | **Integrated amplifier:** Silbatone JI-300B Mk III | **Preamplifiers:** Naim Audio NAC 202, NAPSC, Silvercore Daland | **Power amplifier:** Naim Audio NAP 200 | **Cables:** Naim Audio, HMS, Fadel Art, Chord, Music Line | **Accessories:** DIY rack, granite bases

to signal the receivable PCM sample frequencies ranging from 44.1 to 384 kHz—I was unable to test what happens when 768 kHz is reached. The inputs are selected using high-quality toggle switches and would be easier to identify with plain text but the Roman numerals used do look pretty smart, it has to be said. A remote control is available as an optional extra.

What can you expect from a D/A converter of this caliber? What does it have to deliver in order to warrant such a hefty price tag? The vision that Aqua strives to achieve is that of “analog sound”. More specifically, it aims for sound quality without any compression effects, comparable to that of studio tape recorders.

The point at which the Formula xHD really “had” me was actually a very analog one, i.e. one which conjured up the kinds of emotions you experience at live concerts. I was listening to the CD of the live album *Eine Nacht in Berlin* by Max Raabe and the Palast Orchester. Whenever I listen to this recording, it is clear that singer and ensemble are one here. They breath in unison and casually knock the performance out of the park. I even love listening to this album on the Tivoli radio/music system. However, the Formula DAC opened up a whole new dimension for me: a hardly discernible crescendo by the musicians, but one which was immensely enthralling precisely on account of its subtlety, culminating in a pivotal expression, a mood-changing harmony. It's almost impossible to describe but there was suddenly this tension in the air that I had never picked up on before and a yearning in Max Raabe's voice that pulled directly at my heartstrings. And the Aqua converter managed to extract it all from the CD's 16-bit. Stunning!

The Formula xHD really covers all the bases. The idea of trudging through the frequency bands to issue a seal of approval for each one seemed downright disrespectful to me. It nonchalantly ticks off the items on the technical specifications sheet relating to dynamics, powerful bass and attention to detail with a shrug of the shoulders. It much prefers continually directing your attention to things like the vividness and real presence of a melodic singing voice, or the absolutely perfect acoustic reproduction of a scene involving “a slightly overly heavily ‘voiced’ concert grand piano in a recording room not completely soundproofed from the outside world”, which you can imagine—like an IMAX 3D for the ears.

The enchanting naturalness is surely what will resonate for the longest in my long-term auditory memory, long after the test device has left my listening room. The Aqua Formula xHD really taught me a lot. And this experience will have implications. Acoustic Quality also sells more affordable products. I want the master-tape feeling back! ■

D/A Converter | Aqua Acoustic Quality Formula xHD DAC

Functional principle: Fully balanced, modular designed D/A converter based on the R2R principle | **Digital inputs:** RJ45 AQlink (I2S), BNC (S/PDIF) 75 Ω, RCA (S/PDIF) 75 Ω, AES/EBU balanced 110 Ω, USB | **Optional digital inputs:** RCA coax (S/PDIF) 75 Ω, AES/EBU balanced 110 Ω, ST optical, TOSLINK optical | **Analog outputs:** 1 x Line Out (XLR), 1 x Line Out (RCA) | **Digital formats:** PCM 44.1 kHz up to 768 kHz, max. 24 bit, DSD up to DSD256 | **Special features:** Modular design to enable updates, one digital input can be equipped as desired, optional IR remote control | **Finish:** Brushed aluminum silver, housing Nextel gray | **Dimensions (W/H/D):** 45/10/37 cm | **Weight:** 9 kg | **Warranty period:** 5 years | **Price:** €13,670

Acoustic Quality | info@aquahifi.com | www.aquahifi.com



...and now for something completely different...



American Corner—Axpona 2019

SPACIOUS

By Danny Kaey. Photography: Ingo Schulz

Hard to believe that we are well into 2019s HiFi show circus with this year's Axpona kicking off the starting bells at Schaumburg's Renaissance hotel and convention center. Even as last year was my first formal year covering the show, Axpona has in fact been on a roll these past few years. Recalling the earlier days of the show, I was often told "must visit" "need to see" "A+", all arguments taken at their face value meant only one thing: this is a happening show. As such, 2019 really proved no different from the previous year: a hustling, bustling, dare I say quintessential show for all audio manufacturers and audio mavens alike. The venue, as they say, is spot on, about as perfect a hotel venue as I've ever seen for a HiFi show. Spacious, open, with lots of meeting spaces, coffee

and refreshment shops strategically placed throughout the hallways on the lower lobby all helped create a warm and inviting space to show off your latest wares, conduct business and socialize.

Over 200 rooms stretched across most of the hotel's floors plus far larger and more splurging ballrooms stretching from the hotel to the convention center offered just about anything your HiFi heart's desired. From small time to big time, the show really presented itself well and on point as America's de facto premier HiFi show. In fact, I would say that Axpona could well be on its way to offering up a genuine, made in USA alternative for the mighty Munich show taking place barely a month later across the big pond. ▶



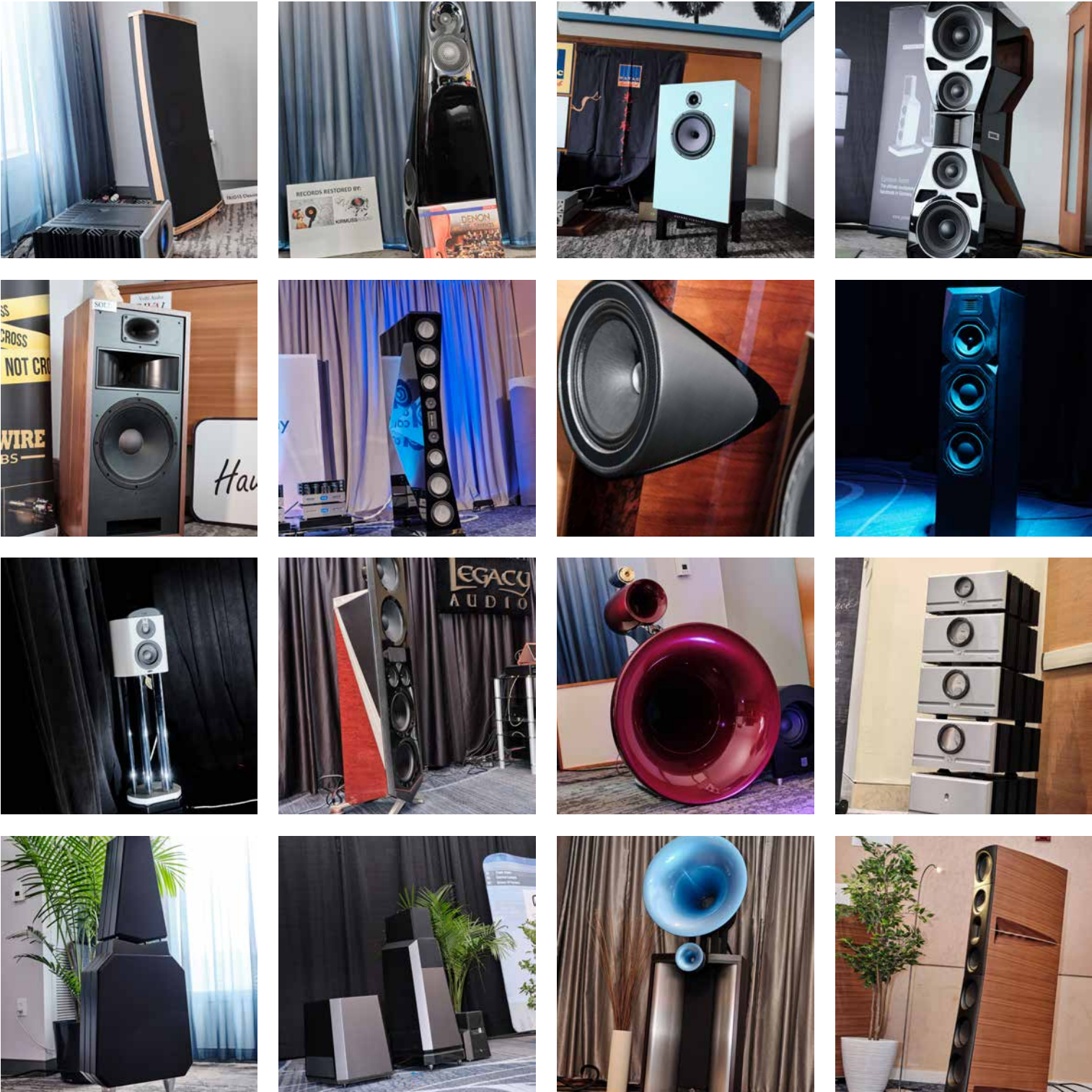


The only issue marring the event's overall tranquility, is really the logistical nightmare for companies planning to attend both shows: taking apart large showrooms, shipping equipment to and from Axpona, only to turn it all back around and ship your precious HiFi to Europe is a daunting task, no matter the logistical expertise available in today's global business environment.

But back to Axpona. My focus this year was more video coverage, which proved far more challenging than first anticipated. Armed with my iPhone Xs, a Moment anamorphic lens and a mini-pod, I was a walking one-man show, attempting to capture different angles, views and other interesting bits n' bobs as I visited rooms. That said, I simply ran out of time and really covered only a handful

of sonic collections, though I managed to butt my head into many more rooms for quick listening sessions, conversation and other such pleasantries. Leaving photobombs and general photography to Ingo Schulz, by day 3 of the show, I thusly had assembled a quick list of who's who.

In no particular order, PS Audio was on hand to show off their all new AN-3 loudspeakers, though still in pre-production stage. Delightful, open, airy and generally speaking fantastic sounding, AN-3 ought to offer a solid pair of speakers for the \$10-15k projected price range. PS Audio also soft launched their all new, state of the art, assault on all things holy in digital, Obsidian double-box DAC, which Ted Smith of PS Audio claims was developed ▶





without any financial or production shackles. Rumored to sell for around \$25k, this definitely ought to be an interesting design to look out for. Bending Wave USA, Göbel audio's US distributor had a fantastic showing, with a full set of CH Precision components, an Air Force One deck and Göbel's Divin Noblesse reference speaker system. Unlike their Epoque series of speakers, built for ultimate retrieval of detail and nuance, Göbel's Divin series is more of a musically oriented speaker design, built for volume, density and powerhouse sound. Having had the opportunity to connect with Oliver Göbel during a vivid 1:1 conversation, it appears that his company is on to something, as both speaker lines are able to peacefully coexist and deliver the same Göbel quality to different parts of the audio spectrum. The sound I heard at the show, in a room that wasn't optimal with large glass windows stretching the

far side of the left channel, was none the less superb, full of power, energy and plenty of detail. With the CH amplifier barely going past an indicated 60w of output power, these speakers filled a rather large room quite nicely with plenty of great music courtesy of Qobuz and analog.

Next, I played DJ at my "house" sound friends, EINSTEIN, who now—finally—have a US distributor and ambassador, Fidelis AV. In combination with Fidelis AV's newly launched Stenheim Alumine 3 speakers, the sound of the all EINSTEIN system was familiar, in part because it is my reference gear at home and because EINSTEIN always manage to squeeze optimal performance from generally questionable showroom conditions. Dynamic, explosive and otherwise quite musical, the system proved a definite ►



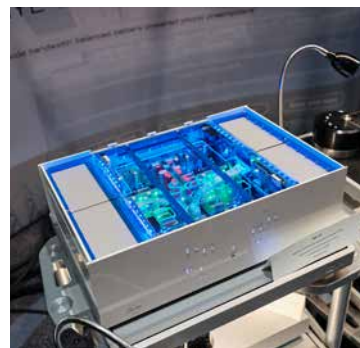
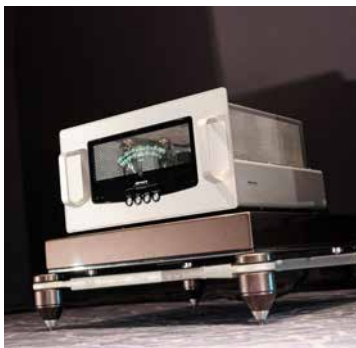
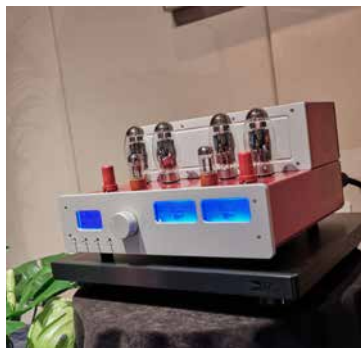


highlight of the show. As a bonus, Walter Swanbon, proprietor of Fidelis, managed to get not only Chad Kassem of Acoustic Sounds to play original vs. reissue comparisons, but also fellow scribe and vinyl king Michael Fremer. The ongoing, long standing joke with both is that they always end-up costing me more money than I was expecting to spend, firstly with Chad's incredible all-analog reissues, second, with Fremer's genuine great taste in music.

A few rooms over and down, I visited Playback Designs, where, with help from Verity speakers, Andreas Koch managed to get fantastic sound from his new Dream series DAC/CD/SACD/Streamer combo, the MPS-8. Having purchased one myself at the beginning of the year, I am obviously quite smitten with the sound. Andreas, no stranger to digital, has indeed managed to squeeze out even more performance from this latest Dream series, a remarkable feat given that his previous MPS-5 was the de facto reigning king of DSD conversion for many years. Here, Andreas played various high-quality DSD, double and quad DSD recordings which, with help of the Verity speaker system sounded very natural, open and generally lifelike. Next up was a visit to Bill Voss, Technics USA's

one-man show master. It's no secret that Technics is on a roll and in fact has had a meteoric rise back to the top of HiFi. Starting with the SL-1200G and GR turntable models some years back, followed up with the SL-1000R and SP-10R reference level decks and most recently the SL-1500C and SL-1200MK7 models, it's definitely vinyl revival time at Technics and for good reason. Each of the models are ground up new designs, with only the looks resembling decks from their success of decades past. Running a pair of Harbeth speakers, the Technics room sounded full, rich and very musical indeed. No matter the source, though preferably analog, Bill and team did a fine job and will no doubt make yet another splash at Axpona 2020.

Elsewhere at Axpona, I ran into Nate of Acoustic Sounds, who—for years—has been one of my most trusted curators for all things vinyl. "I have a surprise for you" was the cryptic comment he said in passing, urging me to add another quick pitstop at the Acoustic Sounds booth. Much to my surprise indeed, Nate handed me a copy of Acoustic Sounds long awaited first UHQR title, awesome Jimi Hendrix' Axis: Bold As Love. Each UHQR title is hand ▶





pressed (!) on clear vinyl, based on a formula Acoustic Sounds has been working on for some time. The packaging—no doubt drawing comparisons to MoFi’s famed 1-step series—is truly luxe and first rate premium, in my opinion edging out the MoFi series by a few tenth’s of seconds in racing terms. Having used that title in various rooms, the results were quite positively astounding and drawing many more questions than I was prepared to answer or for that matter even knew how to answer. It would appear that Chad Kassem has yet another winner on hand with this UHQR series—can’t wait to see and hear what’s coming next. Back from a multi-year stint in Japan, Chris Sommovigo, pal and all-out audio maven, was offering up several cues as to his next projects with his company, Black Cat Cables. Chris, no stranger to HiFi, courtesy of several past and rather prominent endeavors (former US distributor for Continuum and many more), has steadily made Black Cat Cable his one and true love. Original design geometries, all handmade, have quickly enabled a sort of “black” market for his wares. For true cognoscenti, his cables deliver the goods, no others will do. Clever as he is devilishly full of wit, for Axpona, he up-ended all competitors

with a neat little trick. A custom made, heavy luxe felt record tote, with the Black Cat Cable logo prominently displayed on one side, caught the eyes of many an attendee. I can personally attest that I must have been asked a good fifty times where one may obtain this “gorgeous” looking record tote. Clever marketing indeed.

In a nutshell, Axpona 2019 was rather much like Axpona the year prior. Extremely well organized, professionally run, it is de facto the high-end HiFi show for the US market, dare I say, “our” version of Munich, minus the Bratwurst, Kartoffel, Bier and Schweinshax’n. That said, one can only assume that Axpona 2020, will be better still, perhaps with a bit more of this and less of that. People make the show and here Axpona delivered in spades. Personally, what I would like to see a bit more of is a clearer distinction between Mid-fi and HiFi. Which brings us back to square one that I so often discuss: what exactly is HiFi these days and who is it for? No doubt questions to ponder. To everyone who made Axpona 2019 possible: hats off—great job. Next stop? THE Show, Long Beach, California in early June. Let the races begin! ■

AUDIOQUEST ANTI-STATIC RECORD BRUSH

By Harald Wittig. Photography: Harald Wittig, Ingo Schulz

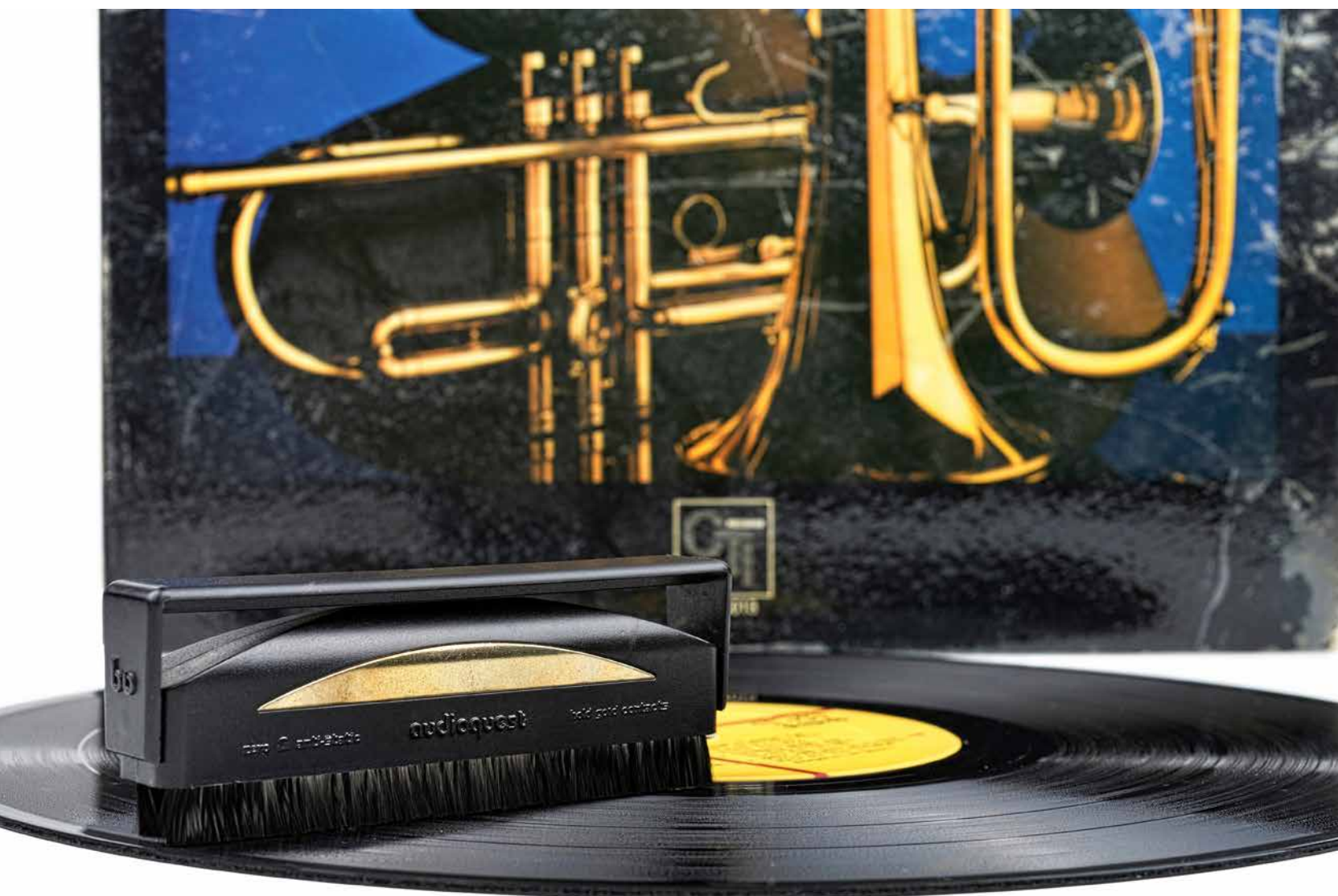


What makes the “Record Brush” so effectively anti-static is its gold-colored handle coating: It makes optimum contact with the user and transforms them into an earthing terminal. So always remember to take off your shoes before you clean a record.



AudioQuest’s thinker-in-chief William E. Low has rendered sterling service to the cause of melodiousness with the aid of a number of products. But an unprepossessing accessory of all things is in fact one of the closet stars of the product portfolio. The “Record Brush,” a carbon-fiber brush modeled on the legendary Decca brush has been a bestseller for over 35 years now. Yet designers are restless souls, which is why the “Anti-Static Record Brush,” an enhancement of the original, has been available since 2018 and priced at around 20 Euros. AudioQuest attached great importance on the new model to the conductivity of the carbon fibers and the handle detail, which shimmers in an elegant shade of gold. Compared with its older sibling and the large number of competitor brushes, the Anti-Static features a better electrical interface between fibers and handle detail. Furthermore, the handle detail’s innovative

coating—which AudioQuest refers to as gold contacts—ensures the required degree of conductivity to the user’s hand. It functions like that and ideally as “earthing” for the static electricity, which then—wipe and gone—vanishes from the record and eradicates that unpleasant crackling noise. The fact that the carbon fibers also remove the pickup head’s worst enemy—namely dust that drowns out great grooves—from the grooves in the record is a given. That’s what these brushes are there for and designed to do, which is why you will find one in most vinylophile households. Users of vastly cheaper carbon brushes pipe up straightaway and start doom-mongering about charlatanism and daylight robbery. Take it easy. To start with, one can objectively state that—even compared with the older AQ brush—a very much higher quantity of carbon fibrils form the material basis for these twin-row brushes. Furthermore, these fibers are elastic enough so as not to damage the sensitive record. ►



As they are also particularly fine, the Anti-Static can really tackle microscopic dust and dirt. A record that has been dusted and freed of the causes of crackling using this brush always sounds like new. But we want to listen to that ourselves. Let's do the practical test.

The new edition of legendary CTI production *First Light* by hard bop trumpet icon Freddie Hubbard is placed on the turntable, which starts moving, and I lower the Anti-Static—of course held correctly at the gold-colored grip points—carefully onto the vinyl. As always when using record brushes, you need to bear the following in mind: If the bristles start bending, you are applying too much pressure. That can lead very quickly to disimproving damage. So the Anti-Static feels comfortable when held loosely and gingerly between the tips of your fingers, and the LP is grateful for being handled so gently. But not too loosely, otherwise the brush

could fly off when being raised. So how does it perform? In a nutshell: very effectively. That's because the test LP was one of those crackling, bottom-of-the-barrel new buys, which just like the cheap imitation cover had made it one of my most disappointing purchases. I had actually preferred my 35-year-old original LP. Thanks to the Anti-Static, the LP no longer features that annoying crackling and now sounds much more nuanced and dynamic than before. The fact that the original is still the better choice is down to the DigitalMaster, and the AudioQuest brush can't change the lousy digitalized cover back into a wonderful analogue photo. At any rate, the Anti-Static Record Brush does a good job and is highly recommended, so that's why it's allowed to touch all my vinyl gems. ■

AudioQuest Anti-Static Record Brush | Carbon fiber record brush | Price: €19

www.audioquest.com



...and now for something completely different...

LITTLE RED CART

Part I



Covering normally refers to songs being performed by other artists, but actual album covers attract their share of impersonators, too. The covered cover: Is it a witty reference, respectful homage or parody? Or is there a deeper meaning behind it?

Not only did Frank Zappa record music by a historical namesake (s. FIDELITY print magazine No. 40), so too did jazz pianist Thelonious Monk. To kick off his 1957 album, *Monk's Music*, he arranged an old hymn composed by English organist William Henry Monk (1823–1889). “Abide With Me” is 54 seconds long and arranged for four wind instruments, although the rhythm section (including Thelonious Monk himself) takes a break. Despite this composition by another composer, the title of the album is correct. The record does actually contain just music by Monk—any Monk.

You just have to grasp the opportunity when it presents itself. When do you ever get four wind instrument players in one studio at the same time. For this session Monk insisted on having all of two special tenor saxophonists. One of them: Coleman Hawkins, a former mentor, in whose band Monk cut his first recordings in 1944. The other: John Coltrane, his most recent pupil, who had been fired by Miles Davis shortly beforehand—Monk had witnessed this. Hawk and Trane—two tenor saxophonists, who symbolized the past and the future. The one had his roots in the 1920s, in the pre-swing era—while the other was a pioneer of free jazz. Monk was the bridge—he was able to sound like a stride pianist as well as do the avant-garde proud. Coltrane called Monk a “music

architect of the first order”. He even learned new saxophone tricks, circular breathing and harmony techniques from the pianist. “Monk forced me to play a huge number of choruses around an ever-identical theme, in order to find new ideas.”

Monk's Music is a kind of an all-star session. “Well You Needn’t” (Coltrane is the first soloist), “Ruby My Dear” (a feature for Hawkins), “Off Minor” and “Epistrophy”—the tracks on the album were practically classics. Monk had already cut them during his first vinyl recordings in 1947/48. Only this time the themes had been specially arranged for the four wind instrument players (the most involved one : “Off Minor”), while the flow of the tracks makes you think of a relaxed jam session. The soloists are given space—and nobody is giving the others a hard time. A new composition by Monk only says hi right at the end: “Crepuscule With Nellie”, perhaps intended as a counterpart to the opening hymn. Monk’s wife Nellie at that time was in hospital, outcome uncertain; the composition was an appeal to fortune—and it helped. The first recording of the ballad only presents the theme, there is no solo. Even later on in this composition Monk never allowed any improvisation, because he was superstitious.



LITTLE RED CART

Part II

The producers often came up with the craziest ideas for Monk's album covers. Nothing appeared too bizarre to visually highlight what a most extraordinary genius and one-of-a-kind this Monk was. Monk in mirror image, Monk times five, Monk as a pilot or guerrilla fighter. For the cover of *Monk's Music* they wanted to put him in a monk's habit or in a tuxedo with a white tie. The pianist is said to have replied: "I would prefer to pose on my son's handcart, because that's where I sat when I recently had the urge to do some composing." You can't dream up a more bizarre motif. But: it's unlikely that Monk also wore sunglasses and a checkered cap when composing.

Four wind instruments—two woodwind and two brass—also feature on Ken Thomson's new album, *Sextet*. Whether this lineup was inspired by *Monk's Music* or whether Thomson was simply reminded of Monk's album at one time or another—it doesn't matter. At any rate, a modern jazz musician can't go wrong with a reference to the former architect of avant-garde jazz, even if it is only a cover motif reference. However, the way the little red cart is standing there all on its own on a white background, is hovering, is materializing is of course a little iconic. It reminds you of Warhol's Banana. Or of Warhol's Soup Can. Such references would dovetail with Ken Thomson. The man not only plays a mean punk jazz jug (in common parlance: alto saxophone), but is also at home on the

New Music and performance art scenes. He plays clarinet with the Bang On A Can All-Stars, writes for the American Composers Orchestra, and collaborates with eMusic composers.

The 42-year-old sometimes calls his style "21st Century Third Stream". On the album, *Sextet*, he and his five colleagues astound the listener with music that ranges between high-performance improvisation and the musical language of contemporary concert music. A fast and furious jazz drive features the ingeniously merged voices of the wind instrument players. Only seldom do you hear music on a jazz album that is of such complexity and that is so expertly played. But to let people access the album Thomson did then draw inspiration from *Monk's Music*. To parallel Monk's adaption of the English hymn "Abide With Me" he put a piece by György Ligeti at the beginning—and indeed as an arrangement for four wind instruments too. "Passacaglia Ungherese" in its original form was composed for the harpsichord. A musical miniature. A humorous exercise. Alienated to a wind instrument chorale, Ligeti's piece is transformed into a kind of sonorous Warhol. ■

Hans-Jürgen Schaal

Ken Thomson: *Sextet* (Panoramic Recordings pan09)

Thelonious Monk: *Monk's Music* | (Riverside RLP 12-242) 1

Photo: Stefan Gawlick



Professional musician Stefan Gawlick travels the world and knows almost every major concert hall around the globe. In this series, he reports on the acoustics and other characteristics of famous venues—both in the auditorium and on stage.

IZUMI HALL, OSAKA

—According to Oscar Wilde, imitation is the sincerest form of flattery.

While we have a more reticent attitude in these parts to this reference, the Japanese have no such reservations. If something has proved to be good or effective, then you don't need to keep reinventing the wheel, but instead just adopt properties that have already been developed—perhaps by others too—and improve details. Ultimately that saves money and enables you to achieve better results faster.

Izumi Hall in Osaka is a case in point. The fact that it was modeled on the Grand Hall at the Musikverein in Vienna is not spoken about on the quiet—the director of Izumi Hall uses this role model to promote it, yet

this reference quickly clarifies what aspiration is being pursued.

It was intended to be a first-choice venue for chamber music and an excellent one for orchestral concerts; a warm sound mix was defined as the acoustic ideal, which enables pleasant immersion into a range of sounds. Of the major established concert halls, only three (Carnegie Hall, Concertgebouw and Musikverein) were then considered, and Vienna was selected. Incidentally you can only tell that Izumi Hall was not built until 1990 from the building's exterior.

For one thing, you can overlook the fact that it resembles, architecturally speaking, a bland modern convention center, which you will find all over the world. Once

you have passed through the performers' entrance, which is also rather plain, and entered the actual hall, that is like a mini shock, because one step takes you back right into the 19th century. Izumi Hall does not feature gold that glitters like its Vienna role model, but rather warm, dark wood finishes that shimmer. When we performed there for the first time with an orchestra, we did not know anything about its genesis, but after the first few notes we had the feeling we were in Vienna—at least sound-wise the copy is an amazing success.

When you perform there you experience the same kind of effortlessness as you do in the Musikverein: You just have to play one note and the hall takes care of ▶



Photo: Stefan Gawlick

everything else. Sounds don't have to be kept alive through constant input of energy, but almost evolve by themselves; minimal guidance is all that's required to point them in the desired direction. Izumi Hall tends to be more flattering regarding the highest frequencies, which causes it to have a somewhat more restrained and warmer effect. That enables musicians to rise to the bait a bit more at in-your-face places in the score and to push back boundaries. Izumi Hall is forgiving of sound levels, which would raise the roof in Vienna.

What's practical about this new copy of an old hall is that the planning process was professional and applicatory. Wide stage doors,

an instrument elevator in the floor, large storerooms directly behind the stage—everything that is prohibited in Vienna by preservation orders is feasible here. These storerooms are put to good use in Osaka: I know of few concert halls that provide such an arsenal of superb harpsichords, fortepianos, Steinway D models, Bösendorfer Imperials and Yamaha grand pianos. Unfortunately I was not able to listen to the impressive organ, but was told that it too is of exquisite quality.

What is also really convenient for us musicians is direct access from the superb Otani Hotel to the hall—you can rush from your room to the stage in evening attire, which

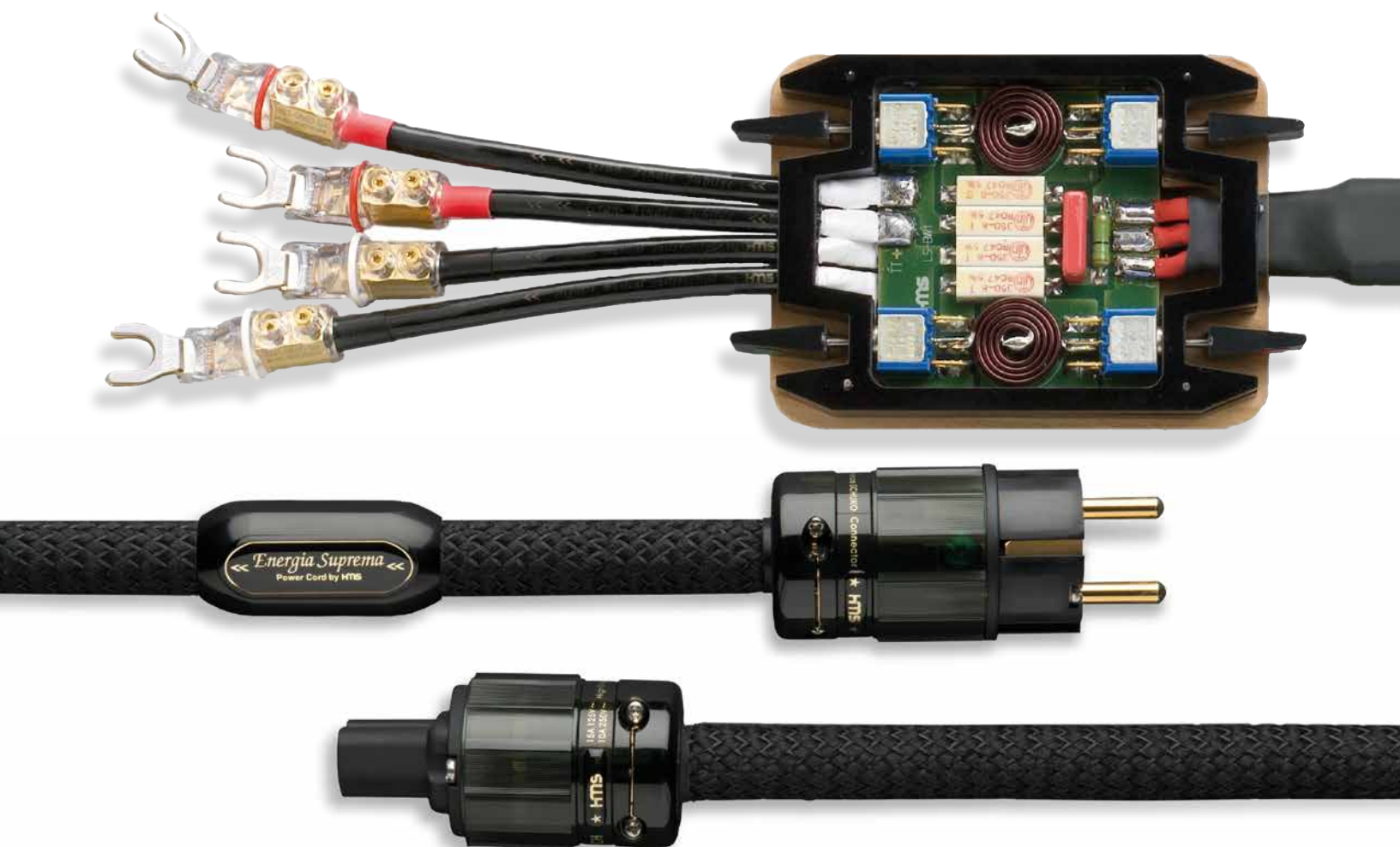
makes life a lot easier when you're touring. The fact that the hotel and concert hall are located right next door to Osaka Castle and Park means Izumi Hall scores extra points. But what makes this concert venue truly magnificent is its close proximity to one of Osaka's most bustling restaurant districts. ■

<http://www.izumihall.jp/english/index.html>

Music tips | CD tips with characteristic concert-hall sound: unfortunately recordings are rarely made in this hall. But there are a couple of videos on Youtube (music for piano and flute), which thanks to frugal miking arrangements indicate the hall's sound quality well.



...and now for something completely different...



Did you know?

Hans M. Strassner has been a music enthusiast since childhood and tinkered on his own tube amplifiers and speakers in his youth. It is certainly possible that this was the impetus for his study of physics, which he completed together with a major in electrical engineering—also not entirely coincidentally. In the years following, he imported highly sensitive measuring instruments from a US manufacturer that could be used to measure the slightest currents. It was his own field tests with these analytical devices that ultimately kindled his interest in signal transmission. Sometimes fortunate circumstances align in just the right way.

HMS

THE PHYSICS OF SOUND

It is hard to believe that HMS only made its appearance as a manufacturer in the mid-1990s. In just a short time, the Leverkusen-based manufactory took its place among the big names in the German hifi landscape; what's more, it is thanks to Hans M. Strassner that cables are able to enjoy the status of components in the first place. In addition to his level-headed demeanor, this is primarily due to the fact that the physicist eagerly includes the basics of signal transmission and has always viewed the synergy of technology and sound as interrelated. In any event, there is no place for the mystic or esoteric at HMS.

In Munich, the manufacturer is displaying its entire range, including product families such as "Grand Finale Jubilee" and "Suprema", which represent what is technically feasible in this segment. A demonstration will not take place this year either, since the bustling exhibition halls are much too large to distinguish

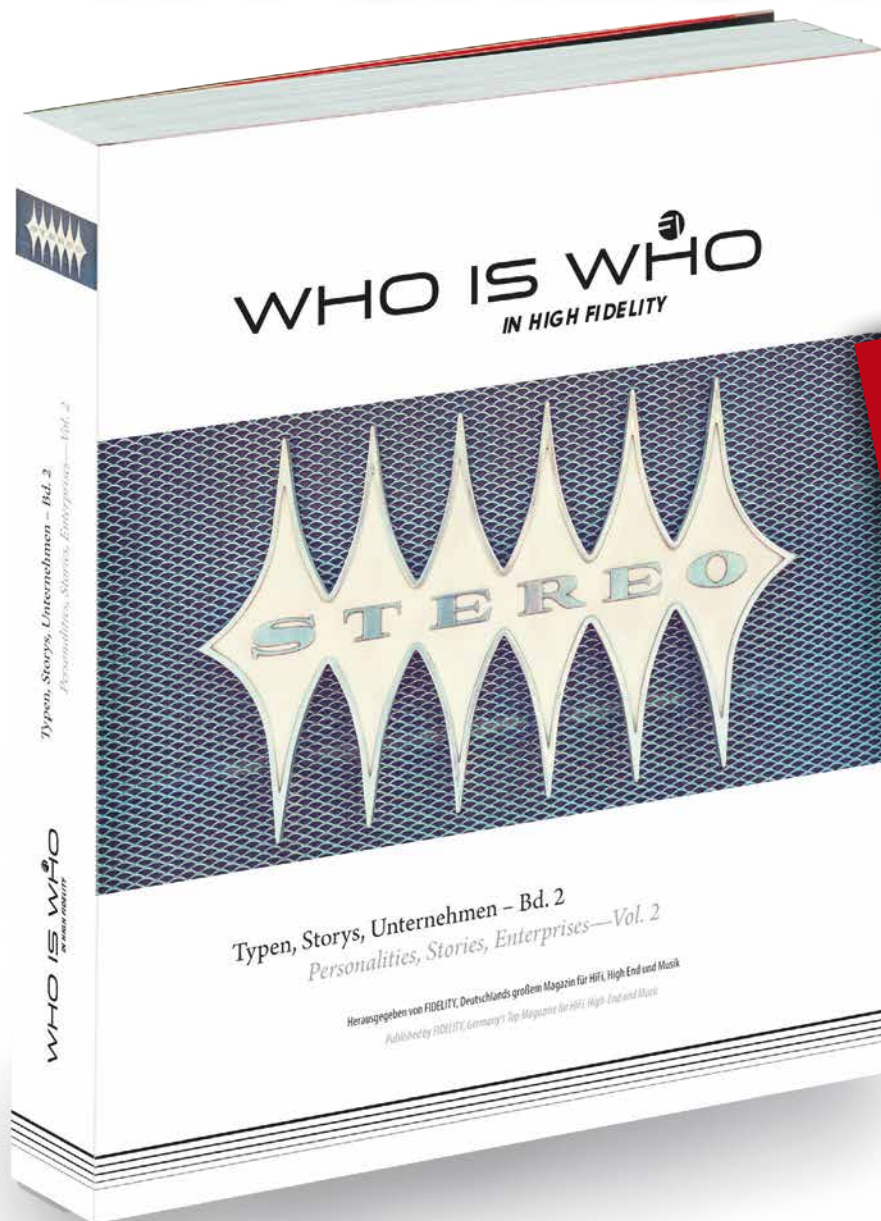
the subtle differences in sound—an inherent problem faced by all cable and accessories providers. But if you keep your eyes open, you'll discover the visually appealing cables from the Leverkusen-based maker in many of the systems. We think that's an advantage anyway, since it means there is more time to chat with Hans M. Strassner and find out how, for instance, a conductor such as the superb "Suprema SLS" influences the transparency of treble reproduction or why some of the cables and power strips are equipped with filters. You'll leave the booth wiser than when you came—promised! •

HMS is presenting its portfolio at booth L01 in Hall 3 at HIGH END.

www.hmselektronik.com

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FAIRCHILD: SIDEBAR

By Bill Leebens | from Copper Magazine Issue 82



Hank O'Neal, with a few of his favorite recordings.

FIDELITY cooperation with *Copper* magazine: <https://www.psaudio.com/copper-magazine/>
Read this article also in *Copper*: <https://www.psaudio.com/article/fairchild-sidebar/>



Hank photographed avant-garde composer/performer Joan La Barbara in 1977 for her album, *Tapesongs*.



_____As I indicated in my first installment on Fairchild, back in Copper # 75, part of the enjoyment of researching these articles is ending up somewhere completely unexpected. As the series of articles went along, Tom Fine referred me to an old blog by a gentleman named Hank O’Neal, which contained a personal recollection of Sherman Fairchild. I had

the pleasure of visiting Hank recently in New York City. My resume is bewildering, but Hank’s is simply mind-boggling. As a young CIA agent stationed in New York, charged with making the acquaintance of leading US industrialists —don’t ask why—O’Neal was led to Sherman Fairchild by a two-fold path. First, *someone* in Washington needed to know

something about the cameras Fairchild’s company Fairchild Camera and Instruments supplied for use in satellites and spy planes, and O’Neal was instructed to go straight to the top: Sherman Fairchild himself. Apparently, such introductions are more easily arranged if one works for The Agency. The second path of introduction to Fairchild? O’Neal was a jazz ►

The master at his Mac.



fan, and had come to know the pianist Marian McPartland. And McPartland was well-acquainted with the music-loving amateur pianist, Sherman Fairchild.

One way or another, in late '67 or early '68 O'Neal met with Fairchild at his home at 17 E. 65th Street—presently available for a mere \$35,000,000, by the way. McPartland had advised Fairchild of Hank's interest in jazz, and once the agency business was concluded,

Fairchild led O'Neal to the living room, past the pair of Steinway grands, and showed him a small room packed with recording gear—most of it made by another of Fairchild's companies, Fairchild Recording Products. O'Neal was invited to record whomever whenever he liked, and taught himself how to use the compact studio. O'Neal recalls, "I don't remember the first recording session but I know they started very soon, continued until [Fairchild's death in] 1971, and

there were many of them. Classical, jazz, blues, even a little pop, with artists as diverse as Joe Venuti, Blind Gary Davis, Jane Harvey and a classical duo, Phillips and Renzuli. It was on the job training; I taught myself audio engineering in the small room on 65th Street."

Keep in mind that all this was happening while Hank was still active as a CIA agent. Within a while, O'Neal, McPartland, and Fairchild founded



Hank with a few of the musicians he's known, recorded, or photographed. Often, all three.



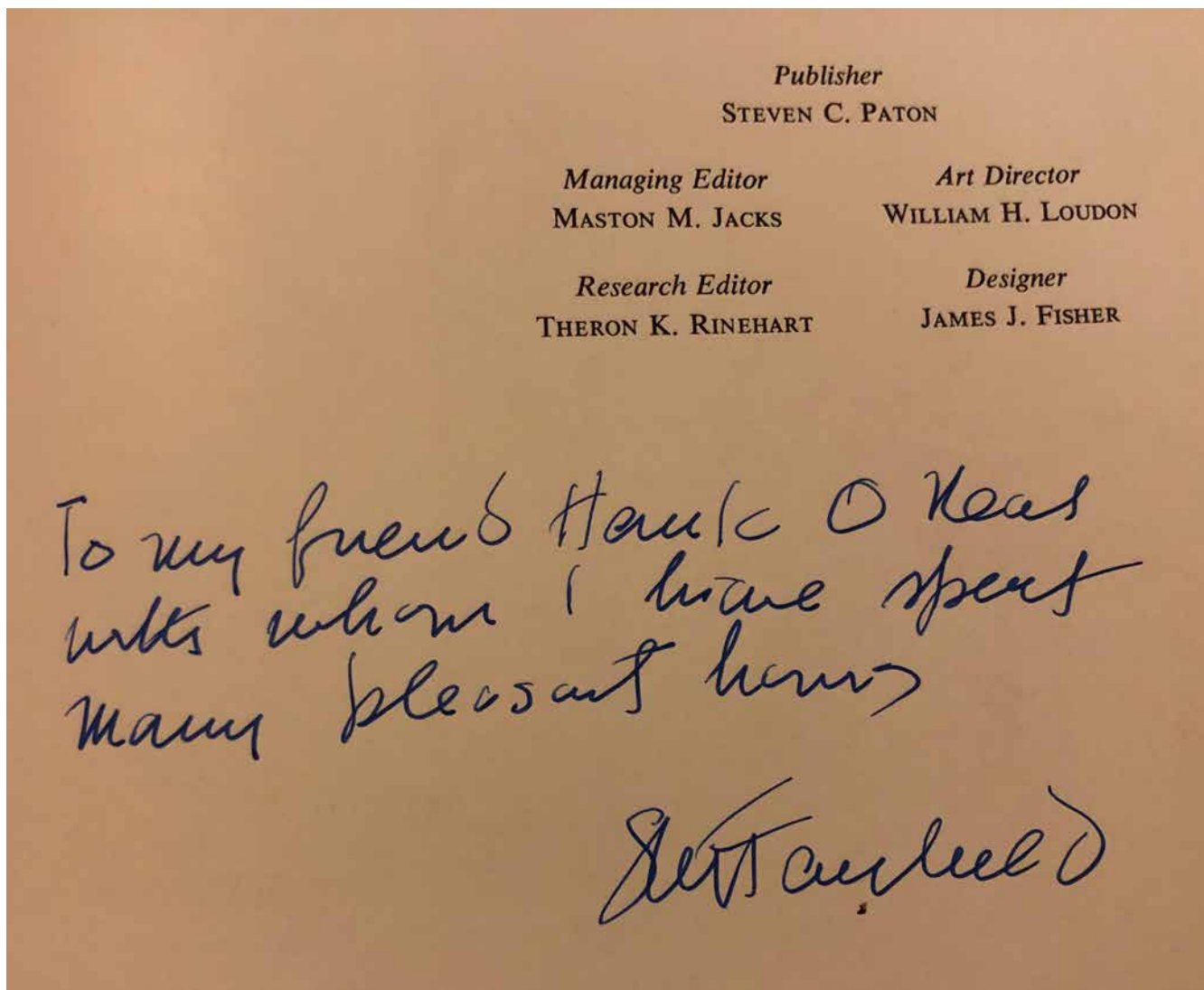
a record company, which morphed into the Chiaroscuro Records label. Along the way, McPartland departed. As if this weren't enough to keep a 20-something government agent busy, Fairchild, the pioneering developer of aerial cameras, encouraged O'Neal's interest in photography. Following a string of illnesses, Fairchild passed away in the Spring of 1971. O'Neal recalls, "A few weeks after his death I was summoned by his lawyers.

They told me that the small record company was Sherman's last venture with which he was personally involved but his last will predated its formation. They added that because of the complexities of his Estate and because everything would be scrutinized very carefully, all the rules had to be followed. They added they knew Sherman would have wanted me to continue the company and that I should have his share, but because no

mention of this was made, I would have to purchase Sherman's share from the Estate, if I wanted it.

"I asked how much that might be. With a smile, one said, 'We feel Sherman's initial investment would be appropriate.' Sherman, Marian and I had each put up \$500 to start the company. I was able to buy the company, all the masters, the bank account and the stock for \$500 and this ▶

Flyleaf of the book “Yesterday, Today, Tomorrow”, about Fairchild aircraft—inscribed to Hank O’Neal by Sherman Fairchild.



was the beginning of more adventures in music, photography and hundreds of exciting new friends and associates that continue to this day.” Over the last 48 years, Hank has bounced between photography, recording and production (including a short-lived venture with John Hammond, during which time he helped promote Stevie Ray Vaughan), and with his partner Shelley Shier, concert and festival production. He’s also written a number of books; I read his first book,

Eddie Condon’s Scrapbook of Jazz, when I was a teenager.

In spite of all his accomplishments, Hank is affable and approachable, still a small-town Texan in manner and demeanor, and readily invited me to visit after he learned of my interest in Fairchild—whom he still credits with helping him get his start in the recording and music worlds. He’s a skilled story-teller with anecdotes about an astonishing range of

folk: his first book editor? Jackie Onassis. His mentors in photography? Berenice Abbott, Walker Evans, and André Kertész. The Clash, Dr. John, Leonard Bernstein, Willie “The Lion” Smith, Allen Ginsberg, Andy Warhol? He’s known them all, and dozens more. One book Hank hasn’t written is an autobiography.

Like Sherman Fairchild, he’s a natural subject for a biography. I’ll get to work on it. ■

Forever Young—classic albums reach 50

LED ZEPPELIN II

Publication date:
October 22, 1969
Label: Atlantic Records
Producer: Jimmy Page
Number of tracks: 9
Length: 41:29 minutes

Plagiarism disputes 1:
The 1970 UK release states
Chester Burnett (alias
Howlin' Wolf) as the author
of "Killing Floor", the track
is only called "The Lemon
Song" at a later date" and
is allegedly a Robert Plant
creation. Howlin' Wolf's
record company sued and
was awarded royalties.



Classic rock albums have been around for roughly 50 years now. Despite their age, many of them are still definitely worth a listen. It's high time we created a bourgeois-intelligentsia canon.

Tops: Whole Lotta Love, The Lemon Song, Heartbreaker, Ramble On, Bring It On Home

Flops: Living Loving Maid (this was Robert Plant's opinion about his song)

Lineup:
Jimmy Page: acoustic, electric and pedal steel guitars, theremin, backing vocals
Robert Plant: lead vocals, harmonica
John Paul Jones: bass guitar, organ, backing vocals
John Bonham: drums, backing vocals

—The—pardon me for saying so—phatest album in rock music history by the greatest band on the planet. In 1969 Led Zeppelin represented the pinnacle of rock music, the psychedelic wormhole, through which blues could slip into new, harder times. You can only aptly compare the first three (for my sake: four) LedZep albums with the stone tablets on which the Ten Commandments were written. They were suddenly there, nobody had expected them, and the suspicion remains that higher powers were involved.

Robert Plant had the stage presence of an ancient god and Jimmy Page, the Paganini of the electric guitar, conjured up simple, mindless, loud, skewed riffs to last for eternity with such ease. To do so, he neither had to study musical scores by Bach, like the rock graduates from Deep Purple, nor court the favor of Satan, like the enfants terribles from Black Sabbath. Compared to Page, guitarists of his era were all egomaniacs (exception:

Jimi Hendrix); he in contrast appeared modest, merely the vehicle for his instrument. Page took the legacy of his role models Muddy Waters, Sonny Boy Williamson, Howlin' Wolf or Robert Johnson, fed it into his magical, space- and time-stretching wah-wah pedal and thus revealed the essence of blues. Cream, Stones, Faces and many others stole blues harmonies, Led Zeppelin in contrast robbed blues of its soul and inhaled it. The band was a mouthpiece of Delta blues. Basically the nine tracks are pieces of a jigsaw, which when pieced together yield a, no, the simple Mississippi mud-stained blues riff that subsumes all the others. Led Zeppelin II was born while the band was touring, and was recorded and mixed in London, L.A., New York and Vancouver. The improvised ad-hoc way of working characterizes the album in several respects. It sounds feverish, bleary-eyed, restless and uneasy, leaden and vibrantly overpowering, repetitive and inflammatory. Regardless of the ▶

Sound engineer Eddie Kramer, who supported Jimmy Page, had acquired a legendary reputation through his work with Hendrix. In between studio recordings he also recorded the Woodstock Festival.

The lyrics of the superficially harmless “The Lemon Song” caused outrage in prudish America.

“Living Loving Maid (She’s Just A Woman)”, which the band didn’t like, was only the second track from the album to make the charts, ironically as the B-side of the only single.

Charts:
The album dislodged Abbey Road by the Beatles from top spot in December 1969. In Austria Led Zeppelin II topped the charts for nine weeks.

On “What Is And What Should Never Be” Jimmy Page surfs different levels very impressively on a Gibson Les Paul. This instrument subsequently became his trademark.

Plagiarism disputes 2:
In 1985 (!) Willie Dixon claimed royalties for “Whole Lotta Love”. Dixon had once written “You Need Love”, on which the track was modeled and featuring an identical riff, for Muddy Waters. The legal dispute ended with an out-of-court settlement. The Small Faces had also stolen the song with “You Need Loving”, but got off scott-free.



Given its complex structure, “Ramble On” was only performed live in full length in December 2007.

The lyrics of “Ramble On” are an expression of Plant’s penchant for medieval music and for his admiration of Tolkien.

“Whole Lotta Love” was the last song to be performed live by the original lineup. At later reunions Jason Bonham played the drums in place of his father John, who died in 1980.

The cover is based on a photo of a fighter squadron commanded by the Red Baron that was doctored by artist David Juniper—all faces were replaced. NASA astronaut Frank Borman also found his way onto the photo by mistake instead of Neil Armstrong. You can even spot a woman among the fighter pilots—the actress Glynis John.

The only single from the album to be released on its own—“Whole Lotta Love”—climbed to Number 4 in the Billboard Charts. Although the band opposed it, “Whole Lotta Love” was trimmed for radio by cutting out the psychedelic middle section.

generous use of effects, this production remains raw, arrangements seem more pounding than polished and it once again demonstrates that perfect rock albums are seldom created in ideal circumstances. But audiophiles also regard II as an ambivalent concoction. In a state of insomnia Led Zeppelin have ripped the lid off Pandora’s Box as if it contained salted peanuts. Dynamic range compression was exhaustively maxed out without any qualms. The airship is ablaze as it falls scorching

from the sky. With that said, it’s surprising when “Whole Lotta Love” is played during hi-fi demonstrations. It’s out of place there—the only correct response to that is to leave the room. We listen to Led Zeppelin II furtively. What is possibly the most important album in rock history and most certainly a valid hard rock manifesto as well as (satanic) heavy metal bible requires more responsible treatment. ■

Helmut Hack



A visit to Audio Note UK in Partridge Green

DAMPING IS EVERYTHING

OR: WHAT DOES WAX
ACTUALLY SOUND LIKE?

By Hans von Draminski and Ingo Schulz (text and photos)

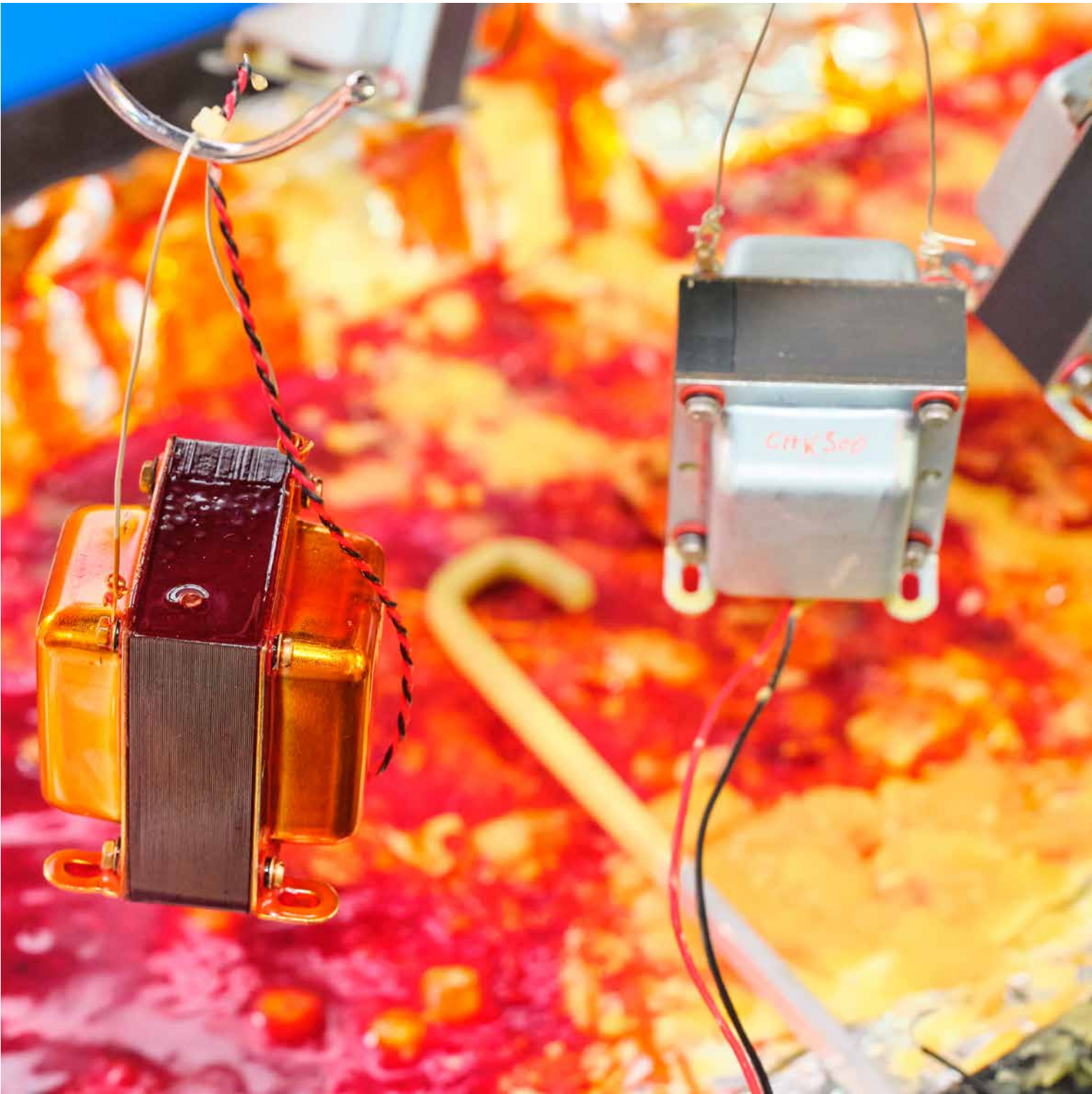




_____The early-morning flight arrived right on time. England greeted the FIDELITY team with uncharacteristically brilliant sunshine. This was then joined by a sunny smile delivered by Audio Note UK boss Peter Qvortrup, who picked up Mr. Schulz and yours truly from London Gatwick Airport in a Mercedes S-Class that would have long ago earned its retirement and received a special classic-car license plate in Germany. At Audio Note UK though, vehicle is seen and used as a low-tax company car. And that's by no means the only thing that sets the high-end manufacturer apart from many of its competitors.

After years of decentralization involving various sites strewn far and wide, the company relocated not so long ago, setting up its modest headquarters in Partridge Green, a town located near the seaside resort of Brighton and about an hour's drive away from the sprawling metropolis of London. As we drove through a small industrial park

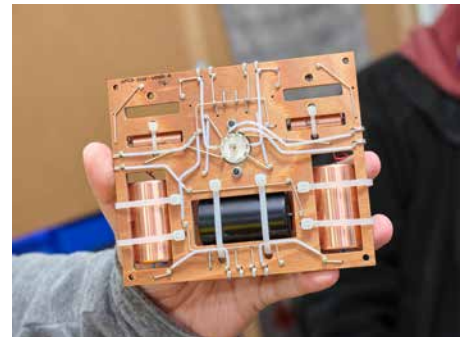
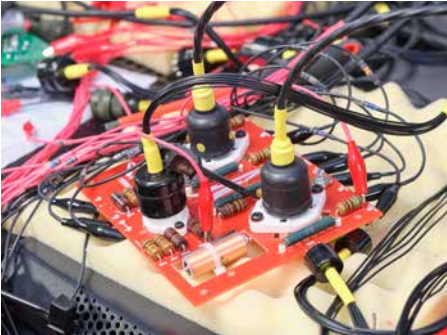
and rolled up to the premises, we were struck with the surprisingly unspectacular look of the comparatively low-rise ensemble of brick buildings. An unimposing company logo attached to a door identified the main entrance. Parked all around, the Mercedes modern classics, which Audio Note provides to get its employees from A to B, served as the only clue that one of Britain's top dogs in high-quality music playback is located here. The thoroughly innovative company is chock full of creative lateral thinkers, starting with its boss. Peter Qvortrup is actually from Denmark but has been living on the island for several decades; and, despite the UK's looming exit from the European Union, he has remained decidedly calm about it all. That Qvortrup had articulated thoughts about relocating parts of the company's production to EU member states (most Audio Note product components have been manufactured in-house at British company headquarters and so only a handful have had ▶



The Towering Inferno, just like in a Hollywood movie: three transformers after waxing over the drip tray



All the company's decentralized sites have been brought together in Partridge Green. All of Audio Note UK is now housed under one roof. The company relies on extensive stock it has in storage and genius developers who permanently carry out improvements—and not just with tubes.



to be procured) revealed the pragmatic nature of a company head who has already weathered many a storm with his business. Cutting the umbilical cord from the original Japanese company was one such challenging feat. A dyed-in-the-wool economics nerd, Qvortrup consumes business and finance literature the way that most people read the daily newspaper. That gives you a good idea about the kind of entrepreneur he is: one that combines great instinct and ingenuity with solid knowledge in equal measure.

In addition, his company's product portfolio follows a clear-cut course: Audio Note UK systematically deploys tube technology—and not just in its amplifiers but also in the output stages of its CD players and in its phono transformers, for example. Why does this equipment sound better than the cheap Chinese tube devices that have now flooded the market and can be bought for a few euros on certain online portals? Upon hearing that question, Qvortrup just smiled and bit into his coronation chicken sandwich. Then, instead of providing a simple response, he invited us to take a tour of the new consolidated site, which is around three times the size of the

previously decentralized premises. The sightseeing tour turned into a virtual roller-coaster ride into the complex audio universe of Qvortrup, a world where truly astonishing manufacturing techniques are deployed by a handful of exceptionally remarkable individuals with immense knowledge and expertise.

To warm up our tour a bit, Audio Note's charismatic head honcho placed a couple of tubes on the conference room table. Their collection is enormous. Just how enormous was a fact we would discover only bit by bit. On the table before us, in any case, was the finest new old stock. Many a collector or tube fan would've no doubt developed sweaty palms and gotten all misty-eyed at the sight of the brand-new-looking 1920s triodes. For Qvortrup, his engineers, and his technicians, the gems, some of which were nearly 100 years old, have actually served, by contrast, as analysis devices: What was already great back then? And what could be improved through, for example, the targeted use of modern materials and manufacturing techniques so the sound quality could audibly benefit as a result? Tantalum plays an important role, indicated Qvortrup. The rare ►

The electrolytic capacitors are filled with a special liquid and then tightly sealed.



metal has been a significant feature of the components Audio Note has developed and manufactured. Qvortrup explained he had to spend a pretty penny to develop various “formulas” for constructing tantalum resistors. The head of this full-range manufacturer has not wanted to relinquish responsibility for their quality to suppliers. After conducting an extensive series of tests, the team arrived at the conviction that the use of tantalum would result in a “fuller, tighter sound.” “Resistors only sound the same in theory,” Qvortrup emphasized before adding: “You can’t measure the difference, but you can easily hear it.”

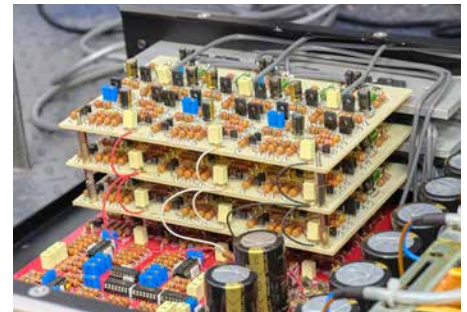
As we continued our walk through Audio Note’s incredibly spacious premises, the initial impression we had of the company just deepened: They operated differently at this think tank and conventional development, production, and marketing approaches were scrutinized and then always willingly discarded if need be. Assembly lines were nowhere to be found—but then again, there wouldn’t be much point using them in view of the number of units produced in Partridge Green. That meant we discovered all manner of clues pointing to an exceptionally broad range of

in-house manufacturing operations. Partially finished transformers were lined up next to a very high-quality (and fittingly expensive) winding machine for transformer coils that was placing wire layer next to wire layer with pinpoint accuracy.

In another room, we spied stacks of circuit boards made from a wide variety of materials that even included “Panzerholz,” a hardened panel material well-known in the audio scene. Known here by a different name, it has also been put together somewhat differently. As we spoke, Qvortrup would sometimes refer to the competition in the audio sector as “toy companies.” He was only half joking. That’s because “they talk the talk, but don’t really walk the walk” and because at times they just make a fancy housing assembled it around a mish-mash of procured components and then advertise this—according to Qvortrup at best an average product—as a groundbreaking in-house design.

At Audio Note UK, almost all components, including those under the cover, bear the simple, unpretentious “AN” logo — and the FIDELITY team got to witness these components being manufactured from the respective raw material. The company has placed ►

Assembly lines? No way! At this West Sussex company, the products are all crafted by hand. Exceptionally efficient specialists with decades of experience work on the devices and leave absolutely nothing to chance. The components feature astonishing details, from the circuit boards right through to the cantilevers.



sound quality at the heart of what they do. In one reflection of this, R&D Engineer Darko Greguras showed us a selection of circuit boards with different substrate (see above) and various circuitry layouts: “In terms of measurement values, they’re all the same, but the sound is radically different,” Greguras explained with a smile. He then indicated the vibration characteristics of the circuit board’s base material have a direct impact on the sound properties. Incidentally, in Partridge Green it’s possible to measure a signal-to-noise ratio of up to 140 decibels(!) — elsewhere, analysis devices would have long given up by that point.

Audio Note UK, typically starts a new design “with a blank sheet of paper,” initially considering the possible circuitry configurations well before heating up a soldering iron. “Others take a look in their circuitry diagram books and end up grabbing a laser-trimmed ready-made module from off the shelf to sell as many units as possible,” Qvortrup stated acerbically. This approach would never work at Audio Note UK, given their self-imposed high quality standards: “We’re a research and development facility that also happens to sell finished products,” Qvortrup confidently asserted in summarizing his company’s mission.

By implication, this has meant that every component, every circuit, and every layout has been permanently put to the test to determine whether any improvements could be made and whether a modification at a crucial point could have a positive impact on the resulting sound quality. So, for example, only silver cables with the highest possible level of purity run through the large power supply units because, to put it simply, they offer less resistance to the current flow. Service engineers such as James Healey don’t just test the end products once but several times. And they slam on the brakes should they encounter any serious issues, even if there’s only the faintest indication of a problem. After all, end customers shouldn’t receive anything but products worthy of being deemed “perfect” — from the little Zero entry-level combo to the titanic Ongaku integrated amplifier, which today hardly shares anything in common with the original model except the name. Improvements carried out over the decades are clearly evident with this model, for example the replacement of copper with silver in the tube circuitry. As a reminder, the Ongaku’s anodes are supplied by a voltage-doubling circuit. A typically British CV4068-type double triode is connected to a 6463 double triode over ▶

At Audio Note UK, visionary developers such as Andy Whittle (top left) do not rely on purchased parts but rather develop and build all the sound-related components themselves. The drip tray for freshly waxed transformers looks like a pizza that has met with a mishap.



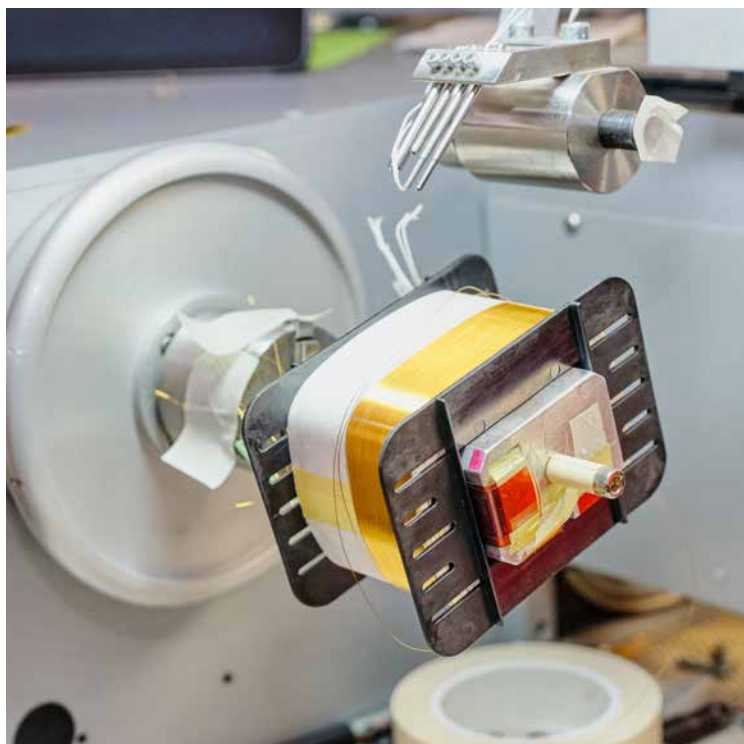
an Audio Note coupling capacitor. The driver stage and output tube are connected by coupling transformer, and the driver stage works on the coupling transformer's primary winding; thought up by Andy Grove, Audio Note's senior design and R&D engineer, the idea helps achieve an impressive bandwidth. This transformer doesn't need any resistance on the secondary winding and instead works on the almost endless impedance of the output tube's grid. The company is particularly proud of the input stage as it features a Telefunken 6463, new old stock from Audio Note's formidable tube stock. The next stop on the tour saw FIDELITY Managing Director Ingo Schulz going crazy when he got to head up a set of stairs to check out that very same stock. The company stores its real gems up in the attic. There, secured behind a sturdy barred door, we encountered a pretty enormous tube collection that, a visibly proud Peter Qvortrup told, contained well over 100,000 units. The items he showed us were neatly arranged in large piles in their original packaging. They not only guarantee Audio Note devices have a supply of spare parts for many decades to come, the tubes also form the ideal basis for testing new ideas and checking out old designs to see what future potential they have. Of course we spotted 300B and KT88 tubes of various origins—even lots of originals, still in their original boxes, since turned yellow, from back when tubes were still the height of amplifier technology. The collection, probably the lion's share of the world's known stock, even included quite a few types that had once been developed for military use. Qvortrup also treated us to seeing many tubes that only insiders would be familiar with and were possibly waiting to be used by Audio Note UK: from

the teeny-weeny 6111WA, which ensures great sound quality in the output stage of the company's smallest CD player, the CD Zero, right through to the British-produced Osram DA 60, which rarely changes hands once a person owns it and operates at around the same performance level as the much more famous 300B.

Our next delight on the tour would give fans of high-quality capacitors the vapors: There in bountiful supply stored in the room right next door were Wonder Caps, Black Gates, and many more of good repute among electronics freaks on the DIY scene as well as some capacitors that DIYers wouldn't be able to lay their hands on for love nor money because they're from the huge collection of exclusive Audio Note in-house creations. You see, in Partridge Green, they don't place orders with suppliers. They simply take what they need from their shelves, though sometimes only to have a template for a significantly enhanced tube replica. Qvortrup has a collection of around 40 triodes from the 1920s, for example. The company has had a metallurgical-analysis measuring device for quite some time now. It was even used to test the Osram tube's mesh anode. In Audio Note's new version, this is damped with molybdenum. "It should sound a lot better than the original," a confident Qvortrup stated.

When a prototype is ready, the team listens to it over and over again until the end result truly meets the requirements; damping measures play a very important role in this. "Few factors impair sound quality as much as unwanted vibration," Grove, the senior design and R&D engineer, stressed. Drawing from his own experience, Audio Note's developer for European business, Andy ▶

All the parts of the machine responsible for winding the transformer coils boast extreme precision. The same can be said about the rest of the fleet of machines, some of which were purchased in Germany as the desired minimum tolerances aren't available elsewhere.





Tubes. Tubes? Tubes! The stock is pretty enormous and features some great items, even including some exotic models.



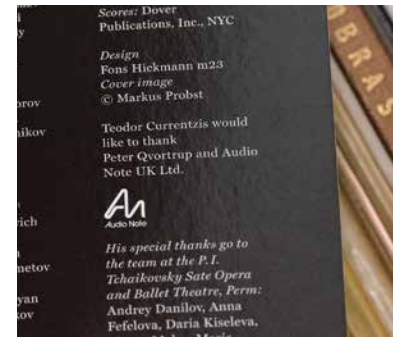
Whittle, who actually has a background in loudspeaker construction, seconded Grove. Nothing that vibrates uncontrollably can sound good. And, in the eyes of the Audio Note crew, that would apply to all, and we mean *all*, components. What that means in reality became clear to the FIDELITY team by the transformer finishing stage: When such a current converter is done (the thickness of the lamellae is 0.2 millimeter thanks to an innovative manufacturing technique), it is immersed in a special wax bath to prevent the wire windings from taking on any life of their own. “Different types of wax also sound different,” Grove revealed, a hint of a smile playing on his lips. The fact that the drip table under the transformers looked like a (rather unfortunate, overcooked) pizza and smelled like a Russian chemistry lab was testament to the intensity of the experimental testing.

Nothing is taken for granted at Audio Note UK, and Qvortrup’s specialists even scrutinize time and time again what they’ve already developed—and they meet with success, too. Yet everyone in Partridge Green seems to carry out their workday with sense of calm unlike we’ve seen anywhere else, a calmness that does, of course, include enjoying regular tea breaks out back behind the buildings. We could dedicate an entire article to the cartridge manufacturing process at Audio Note: In a permanently closed room, MC coils in comparatively small layers are wound and soldered by hand under a microscope. Given the pure workmanship carried out here, the output of little gems such as the IO Gold has been rather low.

Observing these circumstances, it became immediately clear that carrying out any kind of subcontracted manufacturing for other companies would be more or less impossible.

At the mere thought of systems not comprising “pure brand name” components Qvortrup and his team seemed to break out in hives: “You’d have better odds at winning the lottery than putting together a chain of components from different manufacturers and managing to get it to sound good,” Qvortrup stated dryly and with the certainty of a person who heads up a full-range manufacturer and is confident about the quality of his products.

Anyone keen to follow his line of thinking can purchase every single link in the chain from Audio Note, from the source (CD players or turntables in the case of Audio Note UK) right through to the loudspeakers. You won’t even have to go elsewhere for cables. The FIDELITY team got to experience just how that sounded later in the day in Qvortrup’s living room at his home. There we saw countless LPs and a variety of CDs that ranged from art songs with Peter Pears to underground dubstep combos all stacked on shelves climbing up to the ceiling. The equipment, it turned out, proved to be a chain that Qvortrup has been constantly reconfiguring with cost as no object. Regardless of whether a digital or an analog source was used, the system produced a sound with a strong sense of presence, powerful tones, and a solid bass foundation. And, although the space for the loudspeaker chassis responsible for bass reproduction was limited, even crazy dub tracks with ▶



Peter Qvortrup's living room is full of countless LPs and CDs (large photo). The lord and master of great sound gets comfy in his armchair (above) and listens to music that simply has to sound great. Don't be deceived by the laid-back atmosphere though: Audio Note UK is all about high-tech equipment. Oh, and great whiskeys.

unforgiving computer bass, which company boss Qvortrup loves almost as much as classical music, came across as tremendously powerful and super clean.

That devices such as the Ongaku integrated amplifier mentioned above, together with the CD 4.1x large top-loader CD player and the TT Two "medium-sized" AN turntable, almost universally use tube technology ought to be spelled out for the benefit of any Audio Note newcomers as nothing in the mix corresponded in any way to any tube sound-quality clichés. The incredibly powerful AN-E two-way loudspeakers projected percussion pulses with immense punch, voices with a mind-blowing sense of naturalness, and large-scale orchestras with breadth and depth scaling that would be hard to top in whiskey-lover Qvortrup's living room. A recording of Gustav Mahler's Symphony No. 6, by Greek-Russian conductor Teodor Currentzis and the MusicAeterna orchestra for Sony Classical, was tapped for demonstration purposes: In Qvortrup's opinion, it's a production featuring an extremely intelligent performance matched with outstanding sound quality.

"You have to be aware that everything has an influence on the sound," Grove and Qvortrup said almost in unison during the laid-back listening session. Grove also reminded us all that fun should

be the number one priority with music, not some analysis that only uses partly conclusive measurement results. That's why even the "transformer waxes" are assessed by ear, just like everything else at Audio Note UK. Even when it comes to the tiniest of details, Qvortrup and his team don't take their eyes off the ball or accept any "second-best" options. Since perhaps the best textile sheaths for device connection cables are found in Germany, semifinished products are regularly transported to the Continent and finished products transported back by Audio Note employees rather than by a run-of-the-mill, potentially rather unreliable parcel delivery service.

Anyone thinking that, in view of the increasing digitalization of our everyday lives, Audio Note is a company geared primarily toward old-school fans would be sorely mistaken: Alongside other exciting devices, one of their recent developments is a computer sound card. The preproduction prototype of the card (that already features the magical Audio Note logo on the cover) boasts excellent two-channel sound and super-fast data processing and, according to initial plans, is set to be priced at \$199. The future of great sound has started a long time ago in Partridge Green. ■ ▶

FROM GUITARIST TO HIGH-END DEVELOPER: THE ASTOUNDING CAREER OF ANDY GROVE

Andy Grove looks a bit like a mature rock musician: His full beard and glasses and a determined look in his eye reveals just how much perseverance this guy possesses. The fact his job title at Audio Note UK is “senior designer and R&D engineer” is no coincidence as he has been crazy about music since he was a boy and has never been afraid of diving into technology.

Grove discovered music when he was “around 13 or 14,” as he recalled when we spoke with him. The young guitarist first worked with inexpensive Blackstar amplifiers, which we could also get our hands on in Germany for a couple of hundred euros back in the day, and at some point realized that “tube amplifiers actually sound considerably better.” Grove’s father, an engineer in “real life,” restored old furniture for fun in his spare time. One day while tagging along with his father to visit an antique dealer’s, Grove discovered a couple of dusty radio construction manuals on one of the shelves and asked his father to buy the outdated technical literature for him. “That

was the initial spark,” Grove said. He grew interested in the subject area and began to read electronics magazines and consequently studied physics at college when he finished school. “Music continued to play an important role in my life, however,” Grove emphasized.

His grandmother provided him financial support to set up his own company. Grove spotted an ad in a newspaper from someone wanting to sell an old



transformer coil winding machine. “The seller also had a massive stock of tubes,” Grove explained. That was hardly surprising as it turned out he was a former development engineer at the British group EMI. “It was at a time when no one was interested in tubes any more,” Grove stated.

It was inevitable that Grove and Qvortrup would cross paths at some point. This was especially the case as Grove’s brother had bought an Ongaku integrated amplifier from Audio Note authorized dealer John Patrick Baker, and he couldn’t help but notice Grove’s love of tubes. Baker immediately suggested Grove should give Qvortrup a call. “That was 1991,” Grove recalled. He didn’t end up working with Audio Note right away: “When we spoke, we just exchanged ideas and information on a technical level.” While he was at college, Grove earned money repairing and optimizing guitar amps: “They had to be louder and louder,” he said, getting right to the point about the work he did.

These days he’s happy he “gained professional experience

in all the different areas” as he “learned a lot” over the years. Grove’s key realization boils down to this: “Everything, and I mean everything, has an influence on the sound.” And since sound-related measurements don’t always provide decisive information, the senior design and R&D engineer relies on extensive listening tests—including with guitar rock in the CD player or on the turntable. Grove come full circle. ■

Hans von Draminski

The 25 best tips for better listening—Part I

HAVE A LISTEN TO THIS!

By Jochen Reinecke

RELAX!

OR: GETTING ALONG WITH THE NEIGHBORS.

Of course, anyone who knows a thing or two will immediately ask: Why 25 tips? Why not 100, 1000 or some other number that looks much cooler than this arbitrary 25? Why not 1001? It goes without saying, that for a true high-ender, when it comes to getting a better sound from a hi-fi system, no expense is too high, no explanation is too abstruse, and no wallet is too thick. It is easy to get lost among all the temptations.

Now and then, it's simply time to approach this incredibly cool hi-fi-system thing "from scratch" (once again). But perhaps you also want to introduce a brand-new hi-fi acquaintance to the basics of your hobby without immediately scaring them off with crazy sums or bizarre rituals. That comes later. Maybe. Hopefully. This 25-part quick guide for better listening is intended as a brazen, entertaining (re-)introduction to the topic. Here, even

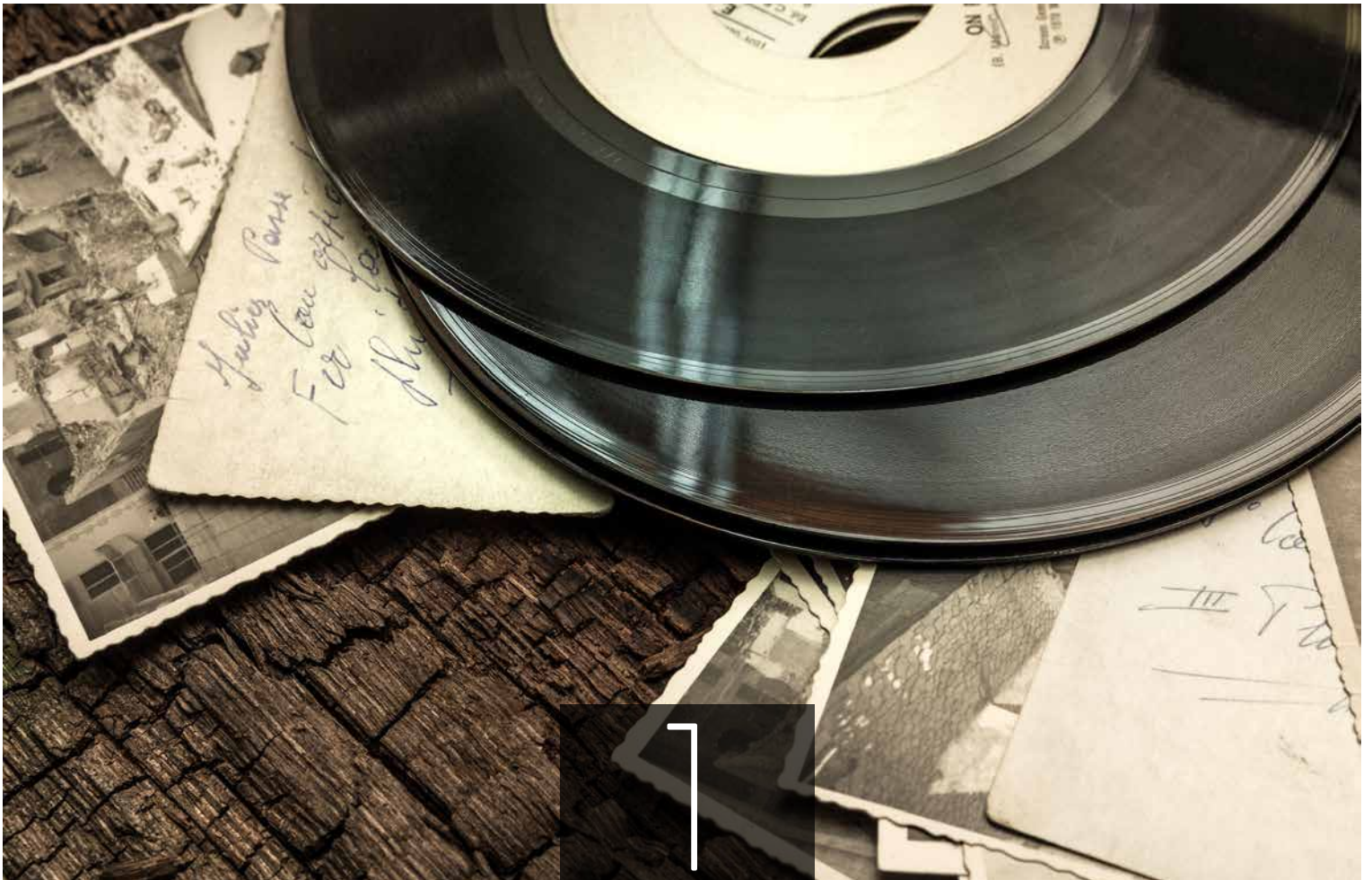
those who think they already know it all are given fresh food for thought, things to discuss, and suggestions. Of course, we are aware that as you get deeper into this topic, each new experience also raises new questions and demonstrates new aspects. Eventually you reach a point where not even 1000 tips are anywhere near enough.

On that note, have fun! And welcome to the second-most important topic in the world. Here is part one: tips 1 and 2.

If you are interested in buying the bi-lingual booklet with all the 25 tips feel free to contact us:

info@fidelity-magazine.com ▶





HAVE FUN, BE MODERATE

WHY LESS IS SOMETIMES MORE.

Let's be honest: Anyone, who has not quite grown up yet—and frankly we hi-fi fans are all kids at heart—, imagines it must be fabulous to drive a Ferrari. But—is it fun to driving a souped-up Ferrari at crawling speed in Berlin's evening rush-hour traffic and get calf cramp in the leg you use to operate the clutch? Would you enjoy driving a Smart from Leipzig to Rimini? Probably not.

The fun starts—at least sometimes—when you do things in moderation. And not if you simply turn all the control unit dials to the right. Why not maybe take this analogy into consideration when configuring your stereo system.

Yes, right—your listening space does look impressive if you have big, floor-based tower speakers attached to monobloc amplifiers using cables as thick as your arm. However the other issue is: what does the music sound like in a room measuring 13 square meters (just under 140 square feet). And whether you might have obtained a significantly better sound to suit your listening environment at a quarter of the asking price. It's often the case that large tower speakers not only require a minimum volume in order to be able to appreciate their full merits. The distance between the speakers and listener should also not be too small, to enable the sound generated by all the drivers to merge into an integral whole.

Last but not least, the speakers should have a certain clearance from any walls. Things could get tight in a small room.

The same applies to amplifiers. If you utilize a 2 x 500 watt rollercoaster of an amp in a tiny space, you will scarcely get beyond the 9 o'clock setting on the volume control knob. And thus you will never get to listen to the bulk of what the amplifier can do.

The best thing to do when planning your system is to put all the hi-fi magazines well aside. Instead you should take a close look at your listening space. How large is it? How much space can you factor in to realistically accommodate your system and speakers? Where can individual components be positioned? Does anybody with a sensitivity to noise live below you? In this case you can achieve significantly better results—both in terms of sound quality and good neighborliness—if you use compact loudspeakers and premium pedestals.

Once you have collected all this information, you have a rough idea of what is needed in your listening space. And perhaps you can now breathe a sigh of relief, because you don't need to spend as much money as you had feared beforehand. If that is not the case, and you are an heir by profession and are disappointed because you really wanted to have a prestigiously exclusive interior at home, don't panic! You can also spend obscene amounts of money on "small hi-fi systems". But we will cover that in our next chapter "Hand over your money!" ►



2

"HAND OVER YOUR MONEY!" GOOD BUDGETING IS HALF THE BATTLE.

Great. You want to buy a hi-fi system. The intriguing question is: How much do you want to spend? Fortunately, these days you don't have to fork out the equivalent of a mid-range automobile with all the optional extras in order to be able to buy a great-sounding system. Rather you should regard the configuration of your hi-fi chain as an alchemical process. It's a smart combination of ingredients that produces the magic—not splashing your money about.

A useful rule of thumb would be: the system you want should be priced at no more than a tenth of your annual income. Even if you don't have this amount completely "at your disposal", most dealers are willing to arrange convenient finance at low interest rates.

The next issue is how to allocate your budget as skillfully as possible. About 40 percent should be invested in loudspeakers, because these have the greatest impact on overall sound delivery along any hi-fi chain. 30 percent should be invested in the amplifier. 20 percent in the source device (e.g. CD-player) and maximum 10 percent in the cabling.

If your total budget is around 2,000 euros (around 2,250 US dollars) and you want to buy a simple, great-sounding entry-level hi-fi chain, this gives roughly the following spread:

<i>Loudspeakers:</i>	850 euros (960 US dollars)
<i>Amplifier:</i>	600 euros (670 US dollars)
<i>CD-player:</i>	400 euros (450 US dollars)
<i>Cabling:</i>	150 euros (170 US dollars)

When in doubt you're better off upgrading your system bit by bit than buying eight pieces of equipment all in one go. If, for example, you also want vinyl playback capability, you should not attempt to squeeze the costs of a record-player out of your starting budget, rather you should postpone buying it until the next "fiscal year". First of all get really well-familiarized with your newly purchased system. Experiment! Why not perhaps borrow an amplifier or a CD-player from a friend and do some split-testing to find out how marked the resulting difference in sound really is. This enables you to estimate pretty accurately how much more you need to invest. ■

Photo Credit: © Sony Music

What Kraftwerk did for the techno... ▶

1940

1950

1960

1970

1980

8/24/1948: Jarre is
born in Lyon

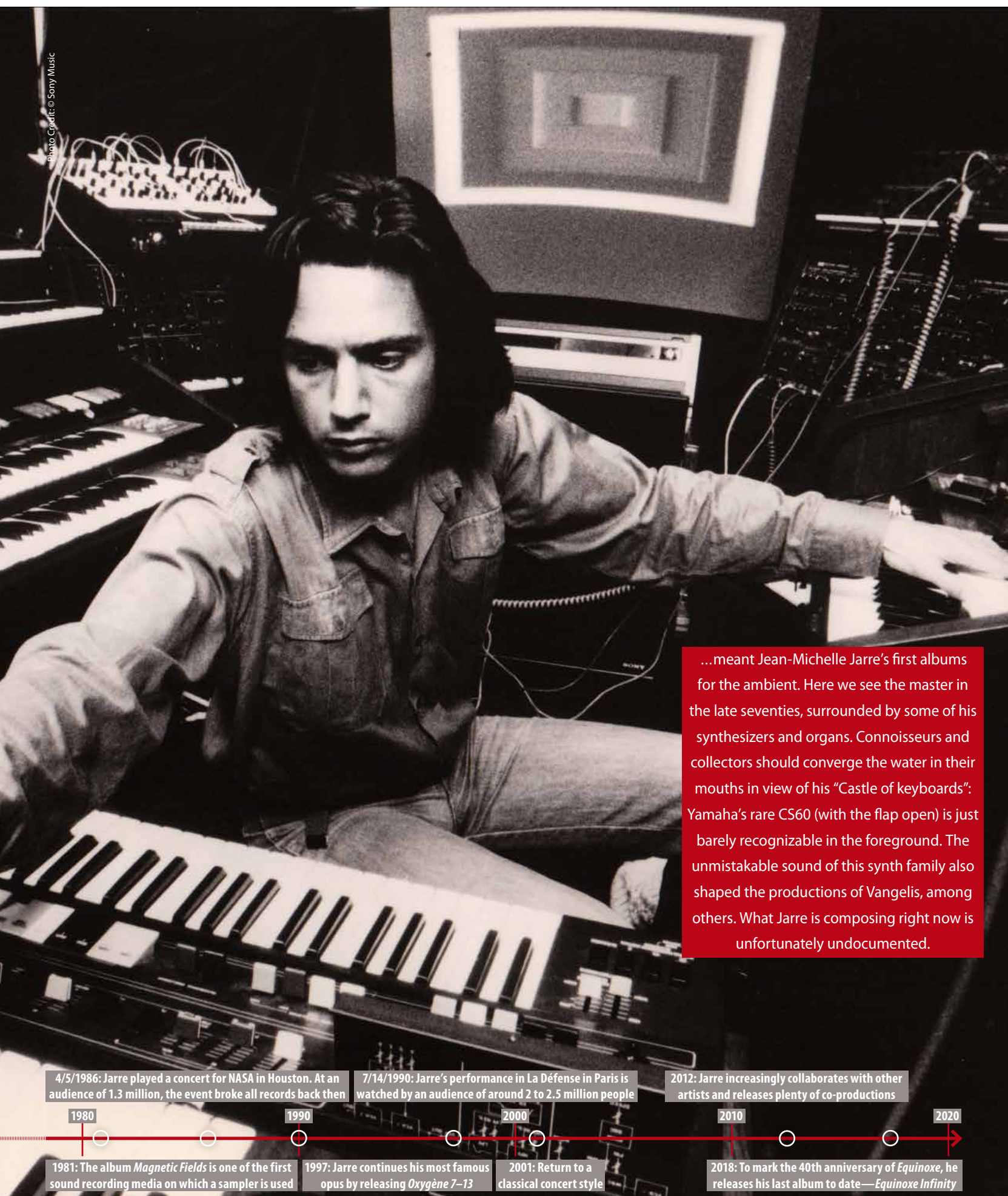
1969: After spending several years performing in cover bands, Jarre turns his attention to musique concrète and starts composing

1976: Jarre produces a music milestone—his album *Oxygène*

1971: Jarre is the youngest composer to have his works performed at the Paris Opera

1978: *Equinoxe* is released as the follow-up to *Oxygène*

Photo Credit: © Sony Music



...meant Jean-Michel Jarre's first albums for the ambient. Here we see the master in the late seventies, surrounded by some of his synthesizers and organs. Connoisseurs and collectors should converge the water in their mouths in view of his "Castle of keyboards": Yamaha's rare CS60 (with the flap open) is just barely recognizable in the foreground. The unmistakable sound of this synth family also shaped the productions of Vangelis, among others. What Jarre is composing right now is unfortunately undocumented.

4/5/1986: Jarre played a concert for NASA in Houston. At an audience of 1.3 million, the event broke all records back then

7/14/1990: Jarre's performance in La Défense in Paris is watched by an audience of around 2 to 2.5 million people

2012: Jarre increasingly collaborates with other artists and releases plenty of co-productions

1980

1990

2000

2010

2020

1981: The album *Magnetic Fields* is one of the first sound recording media on which a sampler is used

1997: Jarre continues his most famous opus by releasing *Oxygène 7–13*

2001: Return to a classical concert style

2018: To mark the 40th anniversary of *Equinoxe*, he releases his last album to date—*Equinoxe Infinity*

PREVIEW

FIDELITY international No. 14

Dear readers,

We must confess that we are standing here with almost empty hands. But for good reasons: When you read these lines, **HIGH END 2019** in our hometown Munich, one of the biggest and most important shows for audiophile music reproduction worldwide, and the **hifideluxe** just closed their gates. And of course, we were busy to collect exciting stories and tempting new products to be reviewed in FIDELITY international No. 14. ►





Besides, there already are quite a few topics in our pipeline, but we are not allowed to reveal anything about them yet—top secret, you might say. Nevertheless, there is at least one report we would like to announce, and a very special one, too: We visited **Tidal Audio**, one of Germany's top-class hi-fi manufacturers, where we were able to convince ourselves of the manufacturer's uncompromising approach and indulged for hours in listening to its most exclusive system. Let us surprise you! FIDELITY international issue 14 will be available at the end of August 2019. Or whenever it is ready.



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Editor: Ingo Schulz

Publisher: FIDELITY Media GmbH,
Gutenbergstraße 1, 85737 Ismaning,
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Telephone: +49 89 416 158 290

Email: info@fidelity-magazine.com

www.fidelity-magazine.com
and www.fidelitymedia.de
and www.fidelity-magazin.de

Authors: Carsten Barnbeck, Winfried Dulisch, Hans von Draminski, Stefan Gawlick, Anselm Goertz, Helmut Hack, Georg-Cölestin Jatta, Danny Kaey, Nik Knüpling, Bill Leebens, Patrick Pohlmann, Jochen Reinecke, Hans-Jürgen Schaal, Ingo Schulz, Claus Volke, Harald Wittig, Michael Vrzal a. o.

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THE END

Thanks for reading issue 13 of FIDELITY international. Issue 14 will be put online by August 2019 or when ready. Be prepared and subscribe to our newsletter to get the latest news at first.