

hi-fi news

& Record Review

Exclusive

ART OF AUDIO

Artisan system crafted by Jadis and DeVore

Sonus faber
Maxima Amator

Italy's lockdown-inspired
loudspeaker

140
pages

One-box Michi
High performance X3
integrated from Rotel

Supreme silver
Canor's CD 2.10 disc player

FEATURE

Opening the gatefolds
Iconic album art... Sgt Pepper's story

Budget Esoterica
Cambridge Audio SX-80 floorstanders



Thorens TD 148A
Fully automatic vinyl spinner

• **OPINION** 12 pages of letters & commentary • **VINYL RELEASE** Suede's *The London Suede* 180g LP
• **CLASSICAL COMPANION** Igor Stravinsky's 50th • **MUSIC LIBRARY** Our pick of rock 'n' roll reads
• **VINTAGE REVIEW** Sony QS-P7 'portable' turntable • **READERS' CLASSIFIEDS** Hi-Fi bargains galore

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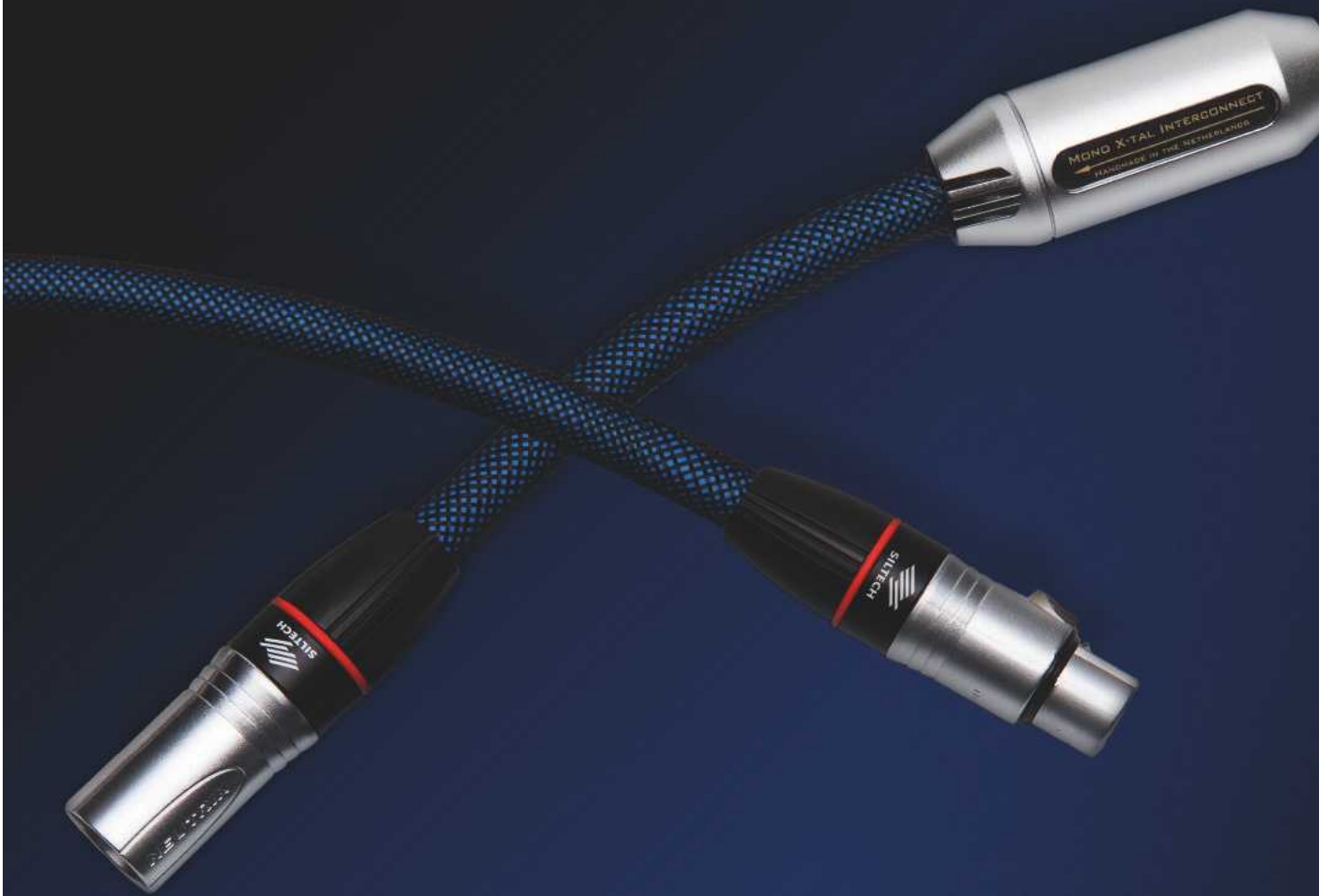
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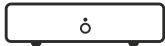
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ABOVE: Canor's CD 2.10 slot-loading silver-disc spinner combines a cutting-edge DAC, tube output and display visible from space. See p60



ABOVE: The biggest bang for your buck? Rotel distills the essence of its Michi P5/S5 pre/power into this slick X3 integrated. Prepare to be blown away on p56



MUSIC: Hailing from the divisive end of the '60s, The Doors' *...Soft Parade* made waves (p82), while Steve Sutherland fast-forwards to the '90s as Suede's *London...* is re-released on 180g LP (p80)

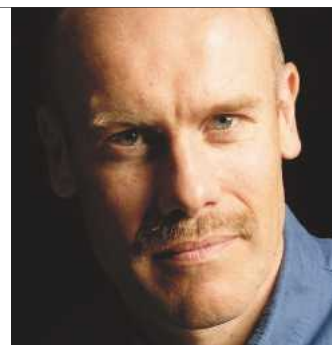
RIGHT: *Hi-Fi News & RR* is the UK's representative of EISA's Hi-Fi Expert Group. Editor Paul Miller took over as EISA's President in June 2016



Are you a one-brand audiophile or are you tempted to 'mix it up' and combine seemingly disparate products in the quest for a sound that's mightier than its parts? Judging by our postbag, and bearing in mind that our in-depth reviews predominantly focus on singular items, a pre/power combo or perhaps a turntable with arm and cartridge, then, yes, I'd hazard a guess that most of us are enjoying great music from a diverse pool of separates.

At one time there were axes of cooperation between brands, the most enduring of which was the partnering of a Linn LP12 turntable and its Kan, Sara or Isobarik speakers with Naim electronics. Those days are long gone. Arguably, the closest we have now to 'tried-and-tested' systems are those formulated by distributors and dealers who necessarily represent a limited number of brands from, typically, a range of different countries.

Examples, in no particular order, might include McIntosh amps with Sonus faber speakers [p52], Quad amps with Wharfedale speakers or Thorens turntables with a PS Audio phono stage and amp. These are not, always, obvious combinations but have arrived by happy coincidence, sharing the same UK distributor or overseas owner.



Naturally, the investigative reviews you enjoy in *Hi-Fi News* are also informed by, and help inform, the performance of one component with likely partners. For example, the combination of Melco/DCS front-end with Constellation amplifiers and B&W 800 D3 floorstanders – all very

'Most of us are enjoying great music from diverse separates'

solidly-engineered and fine-sounding in their own right – is significantly more harmonious when they pull together as a complete system in the *HFN* listening room.

So the 'art' of system matching is perhaps something we should celebrate more enthusiastically. To start the ball rolling, this month we have a truly 'artisan' system from two ostensibly contrasting brands, separated by geography, but joined by a common passion. Our story begins on p40.

PAUL MILLER GROUP EDITOR

HI-FI NEWS' EXPERT LINE UP: THE FINEST MINDS IN AUDIO JOURNALISM BRING THEIR EXPERIENCE TO BEAR ON ALL AREAS OF HI-FI & MUSIC



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Investigative journalist supreme, Barry is the first with news of the latest developments in hi-fi and music technologies



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An avid collector of audio treasures, and life-long hi-fi addict, DP lends his ears and experience from analogue to digital



KEN KESSLER
is a long-serving contributor, luxury goods writer and champion for the renaissance in valves and 'vintage hi-fi'



MARK CRAVEN
Editor of our sister title *Home Cinema Choice*, Mark's passion for music extends from stereo to multichannel and Dolby Atmos



STEVE HARRIS
Former Editor of this very title from 1986 through to 2005. A lifetime in audio and a love of jazz makes Steve a goldmine



ANDREW EVERARD
has reviewed hi-fi for over 30 years and is still effortlessly enthusiastic about new technology, kit and discovering new music



STEVE SUTHERLAND
Editor of *Hi-Fi Choice*, Steve was at the helm of *NME* through the Britpop years. Steve brings a unique slant to our music features

Copland flagship

HYBRID TRIODE/MOSFET AMP

The newest model in Copland's CSA range of tube/solid-state integrated amplifiers, the £4988 CSA150 increases its output over last year's CSA100 [*HFN* Aug '20] to a claimed 2x150W/8ohm, and, says the Danish marque, offers 'a delicious combination of power, drive, free-breathing dynamics and natural tonality'. Also a hybrid in terms of its connectivity, the CSA150 features a headphone output plus USB-B, coaxial and two optical digital inputs, balanced XLR and three unbalanced RCA line ins and MM phono. System expansion comes via its tape input/output and analogue pre-out – it can also be fitted with an optional £198 aptX HD Bluetooth module. Digital-to-analogue conversion is handled by a 32-bit ES9018 quad-mono



DAC. The CSA150 is available now in black or silver finishes, and Copland will complete the range later this spring with the entry-level CSA70 model (price to be confirmed).

Copland, Copenhagen, Denmark,
0208 971 3909; www.copland.dk;
www.absolutesounds.com



Super Audio Mac

MCINTOSH LAUNCHES NEW CD/SACD PLAYER

A CD/SACD player doubling as a standalone DAC – and promising 'McIntosh sound from everyday digital devices' – the MCD85 has been launched as a suggested partner to the American audio marque's MC830 mono amplifier and C8 tube preamp, courtesy of the same mirror-finished, bevel-fronted chassis and compact dimensions. A die-cast disc tray (with a custom 'nose' to maintain the player's angled fascia) feeds a twin-laser optical pick-up with 2x read speed and buffer memory to aid error correction. Outboard digital sources are accommodated by its dual-differential (eight-channel) DAC and S/PDIF and USB-B inputs, the latter supporting DSD256 and DXD. Hand-built at McIntosh's New York facility, the MCD85 has a UK price of £4995 and begins shipping this March.

McIntosh Laboratory Inc, 01592 744710;
www.mcintoshlabs.com; www.finesounds.uk

HI-FI NEWS' NUGGETS

SENNHEISER SELLS

Known by all audiophiles for its class-leading hi-fi headphones, Sennheiser has announced a 'repositioning of its business units', focusing on its Pro Audio, Business Communications and Neumann divisions while looking for a partner to 'invest in our Consumer business'. 'A unique sound experience is at the heart of the purchasing decision for our customers in the Premium Headphones, Enhanced Hearing, Audiophile and Soundbar segments', says Co-CEO of the 75-year-old brand, Daniel Sennheiser. 'These are the strengths that we want to work with a partner to build upon.' www.sennheiser.com

ETHER PADS

Dan Clark Audio's planar magnetic Ether 2 headphones [*HFN* Jul '19] are now being offered as a 'system package' to include all three (original, perforated and microfibre suede) earpads for £2170. Each pad offers its own distinct 'voice' and fit to suit the tastes of individual users. www.danclarkaudio.com

Focal's crown

'HIGH-END' CELESTEE HEADPHONES ARRIVE

Described as a 'luxury mobile' headphone – although not a wireless design

– Focal's new £999 Celestee debuts a navy blue/soft copper colour scheme that the French brand believes exemplifies its 'unique savoir faire'. The 35ohm impedance rating is aimed at portable audio players, as is the supplied 1.2m mini-jack cable – a 6.35mm adapter

is included in the Celestee's colour-matched woven carry case. Each closed-back cup features an aniline leather earpad and houses a 40mm M-shaped aluminium/magnesium driver in an acoustically treated chamber. The performance promise is of 'incredible bass extension and tonal balance unrivalled in their category'.

Focal-JMLab, France, 0845 660 2680;
www.focal.com



DAC to the future?

LPCM-ONLY 'LEGACY DAC' FROM MERASON OF SWITZERLAND

Designed by Swiss brand Dafrud GmbH (www.niedal.ch), and managed in the UK via Whole Note Distribution (www.wholenotedistribution.com) the minimalist Merason DAC-1 is aimed squarely at 'music enthusiasts. And aesthetes'. The thick black Perspex fascia and ventilated wrap-around bonnet mark a change from the crafted alloy chassis we've come to expect from high-end Swiss brands, including Nagra, Soulution and CH Precision, but then Merason is bringing a boutique twist to its £4195 DAC-1 and £995

Frérot outboard converters. The flagship DAC-1 [pictured] is an LPCM-only DAC offering optical, coaxial, AES and USB-B inputs, the latter employing Amanero drivers with PC/Windows computers. Then there's the choice of legacy TI (née Burr-Brown) PCM1794A DAC – one per channel – that sets the maximum 192kHz/24-bit sample rate. Sound quality is 'voiced' using custom, fully discrete I-to-V conversion and a balanced Class A output stage. **Niedal Audio Lab, Switzerland, 0203 9115 549; www.merason.ch**



Blast from the past

MORE VINTAGE-INSPIRED HI-FI FROM JBL

Mixing 'the appeal of retro design with the most current room optimisation and streaming technologies in the market', JBL's SA750 integrated amplifier aims to honour the US company's 75-year heritage while offering the connectivity demanded by 21st century audiophiles. Styling is inspired by the SA600 and SA660 models from the 1960s-1970s, combining a milled aluminium face plate, two-line orange display and 'hefty' controls with teakwood veneer side panels (an aesthetic match for JBL's L100 Classic 75 loudspeakers).

By way of contrast, a forward-thinking spec sheet includes MQA compatibility

and Roon Ready certification, Google Chromecast, Apple AirPlay 2 and UPnP wireless streaming, and Dirac Live room calibration – the latter already used to good effect in models from Harman Luxury Audio stablemate Arcam. The SA750's Class G amplification (rated at 120W/8ohm and 200W/4ohm) provides the basis for its 'impeccable sound quality'. Physical connections include USB-B and twin optical/coaxial digital inputs, six line and one MM/MC phono, pre out and front-mounted 3.5mm auxiliary and headphone jack sockets. **Harman Luxury Audio Group, 01223 203200; www.jblsynthesis.com**

Custom-tuned iFi

ZEN DAC AND ZEN CAN UPGRADES TO 'SIGNATURE DISHES'

iFi Audio has expanded its portfolio of desktop devices with Signature editions of the ZEN CAN [HFN Nov '20] and ZEN DAC [HFN Jul '20]. Both are priced at £249 and feature component upgrades, shorter signal paths, and 'Space Blue' aluminium finishes. Of greater interest, perhaps, is the removal of the headphone amp from the ZEN DAC in pursuit of a

purer performance, and the ZEN CAN's new ActiveEQ mode, which includes analogue compensation for 'Massdrop x Sennheiser HD 6XX' and HD 650 headphones. A further Signature edition of the ZEN CAN is scheduled, tailored to 'another popular headphone'. **iFi Audio (Abingdon Global Group), 01900 601954; www.ifi-audio.com**



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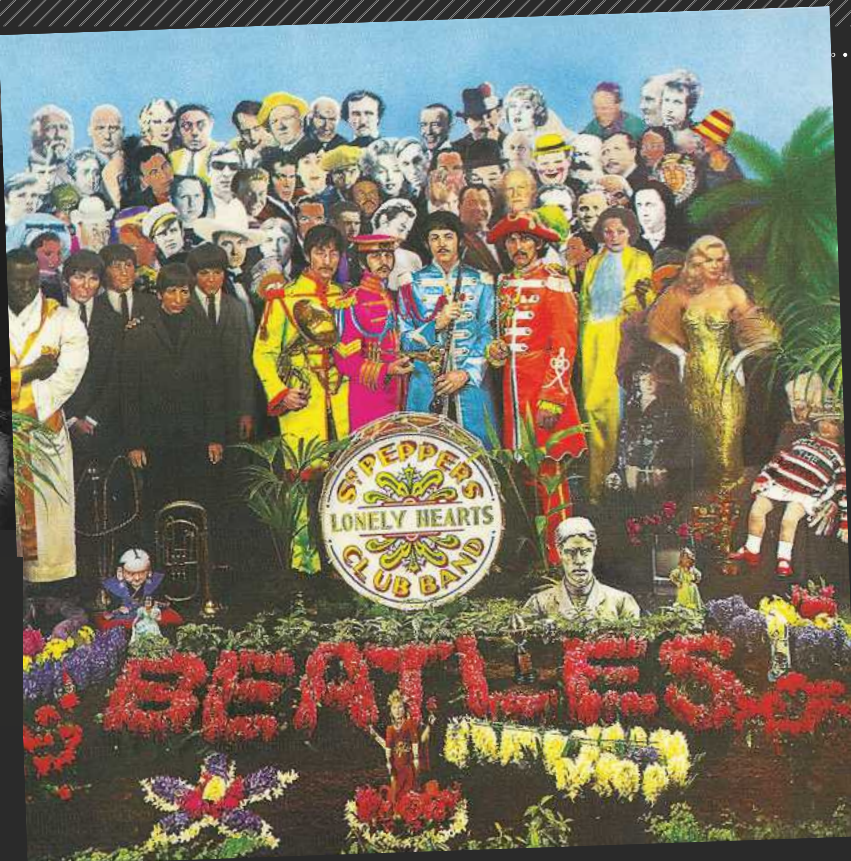
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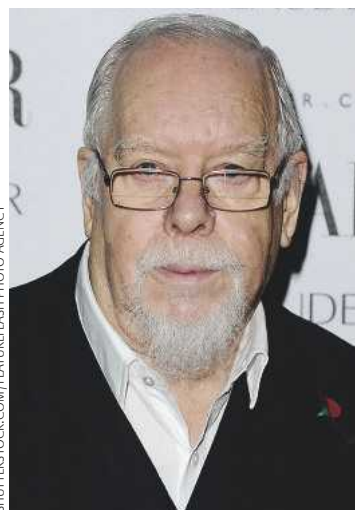


Under the covers...

Johnny Black on the creation of the iconic artwork for the sleeve of The Beatles' *Sgt Pepper's*



BELOW: British pop artist Peter Blake caught on camera in 2011. He was awarded a CBE in 1983 and knighted in 2002 for his services to art



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The real story', said Paul McCartney in 1995, 'is that I was coming back from America on a holiday trip. I was in a very laid-back mode and dreaming away, and I started imagining this idea of The Beatles as another band, to be liberated, as liberated as I felt on this holiday'.

WE CAN BE HEROES

That other band gradually took shape in McCartney's mind as Sgt Pepper's Lonely Hearts Club Band, with the result that The Beatles' eighth LP evolved as a concept piece. And to enhance the concept, the cover artwork would evolve to become a visual equivalent of the music.

The covers of the first seven Beatles albums had advanced by leaps and bounds from 1963's simple group snap of *Please Please Me* to *Revolver* in 1966, with its striking black and white yet

complex sleeve by the German artist Klaus Voormann [see boxout p29].

The Beatles had, by this point, taken over creative control of their covers. *Revolver* positioned them far out in the vanguard of album art, and the vast sums of cash they were generating for their record company EMI meant that they could lavish as much moolah as they wanted on its follow-up. And they did. The *Sgt Pepper's* cover reportedly cost £3000 in total, an appropriately mind-blowing sum at the time and one that given inflation would be the equivalent of almost £55,000 today.

It was on March the 30th, 1967, that The Beatles trooped along to the Chelsea studio of prominent artist Peter Blake to be photographed by rock photographer Michael Cooper in a session which would move the art of record packaging into a new era.

Inspired by one of McCartney's ink drawings, Blake had assembled a lavish and complex set into which Cooper's shot would integrate the band, creating what came to be known as a 'living collage'. In

deciding who and what to include in the collage, Blake had been guided by a list provided by The Beatles.

According to McCartney, 'I said, give us a list of your Top 10 heroes. John, of course, got far out, as usual. He put Hitler and Jesus in. I put Einstein, Aldous Huxley, just various people that we'd read something of'.

To give the idea some context, Blake envisioned the shot as a posed photograph taken after a concert in a park, which had

been attended by the 'heroes' on the list. 'Having decided on this', Blake later explained, 'by making cut-outs, it could be anybody, dead or alive, real or fictitious. If we wanted Hansel and Gretel, I could paint them and they could be photographed and blown up'.

TOO CONTROVERSIAL

As well as The Beatles' list, Blake contributed some of his own favourites. 'The way that worked out was fascinating. John gave me a long list and so did Paul. George suggested only Indian gurus, so there are about six of them, and

'From the start the concept proved a huge headache'



Ringo said, "Whatever the others say is fine", and didn't suggest anyone.'

From the start, the concept proved a huge headache for Blake. 'At one point Hitler was there, he is actually in the set-up, but he is covered by the Beatles themselves', Blake revealed. 'We felt that he was a difficult person to include. Jesus was there too and again we felt it was too controversial.'

To manager Brian Epstein's personal assistant, Wendy Hanson, fell the immense task of obtaining permission from all of the celebrities. 'I spent many hours and pounds on calls to the States', she recalled. 'Fred Astaire was very sweet; Shirley Temple wanted to hear the record

first; I got on famously with Marlon Brando, but Mae West wanted to know what she would be doing in a lonely hearts Club.'

WAXING POETIC

To ram home the conceit that Sgt Pepper's Band was not The Beatles, the original Madame Tussaud's waxworks of The Beatles were included. Blake has remembered how, 'they had little, high-button jackets whereas The Beatles by this time were psychedelic.

'John came to the photographic session with a white silk scarf and a daffodil in his buttonhole and wearing all sorts of badges. They had moved on and the idea was to



TOP: The Sgt Pepper's sleeve and images showing preparations for the album cover shoot in Peter Blake's Chelsea studio on March the 30th 1967

have this other band, The Beatles, looking at Sgt Pepper's band. It was a comment on the fact that the record really wasn't made by The Beatles at all. The Beatles were just a part of the audience that was watching Sgt Pepper's band'.

TALKING CLOCK

The floral arrangement on the cover, according to McCartney, 'came from an idea which is a bit Northern and a bit to do with our childhood, which was to be a floral clock. I'd seen a clock all made out of flowers in the park. I wanted us to be above a floral clock being given a mayoral presentation, meeting the Lord Mayor of Halifax or something. Peter Blake started coming in with ideas, and the guys all came in, it got to be a think tank. Rightly so'.

One element McCartney has always been adamant about is that the leafy green plants at the feet of The Beatles were not what many

ABOVE RIGHT: Photographer Michael Cooper (far left) in 1967 with (l-r) Mick Jagger, Marianne Faithfull, Shepard Sherbell, Brian Jones and the Maharishi

LEFT: The album's inside shot of the group (l-r) Ringo, John, Paul and George



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INVESTIGATION

THE PEPPER LEGACY

As far back as there have been audio recordings, the public image of musical stars has been in the hands of the record companies. But *Sgt Pepper's* had been under The Beatles'

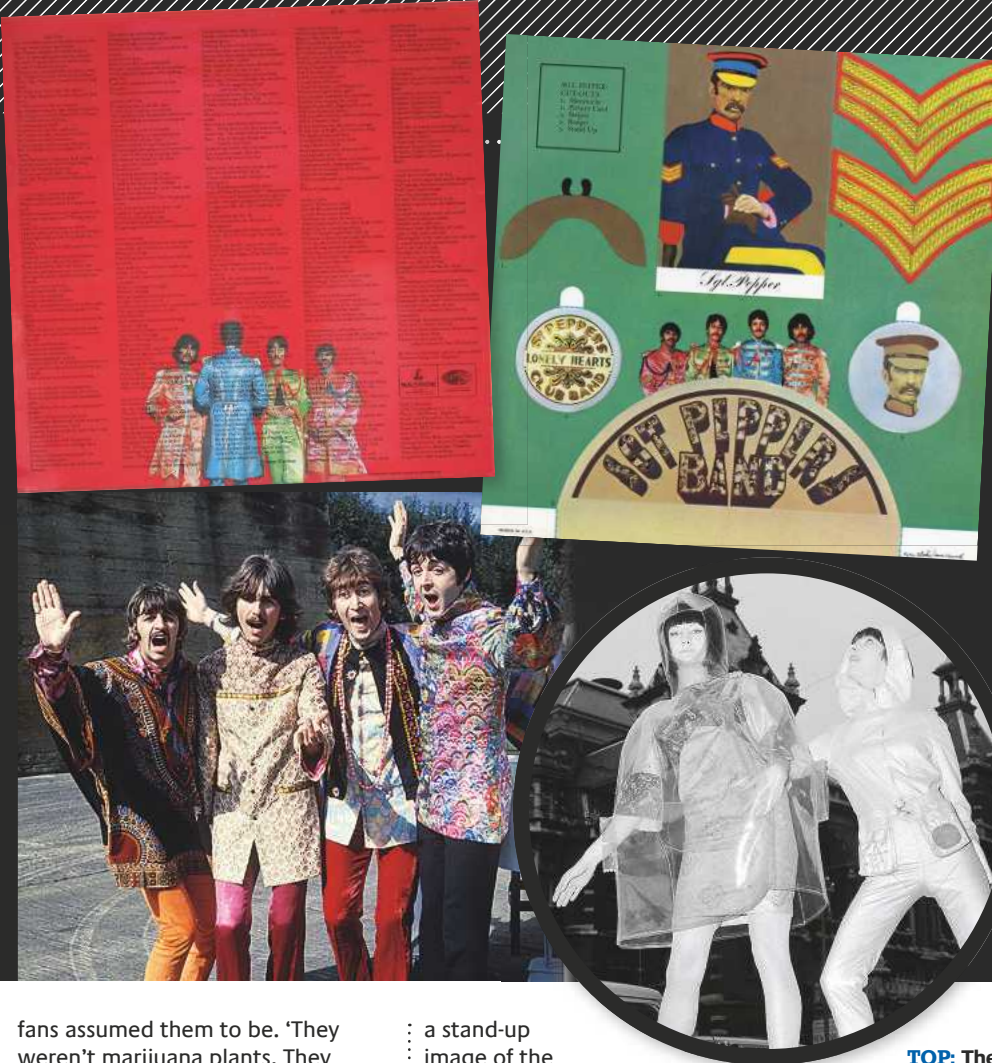
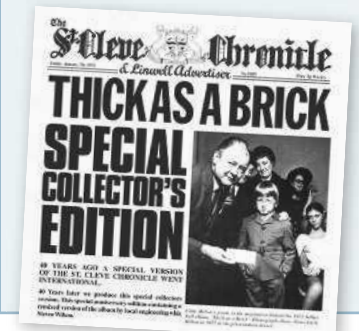


supervision from start to finish, effectively by-passing EMI's art department. Nothing would ever be quite the same again.

The original wax cylinders on which music was sold at the turn of the 20th century were packaged in identical boxes, lined with lint. Come 1910, cylinders were being replaced by shellac records, shipped in paper covers, usually adorned with designs proclaiming the name of the issuing recording company.

The 1930s saw picture discs introduced, but it was the arrival of pop art and psychedelia in the late '60s, with *Sgt Pepper's* leading the charge, which meant that, by the mid-'70s, origami-like fold out covers, scratch 'n' sniff and 'laser-etched' images were widely available.

Elaborate packages such as Jethro Tull's *Thick As A Brick* (1972), ELP's *Brain Salad Surgery* (1973) and Yes's *Yessongs* (1973) threw the door wide open and so many more followed that by the 1980s it was hard for any youthful record buyer to imagine quite why *Sgt Pepper's* had caused such a fuss.



fans assumed them to be. 'They weren't marijuana plants. They weren't. The florist just brought them in, but it got around that they were pot plants. They weren't. They were pot-plants not pot plants.'

SEEING DOUBLE

The cover was planned as a gatefold sleeve because The Beatles had hoped that *Sgt Pepper's* might be a double album. But when it became obvious they didn't have enough songs, Blake had to find some way to make use of the half of the sleeve that should have housed disc two.

The album 'ended up as only one record, but it was a double-sleeve', Blake said later. 'They thought that there would be more material but there wasn't enough for two records, so then we compiled this sheet of things you could cut out, the Sergeant's stripes and the like, for inclusion in one of the pockets.'

Inevitably, fans did as the band hoped they would, and cut out the stripes, the fake moustache, the period-style illustration of Sgt Pepper, the two badges, and

a stand-up image of the band. A copy of the original album complete with Blake's cardboard sheet is now next-to-impossible to find and, of course its value will be dramatically increased.

The cover also broke new ground by being the first to have the lyrics to all of its songs printed out in full on the rear, as well as the first to use colour not only on the front but on

the back and on the interior gatefold, with its portrait of the group against a yellow background.

'One of the things we were very much into in those days was eye

messages', McCartney said in 1997.

'So with Michael Cooper's inside photo, we said, "Now look into this camera and really say I love you! Really try and feel love; really give love through this! It'll come out; it'll show; it's an attitude". And that's what that is, if you look at it you'll see the big effort from the eyes.'

There is, however, an alternative interpretation of the message in the eyes of the group. Ringo Starr has suggested, 'Have a look at

"Look at the sleeve and draw your own conclusion!"

TOP: The rear sleeve of the album with lyrics (left) and (right) the sheet of cutouts designed by Peter Blake

ABOVE: Josje Leeger and Marijke Koger of The Fool, pictured in 1965 and (left) The Beatles in late 1967 wearing clothes designed by The Fool

TOP RIGHT: A typical Edison cylinder of the 'brown wax' type, made from 1889 to 1904

RIGHT: Jethro Tull's *Thick As A Brick* from 1972 with its cover by Roy Eldridge of Chrysalis Records

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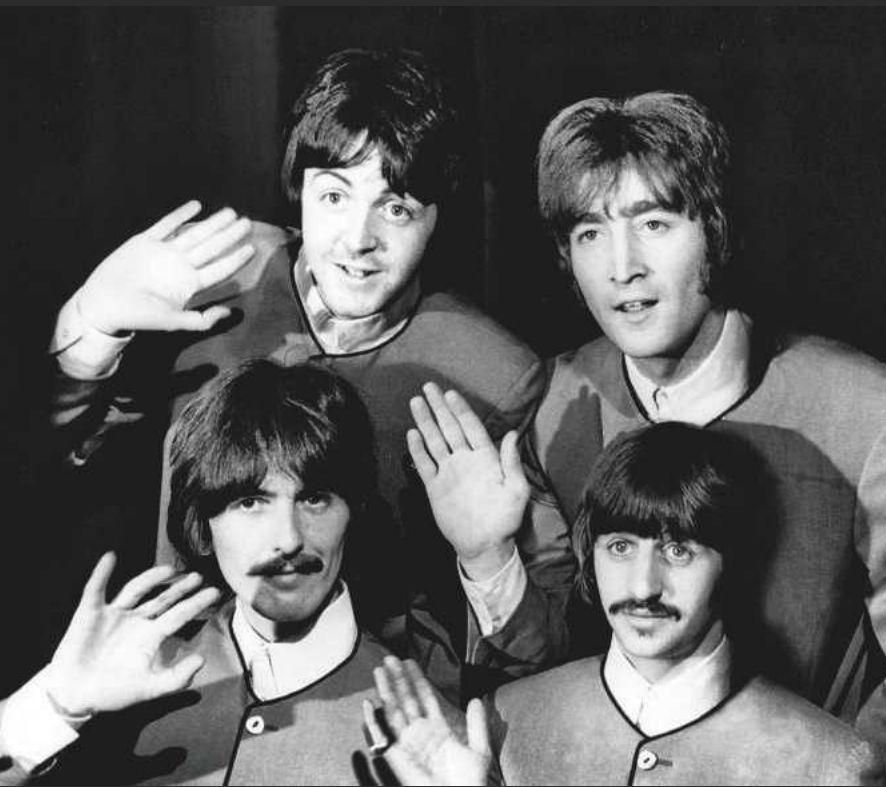
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ABOVE: A Parlophone press shot shows The Beatles in 1967, the year *Sgt Pepper's* and the non-album single 'Hello, Goodbye' were released

the sleeve, and come to your own conclusion! There's a lot of red-eyed photos around!' And John Lennon later went on to make Ringo's suggestion even clearer, stating that, 'If you look closely at the album cover, you'll see two people who are flying, and two who aren't'.

Even the album's inner sleeve, which housed the disc itself, was a significant departure from any that had preceded it. The standard in 1967 was a plain paper sleeve,

but *Sgt Pepper's* boasted a unique, abstract pattern of red, pink and white waves, designed by hip Dutch design collective The Fool, named in reference to the Fool tarot card.

PEPPER PARODIES

The influence of the *Sgt Pepper's Lonely Hearts Club Band* sleeve on subsequent album covers is hard to over-estimate. Pearl Jam, The Rutles, The Muppets, The Simpsons, Big Daddy, Bob Newhart, Macabre and many others have based parodies and homages on the Pepper cover.

'There have been insulting parodies and there have been flattering parodies', acknowledges Blake, who was knighted in 2002. 'To this day, you'll see cardboard cut-outs with photographs which come from the *Sgt Pepper's* idea. Usually I'm flattered, but I think the one The Mothers Of Invention did on *We're Only In It For The Money* was spiteful. I have never liked Frank Zappa much.' ☹

LEFT: 'Spiteful' – The Mothers Of Invention's parody sleeve for their 1968 album *We're Only In It For The Money*



COVER STORIES

The covers of the first seven Beatles albums improved dramatically as the band's success enabled them to afford better designers and photographers. For the first LP, *Please Please Me* (1963), prominent surrealist photographer Angus McBean spent barely ten minutes posing The Fabs staring down into the stairwell of EMI's HQ in London's Manchester Square (see top). Had that album bombed, McBean's hasty cover would probably now be all but forgotten. Happily, it soared to No 1 in the UK charts and remained there for 30 weeks before being replaced by the group's second LP, *With The Beatles* (1963).

This time, the snapper was photo-journalist Robert Freeman who captured an unsmiling quartet in stark black and white in Bournemouth's Palace Court Hotel. It was a striking departure for a band with a cheerful, cheeky chappie image but, although EMI hated it, The Beatles loved it and Freeman went on to shoot a further four Beatles LPs.

He delivered the 20 proofsheet-like headshots for *A Hard Day's Night* (1964), the surly autumnal image that adorned *Beatles For Sale* (1964), the semaphore-style poses of *Help!* (1965) which did not actually spell out the word 'Help', and ended his Beatles collaborations with the distorted group portrait on *Rubber Soul* (1965) – arguably their first flirtation with psychedelic artwork (see above).

It was *Revolver* (1966), however, which showed The Beatles to be in the vanguard of album art (below, middle), with its black and white collage integrating line drawings by their Hamburg bassist chum Klaus Voorman (below, top). After *Pepper*, the band astutely opted not to try to

outdo it, choosing instead a plain white cover for *The Beatles* (1968) with the band's name crookedly embossed in helvetica, just below the middle of the front sleeve.

Yellow Submarine (1969)

featured a straightforward mix of images from their animated film, and *Abbey Road* (1969) was clad in an oft-copied shot of the foursome on a zebra crossing near Abbey Road studios. *Let It Be* (1970) ended The Beatles' original discography with a set of four portraits of the individual Beatles (see left), printed onto a flimsy cardboard box that proved too insubstantial to properly hold the 160-page booklet enclosed therein.



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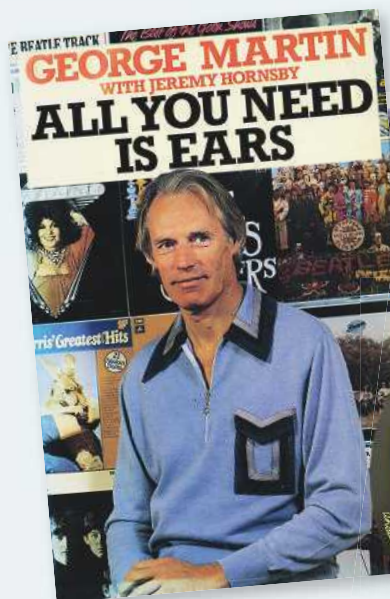
RIGHT: Left to right (clockwise) David Byrne on stage in 1978, Simon Garfield's *Expensive Habits* from 1986, *The Lives Of John Lennon* by Albert Goldman from 1988, Apple promo shot of The Beatles from the '60s, Brian Wilson during the *Pet Sounds* era, *Buddy Holly* by John Goldrosen published in 1975, Meat Loaf pictured in 1996 and *Music Of The People* by Edward Lee from 1963



Rock 'n' roll reads

Barry Fox brings you his pick of the books that offer insights into audio

BELOW: George Martin's 1979 memoir *All You Need Is Ears*, Magic Alex in the Apple Electronics lab (right), and a typical UK Apple Records label



There are enough books about rock and pop music to capsize a cruise liner. So for this third part in my series on good books that connect music to hi-fi I have picked a few of the lesser-known reads. Arguably the best starting point for pop industry insight is George Martin's 1979 biography, *All You Need Is Ears* in which Martin shares

his jaundiced views on the Apple organisation (unrelated to Apple computers, of course), which The Beatles set up in the mid '60s.

'Apple was a complete fiasco, and it cost them millions', he writes. 'I could see the awful way it was going, and that it was doomed from the outset.' Martin is good, too, on the Fab Four's cock-eyed plans for a 'spoiler' which would stop home taping. It 'worked' by putting an inaudibly high-frequency tone into the grooves of a vinyl LP. This tone would then beat with the similarly high-pitched bias signal of a tape recorder and 'spoil' any copy with an audible tone.

Magic Alex (Mardas) was the man who tried to patent the stupid spoiler.

'Of all the army of hangers-on', Martin recalled, 'the one I recall most vividly... was Magic Alex... He had ingratiated himself with John Lennon, and was so

preposterous that it would have been funny had he not caused so much embarrassment and difficulty with me in the recording studio'.


ESSENTIAL MIX

Of course, as we – the audio press – repeatedly tried to tell the music industry when it kept being suckered by similar ideas, the Alex magic would only work in a lab with men in white coats who were actively trying to make it work. We

also kept trying to remind those concerned that home-taping had an upside which David Byrne, of Talking Heads, neatly expounds in his 2012 book *How Music Works*.

'People copied their favourite songs from their LP collections [and] recorded radio programs... Record companies tried to discourage "home taping"... They mounted a huge (and fairly ineffectual) propaganda campaign that mainly served to alienate the consumer and music fan... "Home Taping Is Killing

"Apple was a complete fiasco, it cost them millions"

HOW
MUSIC
WORKS

DAVID
BYRNE

TOP: Original badge from the 1970s, given away by record companies as part of their 'Home Taping Is Killing Music' campaign

ABOVE: David Byrne's *How Music Works*, originally published in 2012 by McSweeney's

ABOVE RIGHT: Byrne (far left) pictured in the 1980s with New York rock band Talking Heads

RIGHT: The Beach Boys' album *Pet Sounds* which was released in 1966, Steven Gaines' *Heroes & Villains* first published in 1986, and Brian Wilson at work on *Pet Sounds* in Western Records studio in Hollywood

The first time Brian went out with his friends, they were in a car with no ventilation, so hot and stuffy that he used it again.'

In *Rock Stars Stole My Life*, writer and broadcaster Mark Ellen recounts an encounter with the hugely successful recording giant Meat Loaf at his surprisingly modest New England home, known to the local community as 'Loaf Ranch'.

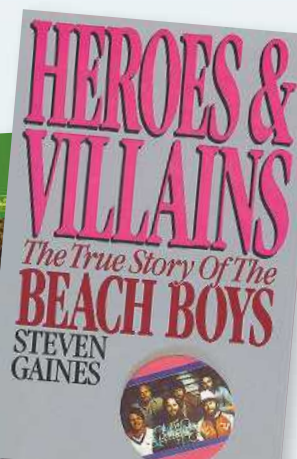
“go mental”, I was warned... I asked about the money. Big, huge mistake... “Money?” bellowed the big star. “I don’t have any money! Are you kidding? My money”, he pointed at the house, “you’re sitting in it!”.

'In 1978 my album grossed sixty-four million dollars. Let's break that down, OK? Let's say the record label get 75% so that leaves me 25%... But out of my 25%, along comes... hey, the manager! He gets 10%.' He was counting on his fingers.

“Then along comes... hey, the agent! He gets 10%. And the business manager. He gets 5%. And then you got your legal fees and they want a quarter of a million dollars. And then the government comes along and says, ‘Give us our 50%’, and out of that sixty-four million dollars you got a buck and a f***n’ half!”.

Then another noise, a station-wagon crunching up the drive. A writ claiming ownership of Loaf Ranch.’

CBS/Columbia, the company that the big star was so angry about, was at around that time run by Walter Yetnikoff. His autobiography, *Howling At The Moon*, is promoted as 'not so much kiss-and-tell as snort-and-yell... the true story of the mad genius of the music world.' ➡



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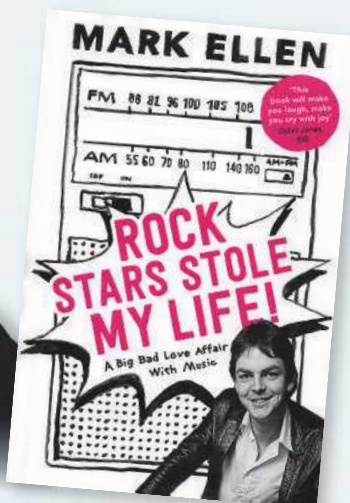
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It has some background on how Sony bought CBS. 'We flew off to Salzburg,' Yetnikoff recalls, 'where I was to meet Sony's Norio Ohga at a performance of Mozart's *Don Giovanni* conducted by Herbert von Karajan, one of Ohga's heroes...

'I had a hard time staying awake during the four-hour opera, although the subject matter – unencumbered promiscuity – was certainly dear to my heart. The thing that woke me up... was an awful grunt of pain that came from Ohga. In the middle of Act 2, [he] collapsed... At the hospital I was told he'd suffered a heart attack, a semi-regular occurrence. "I'll be fine", he said. "But I'll be even better, Walter, if you get CBS to accept our offer." The offer was eventually accepted.

'In the aftermath of the sale to Sony', Yetnikoff recounts, 'I flew into

Tokyo to see Ohga and [Sony co-founder Akio] Morita.'

NO CAN LEAVE

'Ohga and Morita took me to one of those extravagant restaurants in the Ginza where dinner is a four-hour ten-course ordeal... They drank

discreetly; I drank excessively. They had two security men accompany me back to the hotel [where] I hungered for action.

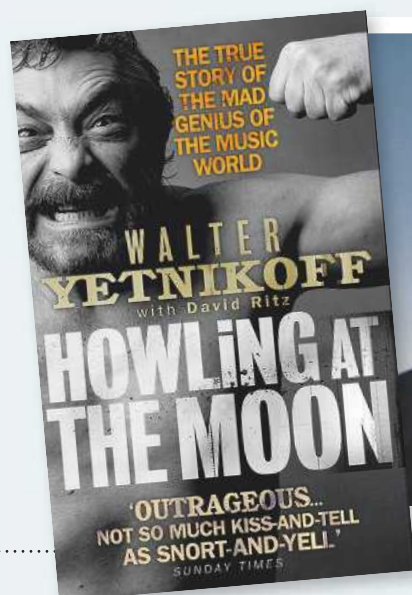
'I grabbed my jacket and headed out the door... Except

my door was locked. I kept turning the knob until, from the other side, I heard a voice. "No can leave". It was one of the security guys. "What do you mean, "no can leave?" I asked. "No can leave". I called the front desk to complain...

"We're sorry, Mr Yetnikoff", said the clerk. "But Mr Norio Ohga has stationed two gentlemen by your

“Not even Sam Phillips dared release that record”

ABOVE: Michael Lee Aday, better known as the singer Meat Loaf, pictured in 2010 (left) and (right) *Rock Stars Stole My Life* by writer and broadcaster Mark Ellen, which was published in 2014 by Hodder & Stoughton



LEFT: Walter Yetnikoff's 2005 autobiography *Howling At The Moon* and (right) Sony co-founder Norio Ohga. Yetnikoff was president of CBS Records International from 1971 to 1975 and then president and CEO of CBS Records from 1975 to 1990

MUSIC STREAMING...

The most informative read on music streaming is not a book to buy, it's a document to download for free. Go to <https://committees.parliament.uk/work/646/economics-of-music-streaming> for the transcripts of two government select committees organised by the Department for Digital, Culture, Media and Sport late last year.

Among those being gloriously frank were several music industry lawyers along with musicians including Soweto Kinch, Nile Rodgers, Guy Garvey, Ed O'Brien and Nadine Shah.

A few randomly picked comments from the document will give you the general flavour.

'Major label deals still have clauses in them for physical breakages. They used to assume that when you transported the records 10% would get broken on the road... and then work out your royalty for 90%. They are still doing that on streams.'

'I had a track on an album that was recently No 1 in the UK album charts... that track has earned me about £100.'

'It is not the streaming services that we have the problem with... it is the big three record companies... £4.2 billion paid out to the top three labels this year, in a situation where eight out of ten of us are not getting £200 a year.'

'Since signing... in 2012 we have generated over 1 billion streams but I only saw a royalty cheque for the first time in 2019... Even then we had to pay that money to the label because they said we still owed them from the touring.'

'People go to YouTube to listen to music... they are streaming 51% of the world's music. If they were a music company they would be broken up as a monopoly.'

'Neither Spotify, Apple, Tidal nor Deezer pay artists, full stop. They pay only the intermediaries, being labels, publishers or what we call aggregators, never artists or songwriters directly.'



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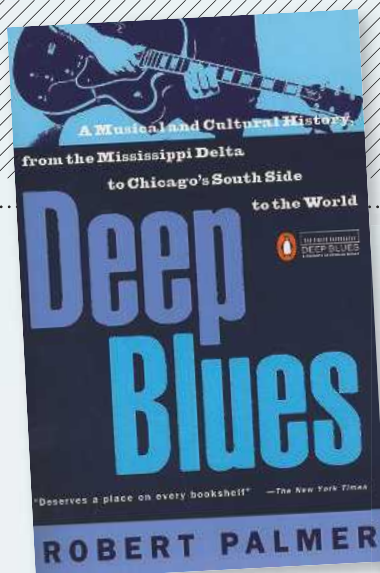
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door for your own protection... You can't go out". I understood what they were doing. They were protecting their investment... in one night on the town I could single-handedly destroy Sony's image.'

DOWN TO THE WIRE

To their credit, some of today's richest rockers – The Stones, Eric Clapton for instance – are quick to acknowledge their debt to poverty blues, originally from the Deep South plantations and then from Chicago and Memphis where the musicians went to find work in crowded clubs and bars. In *Deep Blues (A Musical and Cultural History Of The Mississippi Delta)* author Robert Palmer tells how in the early 1950s producer Sam Phillips (who kick-started Elvis Presley's career) 'made dozens of great blues records'.

'Early in 1954', Palmer recounts, 'Phillips recorded... [guitarist] Pat Auburn Hare [who] had a small Fender amp and a pretty good guitar. His pick-up was pretty powerful, and I think he had a mismatch of impedance. The guitar was so distorted it cut like barbed wire... Not even Sam Phillips dared to release that record'.

It's a funny old world. Today's musicians buy expensive equipment that can emulate every kind of



distortion while studio engineers use even more expensive equipment to capture it with the highest fidelity.

The David Byrne book (*How Music Works*) makes a good antidote to stories of rock excess. 'More Songs About Buildings And Food took three weeks to make', he recalls.

'That meant the recording costs advanced (*ie*, loaned) to us by the record company were low enough that, even with modest sales, we

were able to pay them back relatively quickly... Did we think about those costs, and did they affect the way we recorded the music? Absolutely. Limited advances acted as

a set of creative restrictions, which, for us, was generally a good thing.'

DIFFICULT DECISION

Byrne also has some interesting thoughts on using 'samples'. 'A song put together with auto-tuned vocals, squiggly synths, and an impossibly fat bass sound doesn't resemble any existing live band at all... These artists therefore have a difficult decision to make when they're expected to perform.

'Nothing on their record was played by anything that sounds like a "real" instrument, so the performance becomes a kind of karaoke spectacle with most of the sounds pre-recorded. There is never the possibility of the music rising beyond its existing programmed level (and I don't mean volume).'

Sad but true; even live pop music is now not necessarily live. ☹

LEFT: Robert Palmer's *Deep Blues*, which was originally published in 1981 (left) and Memphis guitarist Pat Auburn Hare pictured on the sleeve of the Sun single 'Bonus Pay', and label of the B side 'High!'

SIX OF THE BEST...

From memoirs to biographies, and an unsparing pen-portrait or two... here are a further six titles for those wanting to dig deeper into the backstory of rock as it has appeared in print...

Music Of The People, A Study Of Popular Music In Great Britain by Edward Lee. A book in two parts written at the end of the 1960s by a talented jazz musician and scholar who I knew in a previous

career. Part 1 looks at popular and folk music from the medieval and Tudor eras while Part 2 fast-forwards to the 20th century.

Rock Odyssey by Ian Whitcomb. Many well-written memories of the 1960s, from a writer/musician who met a lot of interesting musical people in interesting places.

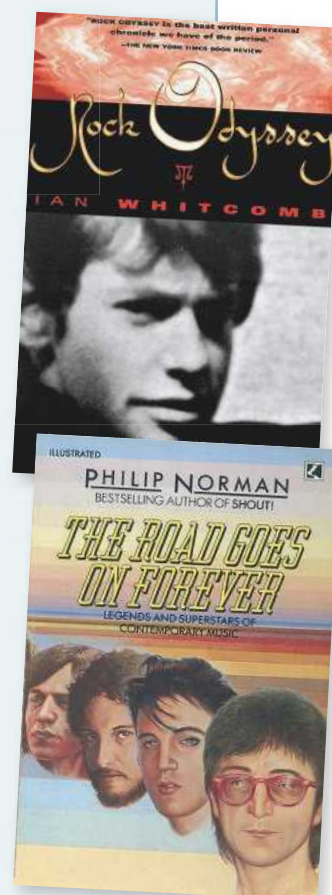
The Road Goes On Forever by Philip Norman covers some odd topics, like how Lionel Bart tried to write a pop musical with Bertrand Russell.

Expensive Habits, The Dark Side Of The Music Industry by Simon Garfield, deals with The Who's Pete Townshend and his

sax-playing father Cliff, with a lot about music industry royalty sharing – and stealing.

The Lives Of John Lennon by Albert Goldman. Either you like Goldman's imaginary fly-on-the-wall style or hate it. He has also 'done' Lenny Bruce and Elvis.

Buddy Holly by John Goldrosen is a book containing some intriguing information on the process of overdubbing before the advent of multi-track tape.



ABOVE: Ian Whitcomb's 1983 biography *Rock Odyssey*, and Philip Norman's *The Road Goes On...* from 1982

LEFT: Talking Heads' *More Songs About Buildings And Food* – a Top 30 hit in both the US and UK in 1978



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This provides powerful torque, allows precise speed control, and keeps unwanted vibrations from the drive away from the platter. A brand new tonearm, the TP 124 can be precisely adjusted in all parameters to the cartridge of choice and features an innovative anti-skating solution with a ruby bearing and a patented electric tonearm lift to facilitate gentle placement and removal of the stylus. Thorens has paid attention to every detail when developing the new TD 124 DD to ensure that it meets your highest aspirations in sound performance.



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Jadis JPL MkII/SE300B & DeVore Fidelity O/96

First from a hand-selected portfolio of 'artisan' hi-fi separates, this pairing of low output tubes with high sensitivity speakers boasts a very special synergy... and sound
 Review & Lab: **Paul Miller**

System matching remains as much an art as it does a science. There's always the easy route – opting for a collection of one-brand separates with the promise of full technical compatibility and the expectation of similar 'voicing' throughout. Slightly trickier is the pairing of components from brands that have an overlap in their core design philosophies – a route that often leads to the most satisfying musical experience but which requires a depth of knowledge on the part of both enthusiast and friendly hi-fi dealer. The third route – random component selection and a reliance on blind luck is not one we'll be pursuing here!

So distributor Absolute Sounds' recent announcement [*HFN* Feb '21] that it was to begin curating a collection of individual components from disparate brands struck a chord. This artisan/system-building project, dubbed 'Ten', kicks off with two like-minded brands from opposite sides of the pond – Jadis, from France, and DeVore Fidelity, based in New York. Nothing in common?

Far from it: Jadis has a commitment to low-powered single-ended tube amps, represented here by the SE300B monoblocks (£6498 each) and partnered with the newer £8498 JPL MkII tube preamplifier, while DeVore specialises in high-sensitivity, easy-to-drive loudspeakers [see interview sidebar, p45].

The Jadis monoblock amplifiers are rated at a mere 10W courtesy of each chassis' parallel pair of 300B triodes – single-ended and therefore necessarily operating in 'pure Class A'. DeVore's £13,500 'wide baffle' Orangutan O/96 loudspeakers have a rated 96dB sensitivity and come in lacquered ebony wood, lace walnut, wild cherry and bird's eye maple finishes, complete with

matching lacquered wooden stands. A match made in heaven? Time to find out...

FLAMBOYANT FASCIAS

With their chromed-steel chassis and gold-coloured faceplates, gold-plated brass controls, toggle switches and full-sized LED indicators, the Jadis pre/power amplifiers succeed in looking purposeful, distinctive and 'of an era' rather than ostentatious.

The JPL MkII preamp is simplicity itself with just five single-ended line inputs, a tape loop and preamp output, all on RCAs. There's no remote but the mute toggle is very useful and the beautifully weighted, detented volume control is a real delight to use. As I discuss in my Lab Report [p43] the JPL MkII is really two preamps in one – the four higher gain line inputs employing a pair of ECC83 triodes while the one marked 'CD' uses a single ECC82. All the tubes are

"Hi-fi is fun,
and gibbons
are funky
and fun too"



RIGHT: Front of the Jadis SE300B monoblock showing PSU transformer [with chrome top] plus two 5U4GB rectifier tubes and blue PSU electrolytics [behind]

ABOVE: Rear of the SE300B showing RCA line input, gold-plated 4mm speaker outputs, 6SN7 driver tube and pair of 300B power triodes



LEFT: The O/96's fibreboard cabinets are fronted by a 1in-thick US-made Baltic birch baffle. The 250mm bass/mid unit features a Kurt Müller blue paper cone, joined here by a 28mm silk dome

lean over them with a cup or glass of liquid of any kind in your hand...

The rear of the chassis hosts an RCA input and single set of 4mm speaker outlets for '4-8ohm speakers', although the transformer secondary may be reconfigured for 4ohm or less via a set of bus-bar interlinks inside the casework [see pic, p45].

ARE YOU A BELIEVER?

Now I'll address the elephant in the room – 10W for a £13,000 stereo pair? On some level, SET (Single-Ended Triode) amplifiers feed into a niche audio belief (our Ken would call it a cult) that a single 300B triode – a paralleled pair in this instance – offers a purity of performance and simplicity of design that cannot be achieved by pentodes, push-pull or ultralinear modes of operation.

Much of this is guff, of course, and I'll point out that Jadis itself is not proselytising from this particular pulpit. In practice, while a single tube and

transformer has the air of elegance about it, a successful implementation revolves almost entirely around the design – the dance between permeability, inductance, leakage, LF saturation and

HF response – of the output transformer. Jadis, by all accounts, has this nailed, with proprietary transformers 'hand-made on a digital winding machine' before being potted in a vibration-damping resin.

THE FUNKY GIBBON

Now to Jadis' partner in this delicious double act... DeVore Fidelity has two principal ranges, the more affordable and slimline Gibbon series, and the high sensitivity Orangutans of which the O/96 was the first of three models, originally launched in 2012 and still the brand's

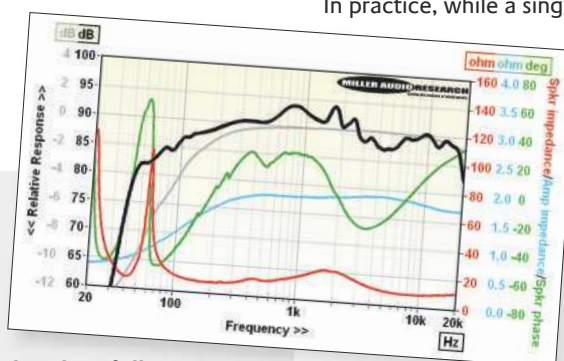
selected and matched by Jadis, including those used in the power supply, just as the passives – capacitors, resistors, etc, [see pic, p45] – have been chosen after countless hours of auditioning. 'Voicing' is a core principle of all Jadis amplifiers.

The same principles apply to the partnering SE300B monoblocks – the 300Bs are sourced from Electro Harmonix and the 6SN7 driver triodes, running at

400V here, are obtained from (I believe) a Russian supplier. Ordinarily all the tubes are protected under square, perforated cages although they can be removed (as illustrated in our pictures) if you live in a pet/child-free environment and are confident that you'll never

SYSTEM MATCHING

For its Orangutan O/96 DeVore has achieved the 'holy grail' for what is otherwise a relatively conventional (ie, not horn-loaded) two-way moving-coil loudspeaker – high sensitivity with a relatively easy-going amplifier load. The O/96's impedance [red trace, inset Graph] is toughest through the bass, but the broad 20Hz-200Hz band usefully coincides with the Jadis SE300B's lowest 0.40-1.52ohm output impedance [cyan trace]. The SE300B's source impedance rises to 1.9ohm from 400Hz-10kHz exactly where the O/96's impedance trend is >8ohm and within +19/-28° [green trace]. Otherwise the O/96's minimum impedance is still a safe 7.15ohm/190Hz coupled with a negligible -9° phase angle. And where the angles do swing to a maximum +52°/53Hz and -63°/73Hz, the impedance remains at a super-easy 31ohm and 22ohm, respectively. So the SE300Bs with their limited 2.3A maximum current and ~11W output are not especially troubled, achieving a predicted 99dBA SPL from a pair of O/96s, without boundary reinforcement, auditioned at 3m in an average listening room. In practice, the SE300B's 'shaped' source impedance [cyan trace] and unloaded response [grey trace] combine with the O/96's variable load and frequency response [Graph 1, p47] to deliver the overall system response measured here [black trace, inset Graph]. PM



inakustik

PHYSICS NOT VOODOO



"There's a lot of hand-made cable here for the money, making it a reliable bet for that first 'big upgrade'."

Paul Miller, Hi Fi News, February 2021

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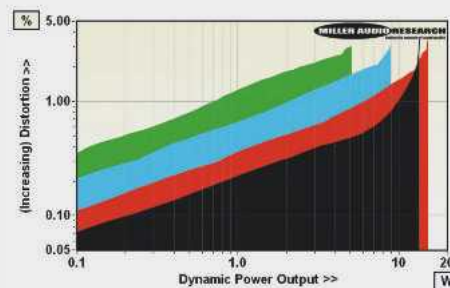
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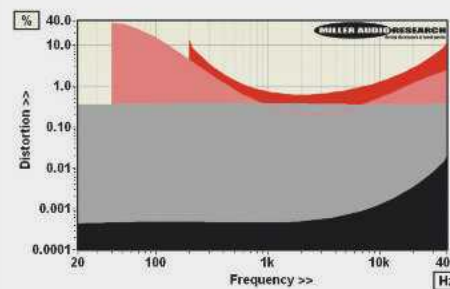
JADIS JPL MKII/SE300B

It's not part of the sales pitch, and you'll not read this in any other reviews, but Jadis is offering us two preamplifiers in one with its JPL MkII. It all comes down to the choice of CD versus Aux/Line inputs. Sure enough there's the expected difference in overall gain (+6.5dB for 'CD' and +19dB for 'Line' – neither close to the specified +25dB) and while the A-wtd S/N ratios are almost identical at 90.5dB (re. 0dBV), the difference in tube complement – a single-stage ECC82 for 'CD' and two-stage ECC83 for 'Line' – results in markedly different trends of THD vs. frequency and output. Choose 'CD' for full-on tube colour with distortion at ~0.35%, or 'Line' for a solid-state-like linearity of 0.00035-0.0035% [re. 0dBV, 20Hz-20kHz, see Graph 2]. Output impedance is a high ~950ohm (though the SE300B's 100kohm input renders this moot) while the response is slightly more rolled off via 'Line' at -0.1dB/20kHz to -2.4dB/100kHz.

While on the subject of 'colour', the partnering SE300B monos painted their test results with a vivid palette! Power output meets the rated 10W at 10.5-11.5W into 8-4ohm loads at 1% THD, increasing marginally to 14.5W at 2% THD and 15.5W at 3% THD and, under dynamic conditions, to 13.5W, 15.5W, 9.0W and 5.1W into 8, 4, 2 and 1ohm loads [see Graph 1]. Overall gain is +26dB and the A-wtd S/N ratio slightly below average at 82dB (re. 0dBV) while midband distortion increases gently with level from 0.08%/100mW to 0.22%/1W and 0.52%/5W. Versus frequency there's a steep rise in THD below 300Hz to 4.5% at 200Hz, 14.5% at 100Hz and 35% at 40Hz – all at just 1W/8ohm [pink trace, Graph 2]. I discuss the impact of the SE300B's response and output impedance with DeVore's O/96 speakers on p41. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 2.3A



ABOVE: THD vs. freq. for the Jadis JPL MkII (CD in, grey; Line in, black) vs. SE300B (1W/8ohm, pink; 5W, red)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	11.5W / 10.5W (4-8ohm tap)
Dynamic power (<3% THD, 8/4/2/1ohm)	13.5W / 15.5W / 9.0W / 5.1W
Output imp. (20Hz-20kHz, pre/power)	950ohm / 0.40-1.88ohm
Freq. resp. (20Hz-100kHz, pre/power)	+0.0 to -2.4dB / +0.1 to -12.2dB
Input sensitivity (for 0dBV/0dBW)	112mV (pre) / 141mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	90.5dB (pre) / 81.8dB (power)
Distortion (40Hz-20kHz, 1V/1W)	0.00035-0.0035%/0.21-35%
Power consumption (idle/rated o/p)	160W / 163W (28W, preamp)
Dimensions (WHD, Pre/Power)	430x175x345/203x229x531mm



ABOVE: Gold-plated rotaries for input, balance and volume stand proud of the polished gold and chrome fascia. Toggles offer source/tape monitoring and muting

top-seller. Designer/owner John DeVore has no particular 'primate fixation', he assured me, 'hi-fi should be fun and gibbons are funky and fun too. Plus, the O/96's wide orange baffle reminded me of an Orangutan'. Well, I'm pleased that's now all cleared up...

Built on an industrial park in Brooklyn, New York, the O/96's cabinets are fashioned from a mix of MDF (rear panel), MDF/ply (bottom), HDF for the sides and top, with a machined US-made Baltic birch for the 1in-thick baffle. Lace walnut is the default veneer (as pictured here) with up to ten coats of hand-polished lacquer applied across all the cabinet surfaces except the underside, the latter playing host to inset 4mm Cardas-copper speaker terminals and wooden runners that locate the speaker into DeVore's matching solid maple stands.

These are also lacquered to a glorious piano-black finish and have no metal spikes or fasteners, so the speakers are both mated and decoupled to/from the stands' surface by four small pellets of white tack at each corner. Incidentally, the standard veneer – quite stunning in its own right – is pressed in batches

BELOW: CD input offers far lower gain than the four line inputs, joined here by a tape in/out monitor loop and preamp output – all single-ended on RCAs



of 100, but custom finishes are easily accommodated as illustrated on DeVore's Facebook page.

DRIVE OF YOUR LIFE

The custom drivers are produced for DeVore by long-term partner SEAS and include a 28mm silk fabric dome tweeter and a long-throw 250mm paper-cone bass/mid driver with soft rubber surround. The treble dome works into a wool-damped rear chamber, is equipped with a double magnet and is gently horn-loaded, the flare only really taking effect below 7kHz or so [see Graph 1, p47].

The bass/mid unit is really something special and those readers steeped in audiophile lore may well recognise the classic Müller blue paper cone [see <http://www.kurtmueller.com/index.php?id=41>]. This uses a similar pulp to the larger of Tannoy's iconic coaxial drivers, untreated here except for some reinforcing lacquer at the cone's throat where it's bonded to a multi-layer copper voice-coil and Kapton former. Behind this there's a large ferrite/ceramic magnet – so no fancy rare-earth materials here.

John DeVore is somewhat less eager to release details of the O/96's crossover except to say it's a 'minimum reactance, compound-order' network derived directly from his earliest work on the first, non-commercial, Gibbon loudspeaker. ☞

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JOHN DEVORE

Founded by president and chief designer John DeVore (the self-styled 'Top Banana') in 2000, DeVore Fidelity began life – in the fashion of so many boutique brands – thanks to the passion and vision of an individual. 'With interest growing in low power 845 and 300B-based tube amplifiers in the 1990s, supplied by the likes of Cary Audio, Audio Note and Octave Audio [see p68], enthusiasts were forced towards legacy high sensitivity (horn) speakers from Klipsch, etc, to find a match' says John. 'There were no modern alternatives and the speaker landscape needed shaking up from the trend of skinny towers with lowish sensitivity.'

John was inspired to design a speaker that offered contemporary styling, high sensitivity and an easy-going 8ohm+ impedance. Aimed initially at a very local market it also 'had to work in the average New York apartment'. The form factor suggested itself – 'three-ways are so much trickier for a single-ended tube amp to drive', observed John – while the increased baffle width maintained a decent cabinet volume despite its relatively shallow depth.

And what of future projects? Most likely to see the light of day this year is a new Orangutan model, pitched above the O/96 and incorporating ideas from the flagship O/Reference, including a version of the cast bronze woofer basket and horn for the tweeter and super tweeter. 'It will look like a prettier O/96', says John, but with 'new stuff going on inside the cabinet'. Its working title is the O/Bronze. PM



Finally, should you wish to conceal this beacon of blue – the cones will likely change to a darker or greenish colour with UV and time – then DeVore also supplies a magnetically-attached grille [see pic, p46]. The frame and coarse Tygan-like fabric are not without some subjective consequence

ABOVE: Inside the JPL MkII preamp showing EL84 and EF86 tubes in the PSU [top right], a single ECC82 double-triode for the CD stage [top centre] and three ECC83 line stage triodes [left]

however, so these speakers are best enjoyed naked, if you get my drift...

While you are wondering what to wear, I'll also add that SET amps should not be left idling for too long as the full Class A current will be 'sunk' by the tubes sitting patiently amplifying the sound of silence. There's a trade-off between switch-on time, listening time and tube life so it's fortunate that the SE300Bs 'warm-up' very rapidly indeed. This also means you can swiftly find yourself immersed in the whirlwind of gossamer-light detail and rich, rolling bass developed with disarming ease by this incredible Jadis/DeVore combination. But I am jumping ahead of myself here...

ART MIMICS LIFE

Long before I had the O/96s singing so sweetly they'd reminded me of another wide-baffle two-way speaker that I used throughout the 1990s – the AN-E from Audio Note. Many of you will have seen and heard this bluff-looking but sophisticated-sounding box at hi-fi shows where its ability to cast very plausible stereo images over a wide listening area has made them a go-to choice for 'group listening'.

The O/96s have a similar ability although they are less inclined to favour a corner or near-wall siting, delivering their most open and transparent sound when positioned clear of boundaries and toed-in towards the listening position. This suggests they

LEFT: Underneath the point-to-point wired SE300B monoblock showing PSU [bottom], SE output stage [top] and impedance selector configured for 4-8ohm operation [centre]



TUBE AMP/SPEAKER SYSTEM



LEFT: The O/96 comes with a set of wooden-frame grilles that 'stick' to the lacquered baffle via four hidden magnets. Most listeners will find the loudspeakers sound better unadorned

this combination. A quality that's leveraged to typically jaw-dropping effect by, surely, every one of your favourite vocal-driven albums. If you ever wanted to contrast the vocal styles expressed in Kate Bush's *50 Words For Snow* [Fish People FPCD007; 96kHz/24-bit] with Rebecca Pidgeon's 'Spanish Harlem' [*The Raven*, Chesky; 96kHz/24-bit] and Jennifer Warnes' 'Way Down Deep' [*The Hunter*, Private Music 261974; 44.1kHz/16-bit] then this Jadis and DeVore pairing will conjure each of these performers for a very up-close and personal inspection. Every breath, every subtle sibilant, every lick of the lips – 'vivid' fails to convey the startlingly palpable presence of these voices in the room.

BREATHE THE AIR

Its reproduction of ambience and atmosphere is similarly tangible. Listening to Mike Oldfield taking a trip back down a 40-plus year-old memory lane with *Return To Ommadawn* [Mercury; 96kHz/24-bit], the progression of some 23 instruments and associated styles – an evolution of Celtic folk through to progressive pop – was also a 'living' exploration of the musical capability of the Jadis/DeVore system. There was exquisite subtlety here, and delicate shades of colour, the ambience not only immersive but also filled with pin-sharp images. And there was power too, a realistic sense of edge and bite where notes would rise without inertia and decay without haste.

It was at once lyrical, engaging and relaxing while leaving the listener in no doubt that whipcrack percussion or the surge of raw, thrilling strings could pounce at any second. The power was latent while

the atmosphere was confidently relaxed – it's a bewitchingly engaging combination.

And so, two-thirds of the way through this 21-minute tour, the room was shaken by African table drums. There was no suggestion that these under-powered SETs had lost their grip or control over the resonant impact of percussion, no loss of puff, just as there was no distorted modulation between the thrilling acoustic strings or background synth. Each layer in the multi-track was explicitly clear and utterly in harmony with its partnering

'performers', albeit played and sync'd by just one man.

Playing Devil's advocate, if you really want to catch out these components then you can. There is necessarily a limit to the available headroom, and the DeVore O/96s, sensitive though they are, can sink more power than the SE300Bs are capable of offering. Select '67000mph' by Phronesis [*Parallax*, Edition Records; 88.2kHz/24-bit] and wind up the wick just a little too far and you'll hear Anton Eger's explosive drum intro veer from taut, powerful and strikingly ambient to 'uh oh, I've bust a skin...'. Keep within its limits – loud enough for those New York apartments – and the contrast between the thump of drums and crack of sticks on rims is stunning in its separation and detail. As the remainder of this Anglo-Scandinavian jazz trio join at, well, 67000mph the double bass and piano duck and dive but never collide.

STEALTH TACTICS

Very deep, under-the-radar, bass can remain invisible to the SE300Bs. There's no segue from slam to sludge here, but listening to the 2012 remix of Massive Attack's 'Unfinished Symphony' [*Blue Lines*, Wild Bunch Records; 96kHz/24-bit] I was conscious of the opening salvo being somewhat diminished in its gravitas.

There was punch and depth here, and the anticipated firm, metronomic rhythm, but the O/96s are capable of digging deeper and lifting heavier. I know this because: 1. I measured them, and 2. I sneaked in a quick session with the Constellation Audio monoblocks...

And yet I was still eager to return to the Jadis/DeVore pairing for the sheer

'Notes rise without inertia and decay without haste'

have something of a sweet spot, broad though this is by the standards of more narrowly-focused 'skinny' speakers.

Transparency is a term all too readily bandied about in reviews, but the O/96s truly exhibit this quality. The instant you hear these boxes in action then 99% of other 'boxes' sound, well, like they need a kick up the pants to get them going. The O/96s simply do not reveal themselves as a 'sound source' – their 'touch' is so light that the faintest of notes and sounds seem to slip unhindered into the room. Whether this is a by-product of their high sensitivity, or a happy coincidence – that elusive 'synergy' with the Jadis SETs – I do not know. But, like a fixed point in space, it is a repeatable, reliable and defining quality of

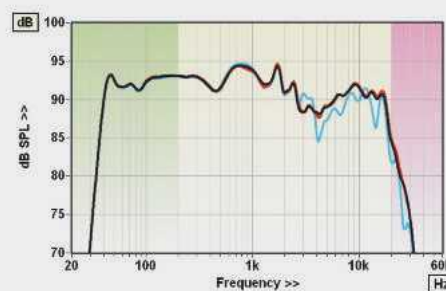


LEFT: The Jadis SE300B seen from above showing, from left to right, the AC mains transformer, a pair of 5U4GB rectifier tubes and PSU caps, the custom resin-potted output transformer, paralleled 300B triodes and single 6SN7 driver tube

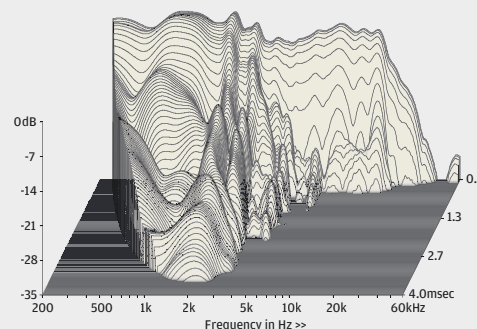
DEVORE ORANGUTAN O/96

DeVore rates the O/96's sensitivity at a high 96dB/W/m but also its nominal impedance as 10ohm which brings the specification closer to 95dB at the more usual 2.83V/1m – this was nearly met on test at 93.8dB/1kHz although the mean from 500Hz–8kHz is a lower 91.5dB. The latter reflects the O/96's strong lower midrange but mild depression through presence and lower treble [see Graph 1]. Importantly, this high sensitivity is not achieved at the expense of a punishing load, and a genuine 8ohm nominal is warranted here [see boxout, p41].

Optimum response is achieved some 6in above the tweeter axis – or head height for the 'average' listening position – where the errors amount to a moderate ± 4.8 dB (200Hz–20kHz). Pair matching is excellent at ± 0.4 dB (aside from a short-lived blip of 0.75dB/4.2kHz) but the magnetically-attached, fabric-wrapped frame grille brings its own influence, including the –3.6dB dip also at 4.2kHz and further loss through the presence and treble [blue trace, Graph 1]. Some minor resonances were detected on the impedance/phase spectra at 130–650Hz [see p41] and two linked to the 10in pulp bass/mid cone at 1.7kHz and 2.4kHz (crossover) are visible on both the forward response and the CSD waterfall [Graph 2] although THD through this critical region is exceptionally low at $<0.1\%$ (re. 90dB SPL). Aside from a –3dB dip at 450Hz – visible on both corrected nearfield and farfield responses and as a 'bump' on both impedance/phase plots – the bass unit has a flat and extended output, augmented by the clean 43Hz tuning of its two rear-firing ports to yield a steeply rolled-off but deep bass extension of 37Hz (–6dB re. 200Hz). PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w. grille, blue



ABOVE: Modes associated with the bass/mid cone are present at 1.7kHz and 2.4kHz but treble is very clean

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	93.8dB / 91.5dB / 89.3dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	7.15ohm @ 190Hz 108ohm @ 20Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–63° @ 73Hz +52° @ 53Hz
Pair matching/Resp. error (200Hz–20kHz)	0.75dB/ ± 4.9 dB/ ± 4.7 dB
LF/HF extension (–6dB ref 200Hz/10kHz)	37Hz / 19.3kHz/19.7kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.08% / 0.5%
Dimensions (HWD inc stand) / Weight (each)	902x457x254mm / 25kg



LEFT: Two 75mm reflex ports extend bass below 40Hz. The speaker locates into its matching stand via two wooden struts fitted to the underside of the cabinet [see below]

the Australian Pink Floyd Show. Again, it's this Jadis/DeVore combo's ability to resolve the exquisite fragility of the background percussion while juggling the surge of strings, the biting edge of guitar and Rick Wakeman's trademark life-of-their-own keyboards that's so, well, *exciting*.

ABRACADABRA

So while the figures for harmonic distortion [see p43] are high (and, sorry SET fans, there's as much 3rd as 2nd here) the perceived timbres of these disparate acoustic and electronic instruments are as clear as the proverbial bell, or bells. I've certainly heard many a purported low-coloration system sound more dynamically compressed,

less spatially coherent and plainly more muddled than this ostensibly leftfield combination.

It's not magic, but neither is the deeply compelling, emotionally engaging and thoroughly addictive sound of this system entirely predictable by currently received science and engineering wisdom. Which, of course, is all part and parcel of the fun and 'mystery' of hi-fi, and why we audiophiles love to mix 'n match our separates. And long may it remain so. ☺

HI-FI NEWS VERDICT

With performance aspirations seemingly well beyond its capacity, this marriage of French SET amplification with New York's least demanding loudspeakers still delivers on its promise. To every audiophile wedded to high power and statuesque floorstanders, I say this: negotiate yourself a Hall Pass and spend an evening with this baroque partnership instead. You're guaranteed a (musical) experience you'll not forget!

Sound Quality: 90%



pleasure of hearing music replayed in a fashion that almost always elicited an emotional connection. Yes, they have their foibles, but not so much that you'll find your choice of music unduly restricted.

For example, these (relatively) compact speakers are more than capable of hosting a very grand stage, as the 'Symphonic' version of Pink Floyd's *Wish You Were Here* [London Orion Orchestra; Decca 478 95 17] served to illustrate. Skip over Alice Cooper's vocal intervention to the ethereal, glittering intro of 'Shine On...'. Here the glockenspiel, strings and horns – the orchestra conducted by Peter Scholes – sets the scene for the by-now iconic four-note mantra struck up by guitarists loaned from



ABOVE: 4mm cable binding posts are inset into the base of the speaker. Batons locate the cabinet into the frame stands

Thorens TD 148A

Fully auto turntables went out of fashion in the late '70s but Thorens has the history and experience to revive the format. Is the TD 148A in the vanguard of a new trend?

Review: **Adam Smith** Lab: **Paul Miller**

While fully automatic turntables have enjoyed a long history [see boxout, p49], arguably the daddy of them all was the Thorens TD-224 from 1962. Based on the TD-124, which appeared in 1957, it was able to retrieve LPs one at a time from a stack of discs located alongside the platter.

The £1499 TD 148A sits at the top of Thorens' current range of fully auto models and bears a resemblance to the company's semi-automatic TD 1601 with TP92 arm [*HFN* Nov '20]. However, this latest auto deck is fitted with the new TP95, another cold-drawn tube with rubber/alloy damper collar fitted midway along its length. The TP95 also includes a counterweight plus spring-loaded downforce adjustment [see PM's Lab Report, p51].

The TP95's bearing housing has also been updated, sharing its styling with other Thorens models while bringing to mind those of fellow German manufacturer Dual. The reason is simple: Thorens has a production partnership with Alfred Fehrenbacher GmbH, the company behind the current range of Dual turntables, which also makes many high-quality OEM decks for other manufacturers.

SIMPLE SET-UP

However, the essential DNA of the TD 148A is unmistakably 'Thorens'. The plinth is available in gloss black and walnut finishes, while the heart of the deck is a belt-drive system powered by a 12V DC motor run from an external plugtop PSU. Three speeds are available, selected using a traditional keyhole-shaped switch situated on the front left-hand corner of the top plate.

The record sits on a felt mat atop a 2.3kg glass platter which, in turn, rests on a plastic sub-platter. Drive to this is via a polished, Thorens-branded belt from the motor. There's no shortage of torque here

and start-up time is swift, even if it's not the quietest motor I've ever encountered.

Setting up the deck is simplicity itself, but it needs to be located on a solid and level surface as the feet are neither adjustable nor especially effective at absorbing footfalls. Once positioned wisely however, it's simply a case of removing the transportation locks from the deck, fitting the belt, slipping the platter guide over the spindle and locating platter, and then placing the mat onto this.

Both tracking force and anti-skating are set using dials on and around the base of the arm's gimbal housing once the arm/cartridge has been balanced using the counterweight. The deck comes pre-fitted with a tried-and-tested Ortofon 2M Blue MM and is supplied with a self-supporting hinged dust cover

that slots into hinges that drop into cut-outs on the rear of the plinth.

ABSOLUTE MARVEL

Build quality of the TD 148A is of a high standard and, although its 7.9kg overall weight means it's not exactly a heavy

beast, it feels good to use, with all the controls being light yet positive in action. Peek inside the plinth and the mechanism is an absolute marvel of compact and efficient engineering. I suspect the main drive cog of the old

Thorens TD-224 weighed nearly as much as the TD 148A's entire mechanical internals, despite the fact they're all metal!

Operation of the deck couldn't be easier. You simply select the platter speed, set the record size lever to 30cm or 17cm

'Ortofon's 2M Blue is key to the success of this solution'



RIGHT: Seen with stiff felt mat removed, the pressed-steel subchassis, DC motor [right], belt and plastic sub-platter are all visible through the 2.3kg frosted quartz-glass platter. Note the 'damping collar' on the TP95 tonearm [far right]



and move the control lever to 'Start'. The TD 148A spins up and elegantly deposits the stylus into the lead-in groove, albeit with a bit of a thump as there is no muting facility when the mechanism is operating.

Manual start is also available – you just move the arm towards the platter to set it spinning. In either situation, when the end of the record is reached, or the control lever is moved to its 'Stop' position, the mechanism neatly lifts the arm and cartridge from the groove, returns it to the rest position and switches off the platter.

These procedures are all but foolproof, though the lack of an auto-start setting for 10in discs might be a disappointment for some, especially given that a 78rpm speed is offered. Also, the manual states that you

should set the cueing lever to 'up' before operating the automatic mechanism. However, if you do this, the arm doesn't lower until you manually move the lever to 'down'. The lever needs to be left in the 'down' position for hands-free operation.

POLISH 'N POISE

When it comes to the sound of the Thorens TD 148A the key word is consistency, the deck handling bass, mid and treble with equal sensitivity. The result, if this is not too clichéd, is a turntable package that makes it easy to forget about the hi-fi and simply enjoy the music. The choice of Ortofon's 2M Blue is key to the success of this solution for although this pick-up typically brings some added sparkle, the


ABOVE: Fitted here with Ortofon's popular 2M Blue MM, Thorens' fully-auto suspended subchassis deck offers 33.3-78rpm and is available with high gloss black or walnut plinths

Thorens TD 148A/2M Blue pairing sounds essentially neutral, suggesting the deck itself might have a slightly soft character. Had the partnering pick-up been selected from Ortofon's OM series, by contrast, then the overall result might well have sounded a little too relaxed, lacking incisiveness.

Not so here, as the TD 148A's top-end is both sweet and clean, the deck digging deep to ensure there's plenty of detail on hand. What's more, it's all presented with an appealing poise and polish, ensuring cymbals and high percussion rang from my PMC Twenty5.24 loudspeakers [HFN May '17] with little hint of hardness.

Even more encouraging, the violins filling Vivaldi's 'Spring' [Four Seasons; EMI CFP 40016] soared into my listening room with an appropriately thrilling energy even if this was at the loss of some subtlety. I'm a big fan of the Ortofon 2M Blue but it is, ultimately, an affordable design which can, on occasion, over-step the mark. It works so very well partnered with the TD 148A, but the combination still has limits!

REAL DEAL

That said, the TD 148A typically makes a fine fist of capturing the finer nuances of electronic and acoustic instruments. I was genuinely taken by the piano on 'Elegy' from Runrig's *The Story* [Ridge Records RR079], its warmth and richness more akin to the performance I'd expect from a 

AUTOMATIC AUDIO

In the days of 78s, which only offered around four to five minutes of music per side, the idea of automation to extend play time was quickly developed. Autochangers were most popular initially, with the Victor 10-50 of 1927 generally considered to be the first domestic model. As LPs superseded 78s in the 1950s and onwards, the necessity for multi-play became less pressing, but the automatic single-play turntable remained a popular choice.

In the 1960s, decks like the Garrard LAB80 and Thorens TD-184 proved that automation was no barrier to high quality. Furthermore, by the 1970s, a glance at any Japanese manufacturer's turntable lineup would reveal that, as quality and price went up, so did the level of automation on offer. The last hurrah for fully automated turntables came in the 1980s when linear-tracking tonearms caught on, this technology readily lending itself to true hands-free play.

The issue was always that the level of investment in such mechanisms was only recouped by high production volumes. As interest in vinyl began to fade in the 1990s, the outlay required for low sales volumes no longer added up, so manual simplicity became the order of the day. However, if automated decks are making a renewed appearance, Thorens is once again at the forefront.

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TURNTABLE



ABOVE: The new TP95 arm with cold-drawn alloy tube is a development of the earlier TP92 model. Connections at the rear of the deck are simple – RCA outs, a ground connection and jack socket for the DC PSU's flying lead

costlier LP spinner. There was just the right overhang associated with every note to evoke the feeling of an instrument in a believable acoustic.

Most impressively, however, the previous track on the album, 'Rise And Fall', showed the TD 148A to be capable of delivering decently well-focused central images. Both Bruce Guthro and Rory Macdonald were locked solidly in the centre of the soundstage when performing lead vocal parts on the track.

However, with this strong central bias can come a slight dilution in the action revealed in the far-flung edges of the soundstage. In this instance while stereo images were convincingly marshalled to the fore and far distance, the focus was on hotspots across the stage, rather than on building a big and uniform musical picture.

HAPPY FEET

Here the main lead vocals were positioned centrally, but the backing instruments and voices were somewhat anchored to the left and right speakers. It was, perhaps, not unlike listening to a three-speaker set-up of left, centre and right channels, with little in the way of overlap. As a result, the backing vocals on 'Rise And Fall' could be too easily masked by the main protagonists, rather than complementing them.

Equally, the solo piano on 'Elegy' includes some distinctive background effects heard as the foot pedals are operated. Via the TD 148A, these were pushed a little further into the background than perhaps they should, though my attention was undoubtedly drawn to the energy, once again, spilling from the body of the instrument.

The TD 148A regained plenty of ground at the low end, however, offering bass that was firm, fairly detailed and impressively tactile. Correctly sited, the deck never boomed or floundered, and was able to pick out deep bass lines with surprising ease. Sure enough, it won't quite offer the ultimate 'punch to the stomach' when fed a pounding dance beat, but its typically taut handling of rock and pop music found my feet contentedly tapping along.

UPRIGHT CHARACTER

Upper bass is arguably more vividly detailed via the TD 148A just as its excellent speed stability [see PM's Lab Report, adjacent] blesses it with a welcome and very secure 'tunefulness'. Bass guitar starts and stops cleanly, just as upright acoustic bass usually possesses the woody resonance and richness that ensures the instrument sounds believable. In this respect, the TD 148A is every inch the classic Thorens turntable. ☺

HI-FI NEWS VERDICT

The TD 148A is an appealing turntable with slick automation that is both easy to set up and user-friendly. Yes, it falls a little short of Thorens' manual decks in terms of performance, particularly when it comes to soundstaging, but compromise is the name of the game here. So I'm not entirely sure it heralds the start of a new automated revolution but, as a convenient package, it succeeds admirably.

Sound Quality: 81%

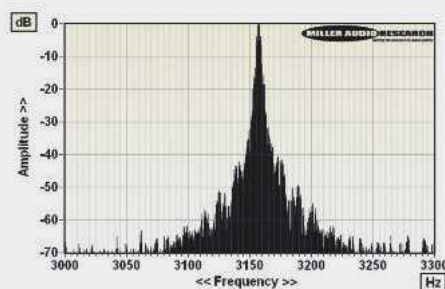


LAB REPORT

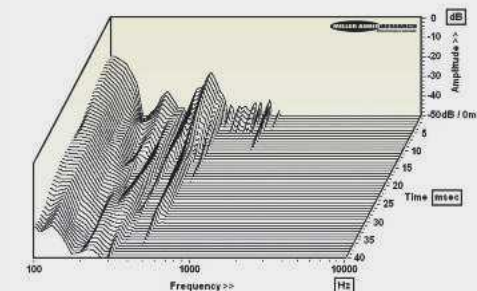
THORENS TD 148A

Unlike the semi-automatic TD 1601 [HFN Nov '20] which employs a synchronous AC motor, the fully-auto TD 148A uses a DC motor system that, bucking the trend for such solutions, suffers minimal low-rate speed drift while closely matching its AC-driven cousin with its impressively low wow and flutter – just 0.05% (peak-wtd). Higher frequency flutter components only amount to 0.03%, coinciding with the 20Hz/40Hz clusters seen on the rumble and W&F spectra [see Graph 1, below] but these and other modes between 80-120Hz and 140-170Hz push up the bearing rumble to a below-average –57.0dB (DIN-B wtd, re. 1kHz/5cm/sec). Fortunately this figure improves substantially to –65.6dB (through groove). I would endorse the supplied felt mat, but not advise using a clamp or LP weight with this deck.

The partnering TP95 tonearm is an evolution of the TP92 first fitted to the Perpetuum Ebner PE 4040 turntable [HFN Sep '17] and then upgraded in the Thorens TD 1601 [HFN Nov '20]. Unlike the TP92, the TP95 combines a rear counterweight with spring-loaded downforce, but this under-reads by 30% (so 1g = 0.7g in practice). The cold-drawn alloy tube still has a rubber/alloy ring situated midway along its length by way of controlling resonances, principal of which is the complex beam bending mode at a low 80Hz/105Hz with harmonic/twisting modes at 290Hz and 450Hz [see Graph 2]. The gimbal bearing enjoys low levels of friction (typically ~15mg) and betrays little or no play. The alloy cartridge platform bolted to the end of the light alloy tube increases its effective mass, but 10g remains ideal for the 18-20cu dynamic compliance of the supplied Ortofon 2M Blue, bringing the arm/cartridge resonance in at ~9Hz. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted ±150Hz, 5Hz per minor division)



ABOVE: Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning 100Hz-10kHz over 40msec

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.42rpm (+0.26%)
Time to audible stabilisation	2-3sec
Peak Wow/Flutter (Peak wtd)	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	–65.6dB
Rumble (through bearing, DIN B wtd)	–57.0dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–54.4dB
Power Consumption	2W (1W standby)
Dimensions (WHD) / Weight	430x140x370mm / 7.9kg

Sonus faber Maxima Amator

First floorstander in Sonus faber's Heritage range takes its Electa Amator III standmount and raises it up high
 Review: **Andrew Everard** Lab: **Paul Miller**

What have you been doing throughout the various lockdowns? Looks like the R&D team at the Sonus faber factory in Arcugnano, Italy, took the opportunity to spend some time revisiting a project it had been keeping on the back burner for a while – a two-way floorstander with a solid wood enclosure to slot into its Heritage collection above the Minima Amator II and Electa Amator III [HFN Jul '19] standmount models.

The concept of the £14,500 Maxima Amator speaker looks simple enough: if you're going to take up floorspace with a compact speaker on a substantial stand, why not fill it with a floorstanding model? The listening-room real estate occupied is much the same at around 300x350mm (wd), and it's not even that much taller – 112cm for the Maxima versus 109.5cm for the Electa Amator III on its optional stand.

MEET THE CABINET

Rather than add a second woofer into the cabinet, Sonus faber has retained the same two-way driver complement as the standmount, allowing the 180mm air-dried cellulose pulp/fibre bass/mid unit to work into an increased cabinet volume. The custom 28mm silk-dome tweeter is the company's DAD (Damped Apex Dome) model, with a three-vane diffuser/phase plate and neodymium-magnet motor system, all loaded into a solid spruce 'labyrinth chamber' behind.

The single bass/mid unit does not have access to the entire internal void, however, because a slanted internal divider isolates the lower third of the cabinet. This is filled with a resonance-damping material, also lowering the centre of gravity, and hosts a third 'acoustically isolated' box for the new 'Interactive Fusion Filtering' crossover...

This is a series-connected crossover with its high-pass arm influencing the low-pass arm and is all-new for the Maxima

floorstander despite it employing the same drivers. In this latest speaker the crossover point is dropped to 2.1kHz from the smaller model's 2.5kHz, and the new speaker has just a single set of terminals, rather than the bi-wire/bi-amp provision elsewhere in the range. This new third-order crossover cannot be 'split' as easily.

REAR WINDOW

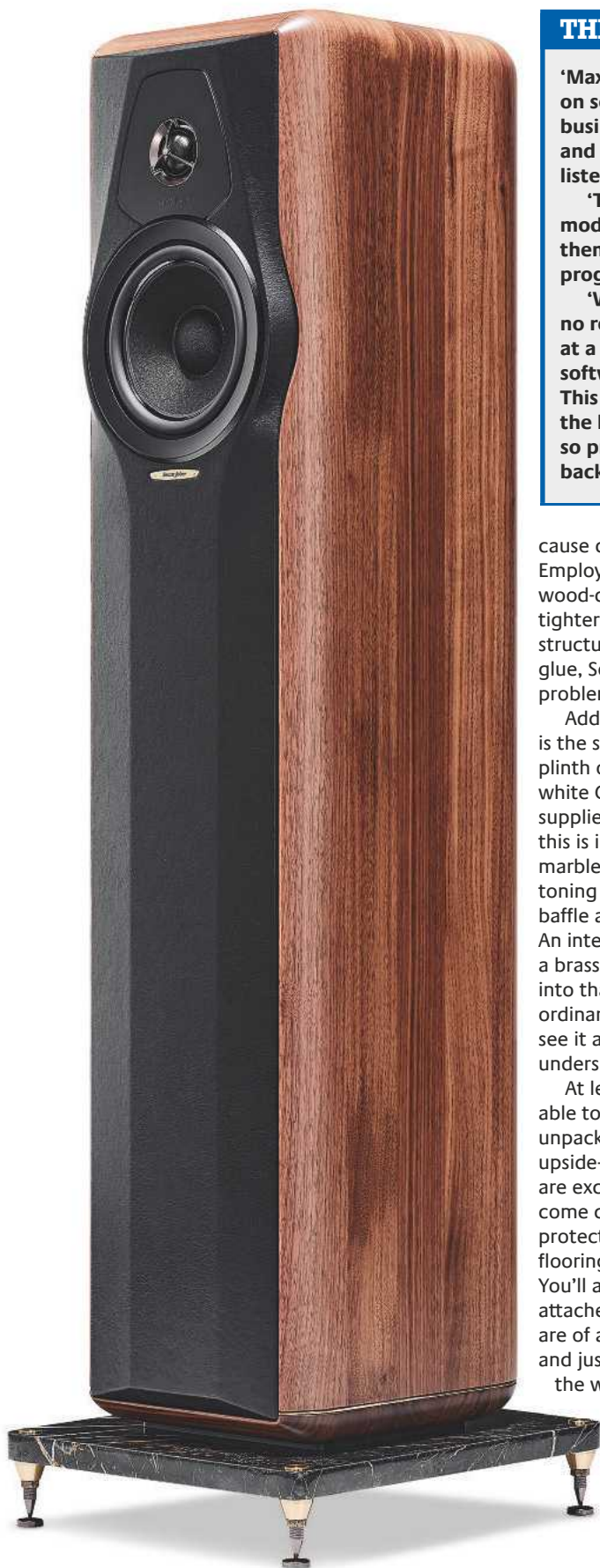
The choice of crossover components was also fine-tuned over long listening and testing sessions – Sonus faber selecting Litz wire coils impregnated with wax to damp vibrations, combined with metallised-polypropylene capacitors and non-inductive resistors. The design team are so proud of this new filter [see boxout, p53] that they've displayed it in a window at the base of the rear panel. Not unlike some Italian supercars that make a statement of their engines beneath a rear window!

What first grabs the attention about the Maxima Amator, apart from that slightly unusual 'two way in a big cabinet' design, is the sheer quality of the finish, as one might hope for the money. As is the Sonus faber way, the entire enclosure is handcrafted from solid walnut, rather than a layer of veneer over a material such as MDF or ply, giving a combination of solidity, rigidity and inertness, with the front and rear baffles finished in soft leather.

That construction is common enough on smaller Sonus faber models, but the larger ones tend to be made up from multiple layers of wood sandwiched together in a stack. The long single panels of the Maxima Amator brought their own difficulties, not least from the inevitable ageing of the wood over time which, *in extremis*, could

RIGHT: Leather-cloaked baffle, polished marble plinth and spiked gold feet all say 'Sonus faber'. The 28mm 'Arrow Point Damped Apex' tweeter and 180mm pulp and fibre mid/bass driver were debuted in the Electa Amator III





THE LOCKDOWN PROJECT

'Maxima wasn't on our 2020 product plan – it started as a challenge to work on something that reflects our personal wishes without any deadline or business plan', recalled Sonus faber's Livio Cucuzza. 'With production empty and the office silent, due to the Covid situation, we had more time to sit and listen, as a way to escape all the terrible news.'

'The idea was to follow the tradition of early two-way Sonus faber models: I've always been a fan of pure two-ways, finding them more intimate and magical with some musical programmes, of course accepting the limits they have.'

'We tried several crossover designs, and – with no restrictions on budget or timing – we arrived at a new kind of third-order filter, via simulation software, a lot of listening and some good wine! This new crossover [see inset and p55] really is the heart of the new Maxima Amator and we're so proud of it we decided to show it off on the back of the speaker.'



cause deformation or even cracking. Employing a combination of in-house wood-drying, CNC-machining to achieve tighter tolerances and the use of structural ribs attached with flexible glue, Sonus faber is confident these problems have been avoided.

Adding to the stability of the speaker is the substantial – and hefty – marble plinth on which it stands. Unlike the white Carrera marble of the stands supplied for the smaller Amator models, this is in darker Port Saint Laurent marble, quarried in Morocco and toning well with that leather-clad front baffle and the dark walnut cabinet.

An interesting touch is a brass nameplate inset into that plinth though, ordinarily, you'll never see it as it's fixed on the underside of the marble.

At least you are able to admire it while unpacking the speaker upside-down to insert the spikes, which are exceptionally well-finished and come complete with disc-shaped floor protectors should you have wooden flooring as costly as the speakers. You'll also discover small, magnetically-attached grilles in the packaging – these are of a vestigial 'inverted shield' shape, and just cover the drivers, rather than the whole length of the speakers.

'They revel in the closely observed solo instruments'



SWEET DREAMS

To understand the strengths of the Maxima Amators, you really have to ask yourself who would buy a product like this. You see, while for much of the time

they sound pretty gorgeous, they are not the one-stop solution for rockers looking to raise the rooftops! So let's deal with this caveat swiftly and with Supertramp's 'Rudy' [*Crime Of The Century*; A&M 192kHz/24-bit download] by way of example. Via the Maxima Amators, the opening sounds suitably distant, the instruments and vocals snapping into focus as the track grows, but as the momentum builds this clarity and sharpness is suppressed. There is, it seems, a dynamic 'sweet spot' for this speaker...

SNAP TO IT

What the Maxima Amators do, however, is sound just as refined and classy as

they look, provided you realise the limits of what is essentially a standmount design writ large, and your musical tastes play to their strengths. So, with the live recording of the 2019 Vienna New Year's Day Concert [Sony

19075902822] – a PM favourite as he was present in the Golden Hall of the Musikverein at the time – the speakers offer a lovely sense of smoothness and warmth, the soundstaging wide and the percussion crisp or as fragile as the occasion demands.

You might almost describe its sound as 'respectful' as evidenced, again, in the slightly reserved but dutifully controlled sound experienced with the Barenboim/Berlin Staatskapelle Orchestra recording of Elgar's *First Symphony* [Decca 4789353].

These speakers deliver the stately third movement with fine depth and weight, with a beautifully-textured string tone on the slow theme. Though it's still important not to get too exuberant with the volume. ➞

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*Reviews of the original Nucleus+, which has the same technical performance of the 2019 revision but with a different look.



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Switch to a simpler recording, such as the Andrew Manze/Rachel Podger set of Bach *Single & Double Violin Concertos* [Harmonia Mundi HMU907155], and the speakers revel in the closely observed solo instruments, while presenting the accompanying forces of The Academy of Ancient Music with a wonderfully light and delicate touch. All the performers are clearly delineated, and the music is driven along with fine snap and speed, and impressive instrumental texture.

Similarly, the sound is all about focus on a couple of crystal-clear piano recordings: with Murray Perahia's set of Chopin *Études* [Sony SK61885] every note is revealed in striking detail, without losing sight of the scale of the instruments while

LEFT: Mid/bass driver is reflex-loaded via a substantial rear-facing port while a single pair of 4mm terminals serve the two-way, third-order crossover, visible behind a transparent panel, below

Monty Alexander's take on 'Sex Machine', from his *My America* set [Telarc Jazz SACD-63552], has real weight and boogie in the rhythm section behind the piano, and excellent imaging. This is a super-clean recording that, along with the Maxima Amators themselves, really benefits from being partnered with very capable amplifiers – the Constellation Inspiration Monos [HFN Oct '19] in this instance.

WHIPCRACK TAPS

And that seems to be the story with these speakers: playing the McGarrigles' *Dancer With Bruised Knees* [Warner 7599-25958-2] the harmonies on, for example, 'Perrine Était Servante' are wonderfully delicate and breathy, with great body to the accompanying instruments. The same goes for folk group The Unthanks' 'Hawthorn' from their *Mount The Air* album [Rabble Rouser Music RRM013] where the Maxima Amators ensure these voices just hang in space in an entirely captivating manner.

Then, turning to a real demo warhorse, Antonio Forcione and Sabina Sciubba's *Meet Me In London* [Naim CD021], sees the duo's take on 'Why Can't We Live Together?' revealed here as notable not only for the power and scope of the voice as for Forcione's guitar stylings and whipcrack fretboard taps. You'd almost think it was an Italian thing! ☺

HI-FI NEWS VERDICT

Looks are not deceiving – these are elegant, classically-styled and designed loudspeakers for lovers of equally refined, classically-themed recordings. Think of them more as compact standmounts built into a floorstanding frame and you will not go far wrong. So when the Maxima Amators are in their happy place, with crisply-recorded vocals and instrumentation, they *do* sound every bit as gorgeous as they look.

Sound Quality: 85%



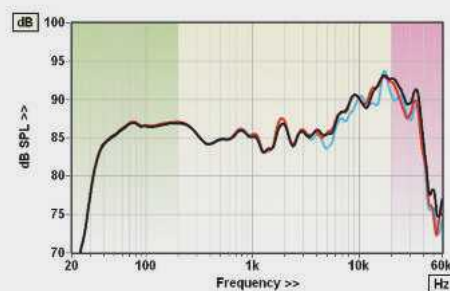
LAB REPORT

SONUS FABER MAXIMA AMATOR

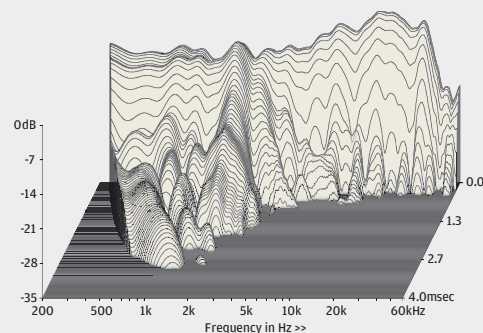
Compared with the Electra Amator III [HFN Jul '19], the Maxima's more complex third-order crossover (down from 2.5kHz to 2.1kHz) and increased cabinet volume bring improved bass extension and ease-of-drive for a slightly reduced 87dB (200Hz-20kHz) or 85.5dB (500Hz-8kHz) sensitivity. The Maxima is still a nominal 4ohm load, but its minima are *higher* at 4.0ohm/16.5kHz, 4.05ohm/142Hz and 4.5ohm/38Hz, while phase angles are 53°/55Hz and -62°/70Hz. So it's only moderately challenging!

These impedance and phase spectra also reveal a mild inflection at the ~2kHz crossover, seen as a reinforcement in the forward response [black/red traces, Graph 1] and as a dominant mode in the CSD waterfall [Graph 2] – possibly a misterrmination between the pulp bass/mid cone and its rubber surround. THD also rises slightly from the low ~0.4% achieved through bass and treble to 0.5-0.6% at this same 1-5kHz (re. 90dB SPL at 1m). Otherwise, the Amator Maxima's response trend is flat to within ±2.0dB prior to a +5dB lift above 5kHz (measured on Sonus faber's reference axis *above* the treble dome). Tearing the speakers a little off-axis will likely bring the mid and treble into balance at ~3m listening distances. Pair matching is superb at 1.0dB (200Hz-20kHz) while the small magnetically-attached grille has little adverse impact [blue trace, Graph 1].

The pulp bass/mid driver has a usefully wide 52-440Hz/-6dB bandwidth while diffraction-corrected nearfield measurement shows this combines with the higher-Q 35Hz output of the rear port (albeit with spurious modes at 240Hz and 780Hz) to deliver a generous 37Hz (-6dB re. 200Hz) bass extension. PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w. grille, blue



ABOVE: Resonances are quickly suppressed, albeit with a mode remaining near the 2.1kHz crossover [Graph 1]

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	85.1dB / 85.5dB / 84.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.0ohm @ 16.5kHz 48ohm @ 63Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-62° @ 70Hz +53° @ 55Hz
Pair matching/Resp. error (200Hz–20kHz)	1.0dB / ±4.9dB/±5.0dB
LF/HF extension (-6dB ref 200Hz/10kHz)	37Hz / 40.6kHz/38.9kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.4% / 0.55% / 0.35%
Dimensions (HWD) / Weight (each)	1120x300x350mm / 38kg

Rotel Michi X3

The 'entry-level' model in a range of two new, fully-featured Michi integrateds, the X3 is a distillation of Rotel's award-winning pre/power design with astonishing power on tap
 Review: **Andrew Everard** Lab: **Paul Miller**

This amplifier is substantial, beautifully designed and finished, powerful (rated at 350W/4ohm) and hefty, at getting on for 30kg – and yet it's the base model of two integrated amplifiers recently added to Rotel's revived Michi range. Following on the heels of the EISA Award-winning P5/S5 pre/power amplifiers [*HFN* May '20] and the M8 monoblocks [*HFN* Oct '20], the X3 and bigger X5 all-in-one amplifiers are the next stage in the expansion of this lineup. The £6300 X5 claims 600W/4ohm and while the £4300 X3 model may be 'lower powered' it's still able to deliver quite a wallop when required, offering a very impressive bang for your buck [see PM's boxout, p57, and Lab Report, p59].

Of course, sheer power isn't everything, but combining plenty of Watts with a space-efficient design and sensible pricing does seem to be something of a trend at the moment. Indeed, there are more than a few 'big integrateds' offering the kind of performance that would once have been the preserve of more conventional preamp/power amp combinations. And while the X3 is slightly wider than the hi-fi norm at 485mm, and getting on for square in plan view, it's also clearly been designed to slot into most equipment racks, standing just 150mm – that's 6in in old money – tall.

EXTRA SPECS

For an amplifier with so appealing a combination of flexibility and sheer grunt, it could almost be called svelte, an impression heightened by the mixture of matt and gloss black in its styling, which also ensures it looks 'all the money'. The styling of these reborn Michi components may be very different from the brushed metal and lacquered wood of the originals from the early 1990s, but it's remarkably successful, being both understated and

clearly able to be scaled elegantly from the big M8 monoblocks down to this rather more compact integrated model.

What's more, while the minimalism of the Michis of decades back may have given way to a more comprehensive specification, the P5, S5 and M8 demonstrate that this has been achieved without performance having been compromised – and that has clearly carried through to the X3, too. For while this integrated comes with a 'fully populated' rear panel that wouldn't seem amiss on a mainstream AV receiver, only lacking a few sets of speaker outputs and the odd HDMI socket, as well as offering that 'your move, creep' ability to grip and drive just about any speaker your throw at it, it also delivers

levels of musical involvement entirely in line with its pre/power stablemates.

BIG HITTER

Michi parent company Rotel has form in this respect. The RA-1592 [*HFN* Sep '16]

was another big-hitter and, like the X3, plenty powerful enough for enthusiasts looking to 'downsize' from a pre/power combo. The newer X3 will also handle complex multi-source systems if required: in addition to four sets of line

inputs, one of which is on balanced XLRs, it also has a rather good MM phono stage and a comprehensive lineup of digital inputs to feed its onboard 768kHz/32-bit AKM DAC. Along with three optical and three coaxial digital ins, there's also aptX

'Cue up an exuberant track and it's a whole barrel of fun'



RIGHT: Large screened transformer feeds a strictly-regulated PSU [centre], supporting the left/right bipolar power amps [far left/right]. Phono stage, line preamp and AK4490EQ-based DAC stages are on three stacked PCBs [top]



Bluetooth, and a USB-B port to enable the X3 to be fed audio from a computer. With this last connection the amp can accept audio at up to 384kHz/24-bit and DSD128 while, via coax and optical, the limit is the usual 192kHz/24-bit.

Ethernet networking and a USB-A port are also provided, but these are there for IP control of the amp, and to support firmware updates – either ‘over the air’ or via a computer download onto a thumb-drive. That’s all par for the course these days, as is the provision for RS232 control, 12V triggering and an external remote control receiver – all of which enables the X3 to be hidden away in a cupboard and driven via a custom-install set-up.

Outputs are provided for two sets of speakers and headphones, and there are also two mono subwoofer outs, and a pair of pre-outs. The last of these should best be considered as a means of adding a second power amplifier (such as the S5) to bi-amp

suitable loudspeakers. In practice the X3 is not configured to be used purely as a preamp as there’s no way to disengage the power amp section which, as PM discovered during lab testing [p59], can clip if the pre out is wound up too far.

CHARGING HARD

Naturally, no such problems occur when using the amplifier as intended – hooked up to a pair of loudspeakers and playing music as long and as loud as most of us could ever want. And you don’t need to be using ‘problem’ speakers to justify the inclusion of this amplifier in your system.

Sure, its massive power output – both continuous and dynamic – does make it especially suitable with speakers of lower sensitivity or challenging impedance, but even more impressive is its ruthless control, allied to unfettered dynamics and crisp cleanliness, even when charging hard, with just about any loudspeaker.

ABOVE: A visual clone of the Michi P5 pre, the X3’s front panel remains simple and clean with source and volume selectors flanking a large, crisp display. Headphone socket is also included

The result is a sound with clout and sparkle in equal measure, wonderfully open and detailed soundstaging where the recording permits, and reliably sharp focus and clarity. And while the X3 sounds excellent with fine recordings, whether on vinyl, CD or via a computer, there’s nothing po-faced about the sound here. Play a rough but exuberant track or two, and it’s a whole barrel of fun.

Loading up Peat & Diesel’s recent *Live At Barrowlands* 2020 set [Wee Studio WSPD 5; Bandcamp download] via Roon on a Mac mini, the X3 conveys all the excitement of the sell-out gig at the legendary venue, and the wildly enthusiastic audience clearly singing every word. Triumphant and thrilling just about sums up this live set, the Stornoway trio creating a massive sound and clearly buzzing as much as the audience on the whole experience. And the Michi X3 delivers it red in tooth and claw, from the powerful drums to the rasping vocals.

DELICATE TOUCH

Keeping it Caledonian, the gentler sound of Heron Valley’s *Erie Storm* EP (another Bandcamp download) plays to the speed and deft touch of the amplifier. The instrumental and vocal definition here is as notable as the way the rhythms drive along with a mixture of delicacy of touch and outright slam as the opening ‘Take You There’ builds from its gentle interlude in the middle section to the drive towards the end of the track. And while I’m no connoisseur of the pipes, the sheer brio of the second track, ‘Annas’, with its lead instrument set against a driving rhythm section powered by the Michi X3, would surely put a smile on any face. ☺

POWER PLAY

Rotel makes no special claim for its Michi X3 as the most power integrated available, but it could, and perhaps should, shout a little louder about this amplifier’s phenomenal W per £ performance [see Lab Report, p59]. Top performers stand the test of time – the Krell S-550i [HFN Jul ’13] offered 2x336W/8ohm with 2.4kW/1ohm (49.4A) under dynamic conditions while Musical Fidelity’s Nu-Vista 800 [HFN Nov ’14], still available at £8800, delivers 2x325W/8ohm, reinforced by a massive dynamic 2.2kW/1ohm (46.4A). Norway provides very close competition with the mighty £9000 Hegel H590 [HFN Oct ’18] which maintains 2x310W/8ohm, increasing to a dynamic 2.28kW/1ohm (47.8A).

More recently, Perreux’s £8280 Eloquence 255i [HFN Apr ’18] was tested at 2x435W/8ohm even though it is protected at 1.5kW/2ohm and 610W/1ohm (26.7A). Musical Fidelity pops up again with the all-transistor M8xi at £5650, offering 2x640W/8ohm but limited to 1300W/2ohm and 720ohm/1ohm (26.8A) under dynamic conditions. From Italy and USA, respectively, there’s the new £7800 Audia Flight FLS 9 [HFN Feb ’21] and £24,000 D’Agostino Progression [HFN Nov ’20] – priced with their DAC options – achieving 160W and 265W/8ohm, respectively, although both max out at ~1020W (31.9A) into 1ohm. Against this battery, Rotel’s £4300 Michi X3 is looking very capable indeed at 2x255W/8ohm and 1.775kW/1ohm (42.1A). So if you own the world’s least sensitive/lowest impedance speakers there’s no more affordable high power partner. PM



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INTEGRATED AMPLIFIER



ABOVE: The X3 offers MM phono, one balanced (XLR) and three RCA line ins; sub and preamp outs; three optical, three coaxial and one USB-B digital ins; trigger, RS232 and network control ports plus two sets of substantial 4mm speaker cable binding posts

I spent some time comparing the internal digital section of the amp with an external alternative, switching to the iFi Audio NEO iDSD [HFN Mar '21] connected to the X3's balanced inputs. Now, while this excellent £699 DAC maybe just had a slight edge on bite and snap with some tracks – and especially multi-DSD ones beyond the Michi X3's capability – it was a pretty close-run thing, and shouldn't detract at all from the ability of the internal digital capability here.

REAL BREEZE

Playing 'You Take My Breath Away' – yes, the Freddie Mercury song – from Belgian soprano Jodie Devos's enchanting *And Love Said...* recital [Alpha Classics ALPHA668] shows the lightness of touch of the X3, setting the voice against simple piano in an entirely credible acoustic, and letting notes hang in the air in a wonderfully affecting manner.

Then, via the sometimes offbeat logic of Roon Radio, in the next

moment the amp can turn up the wick to power through Dire Straits' 'Sultans Of Swing' [from the *Best Of...* compilation of the same title; Vertigo 558 658-2], with flat-out drive in the bass and percussion and ultra-fine detail in Knopfler's intricate guitar-work, bringing the much-heard tracks fresh and breezy all over again.

The same goes with the high-speed pianism

on Bob James's *Lost 1965 New York Studio Sessions* [2xHD Historic 2XHRRE1196; DXD], whether playing straight down the line on 'Serenata' with Bill Wood on bass and drummer Omar Clay, or hanging a little looser with Larry Rockwell and Robert Pozar on the opening tracks of the set.

The combination of great recordings and the kind of loving transcription that are the hallmark of the 2xHD project makes the music spring to life anew, and the Michi X3 has all the speed, warmth and control to make the most of it. And that held true whether with my big old PMC OB1 speakers or the smaller, faster Neat Iota Xplorer.

And if there was any doubt of the massive clean power here, a swift play of the big, magnificent LSO/ Nosedá recording of Shostakovich's 9th Symphony [LSO Live LSO0828; DSD256] shows that soundstaging, agility and massive clout off to great effect. Despite the dynamic swings involved – and you can crank the volume level as high as you want – there's no hardening of the sound or suggestion of the X3 raising a bead of sweat as it breezes through the huge musical event. ☺

HI-FI NEWS VERDICT

Combining 'drive anything' confidence with speed, warmth and the ability to switch from pile-driver to a gossamer touch when required, the Michi X3 carries its massive power lightly, and is all the more rewarding as a result. Add in its flexibility, build quality and sheer style, and you have an amp able to take on the burgeoning ranks of super-integrateds and show most of them a clean pair of heels.

Sound Quality: 87%



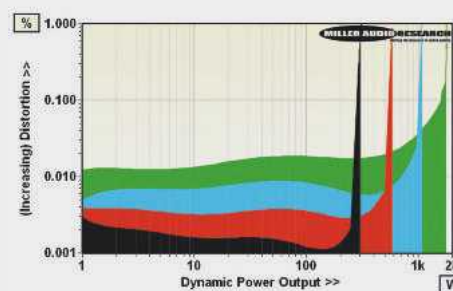
LEFT: Rotel's slim Michi remote offers access and control over the X3's comprehensive on-screen menu system

LAB REPORT

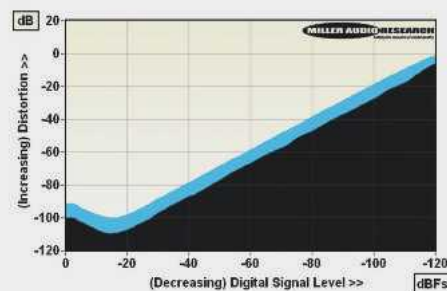
ROTEL MICHIX3

If your loudspeakers are either insensitive or present a cruel load then Rotel's Michi X3 is almost 'Hobson's Choice' at sub-£5000 [see boxout, p57]. Rated at 200W and 340W into 8/4ohm, respectively, it succeeds in delivering 2x225W and 2x425W at <1% THD with sufficient headroom galvanised by that huge PSU to support 307W, 585W, 1.1kW and 1.78kW (42.1A) into 8, 4, 2 and 1ohm loads under dynamic conditions [see Graph 1, below]. Gain is rather lower than specified at just +24dB but allows full use of the volume control with today's 4V+ (balanced) line level sources. The A-wtd S/N ratio is also below average at 80dB, albeit from a subjectively pleasing white noise than any hum from that custom toroidal transformer. Output impedance is usefully low at 0.025-0.035ohm (20Hz-5kHz) while the response reaches out to ±0.1dB from 20Hz-20kHz (and -1dB/100kHz). Finally, distortion is also low at 0.0013-0.021% (20Hz-20kHz) and tracks this trend consistently from 1W-200W/8ohm output.

Measured via the preamp RCAs at 2V output (the internal power amp clips at much above this level) the SPDIF and USB inputs are all routed via a default, steep minimum phase digital filter that has long post-echoes, a moderate 69dB stopband rejection but a very flat response that reaches out to -0.05dB/20kHz, -0.7dB/45kHz and -1.6dB/90kHz with 48kHz, 96kHz and 192kHz digital files. Jitter is acceptable at 250psec, the A-wtd S/N, again, slightly lower than expected at 103dB but low-level resolution remains true to a tight ±0.2dB over a 100dB dynamic range. While distortion is a low 0.0015-0.0045% at max/0dBfs output (20Hz-20kHz), it falls lower still to 0.0003-0.00056% at -15dBfs [see Graph 2, below]. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 42.1A



ABOVE: Distortion versus 48kHz/24-bit digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	255W / 425W
Dynamic power (<1% THD, 8/4/2/1ohm)	307W / 585W / 1080W / 1775W
Output imp. (20Hz-20kHz, Pre/Amp)	96-99ohm / 0.029-0.11ohm
Freq. response (20Hz-20kHz/100kHz)	-0.10dB to -0.12dB/-1.05dB
Digital jitter (USB / SPDIF)	250psec / 245psec
A-wtd S/N ratio (DAC/Amp)	103.0dB / 79.8dB
Distortion (DAC, 0dBfs/Amp, 10W)	0.0015-0.0045%/0.0013-0.02%
Power consumption (Idle/rated o/p)	77W / 695W (1W standby)
Dimensions (WHD) / Weight	485x150x452mm / 28.9kg

Canor CD 2.10

What is the connection between this Slovakian-built CD player/DAC and global turntable giant Pro-Ject, and does its triode tube output stage give it an edge?

Review: **Mark Craven** Lab: **Paul Miller**

In the music business, an eight-year wait between albums might give fans cause for concern and raise fears of 'issues' behind the scenes. But we have no such worries about the similar gap between Canor's latest CD player and its predecessor – it's all par for the course for this Slovakian marque. Since arriving in 1995 with the TP101 amplifier (under the brand name Edgar), this self-proclaimed tube specialist has developed a modest catalogue, always at its own pace and with little apparent attention paid to current hi-fi 'trends'. So the promise of the CD 2.10 is firmly rooted in physical CD playback, and a sound informed by Canor's love of tubes, a well-regarded DAC and its detailed attention to build and finish.

Priced £3250 and available only in the aluminium front/grey metal chassis finish that's shared across the brand's range – Canor also currently sells three integrated amplifiers and a phono preamp – the CD 2.10 is both CD spinner and standalone DAC, with the addition of digital outputs enabling it to be used as a CD transport too. Add in that tube-based analogue output stage and it becomes an intriguing hybrid that's far from commonplace in the wider hi-fi market.

CHIP OFF THE OLD BLOCK

This new player joins the pre-existing £4350 CD 1.10 [*HFN* Aug '14], a bulkier player that uses dual Burr-Brown DACs, a combination of 6922 and 12AX7 triodes in its output stage, plus a tube-rectified power supply. The CD 2.10 has a 50mm shorter and generally easier-to-accommodate 435x120x420mm (whd) chassis, is some 3kg lighter and employs the newer 'Velvet Sound' AK4490EQ DAC.

It uses a slicker StreamUnlimited Blue Tiger CD-Pro 8 CD mechanism too, with a slot-loading drive. Furthermore, the CD

2.10's PSU is all solid-state while matched pairs of 6992 valves drive the output. It's possible to finesse the analogue stage using Canor's five-way filter selection, although these are subtle in operation [see PM's Lab Report, p63].

As PM also reports [see boxout, p61], Canor has a relationship with Pro-Ject, but the company retains its own R&D. At its headquarters in the eastern Slovakian city of Prešov, tubes are burned-in, matched and tested on proprietary equipment. It also produces its own PCBs using what it calls CMT (Canor Milling Technology) in 'a long-standing endeavour to improve the sonic performance of our products'.

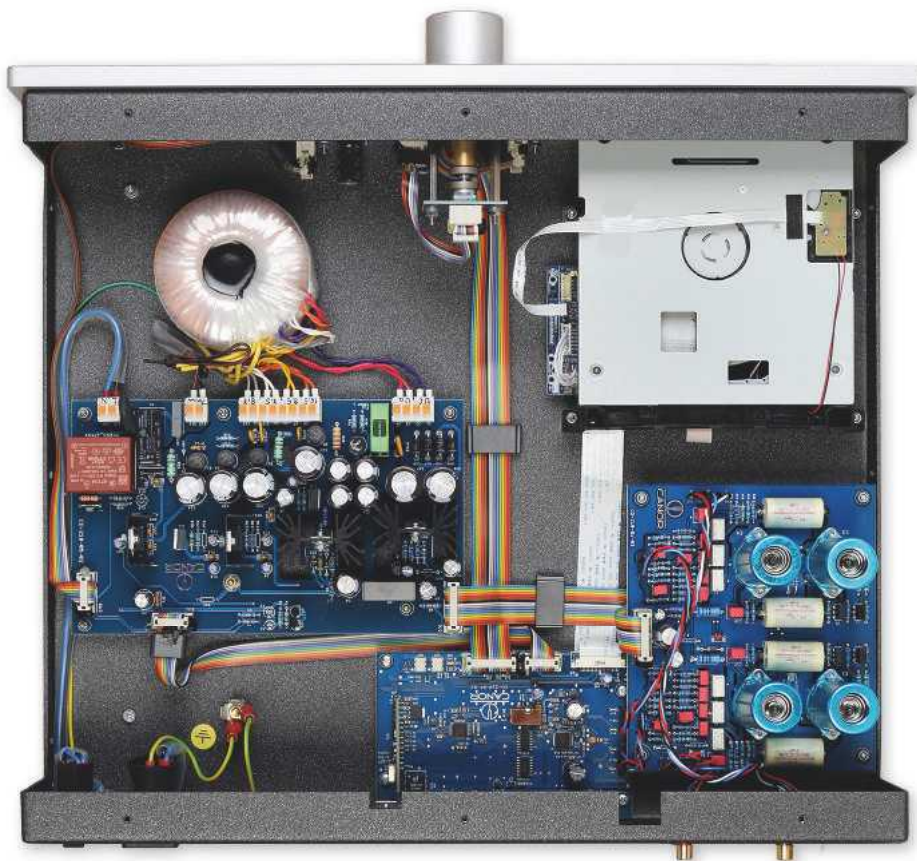
Back-panel outputs on the CD 2.10 include balanced XLR and single-ended RCAs, in addition to the aforementioned coaxial and optical outs. To feed the AK

DAC with something other than a CD, Canor provides three digital inputs – 192kHz/24-bit coaxial and optical, and USB 2.0 supporting 384kHz/24-bit PCM and DSD64 to DSD256. USB-to-Mac connections are plug 'n' play, the CD 2.10 being immediately recognised by both Tidal and Audirvana, but PC owners will need to download a separate driver.

LOVEABLE LIGHT SHOW

The rather prosaic photography on the company's website had me worried that I might not take to the look of the CD 2.1, but in the flesh it has its charms. Sure, it's bulky compared to many rivals, but it feels extremely well built and the overall styling – while far from modern – is unfussy.

The one love-it-or-hate-it element of Canor's aesthetic is probably the orange



RIGHT: Large linear PSU [left] powers up the Blue Tiger CD-Pro 8 CD mechanism from StreamUnlimited [top right], the XMOS USB/SRC43921 upsampler/AK4490EQ DAC [bottom centre] and triode tube output [bottom right]



dot-matrix display, which is wilfully retro. Whether or not the Great Wall of China is visible with the naked eye from space is debatable, but I'd give this display half a chance. It can be dimmed if necessary, but I genuinely appreciated its oversized text. Spin a CD and it shows track number and time elapsed; switch to a digital input and it displays the sample rate. Simple, but effective, and no need to squint.

While there have been changes under the hood, day-to-day operation of the CD 2.10 follows the template of the earlier CD 1.10, including the same operational foibles we reported in our review of the CD 1.10. For example, the central rotary control dial (no longer bathed in an orange ring light) offers tactile, easy manipulation over play/pause and track skipping, but eject, stop, input and filter selection are relegated to tiny front-panel buttons.

I'd suggest more joined-up thinking between these controls, and the IR remote, could make the CD 2.10 a more intuitive drive, but as Canor has made no attempt at this in eight years it presumably thinks it doesn't need to. Note that the design and layout of its aluminium-faced handset

is older still as this is a system remote also supplied with its integrated amplifiers.

A few ease-of-use grumbles then (another one being that the deck takes around 45 seconds to stir into life while its tubes are pre-heated) but – spoiler alert – when it comes to the sound of this CD player it compensates in spades.

ON SONG

Whether solely a by-product of its tube-powered analogue output, or

'It takes the edge off, like a sly G&T after a long day...'

the wider design and engineering at work here, the CD 2.10 has a sonic signature that may floor some silver disc devotees. It delivers CDs with rich detail in a layered fashion, with an impeccably drawn soundstage that projects

both front and back, yet among this precise – and dare I say 'digital' – presentation it proffers a sweet, airy and delicate touch and a plumped bottom end.

True, it doesn't particularly surge through the music, but nor is it so polite that it elicits a yawn during long listening sessions. With my fairly upbeat B&W standmount speakers and some Arcam Class G amplification, the end result was a

ABOVE: Canor's dot-matrix display is big and bold while the large rotary offers basic controls for the slot-loading transport, supplemented by small buttons [right] and remote [see p63]


performance where everything seemed on song and commensurate with the price.

With the concept of digital/tube 'hybrid' bouncing around my brain, I spun up *Hybrid Theory*, American rock band Linkin Park's 'nu-metal' genre-shaping debut [Warner Bros. Records 9362-47755-2]. The album sounded as over-produced as ever, but the Canor CD 2.10 brought a noticeable sense of well-rounded body to the set's collection of razor-wire riffs and hip-hop-infused beats, while the piano motif in standout track 'In The End' was presented with a rich and resonant tone. It was also cast wide at both ends of the stereo soundstage, seeming to envelop me while the rest of the instruments adopted a more focused, central position.

Packed with overdriven guitars and Chester Bennington straining his vocal cords in anguish, *Hybrid Theory* is the sort of album that can sound bright and brittle in the wrong circumstances. The effect of Canor's hardware was to take the edge off, like a sly G&T at the end of a long day...

A rendition of 'The Boys Are Back In Town' [*Thin Lizzy Greatest Hits*; Universal Music 9849627], was equally agreeable. This had more of a classic rock vibe to complement the Canor CD 2.1's 'classic' styling, and felt more in its wheelhouse. Bass and drums locked tightly together, beneath a sweet, refined midrange that brought out the subtleties in the track's twin guitar harmonies yet steered clear of becoming clinical. Cymbal hits were well resolved, metallic but not splashy.

CLEAR AND PRESENT

When the song finished I was in no rush to leave Phil Lynott and pals behind, so instead let the entire CD play out, using some of that time to run through the DAC's (analogue) filters. Audible differences from this slow-to-sharp quintet (each is given a name, such as Acoustic Tone or Natural )

THE PRO-JECT CONNECTION

Canor has been designing and manufacturing tube gear in Slovakia for over 25 years, with its CD players a more recent diversion. Nevertheless with the sprawling Audio Tuning Vertriebs GmbH (parent of Pro-Ject Audio Systems) also retaining a large manufacturing facility in the same region, and with some common design features shared inside the CD 2.10, I was inclined to call Pro-Ject's CEO Heinz Lichtenegger and discover whether there was any link between the brands. In practice it appears that Pro-Ject is not only Canor's dominant customer but also the driving force for the entire operation.

'One of our key designers was also on the board at Canor', says Heinz, 'and the high-tech facilities at its plant proved ideal for the production of our independently-designed separates. We have a very long history with them!' While the build of Pro-Ject's turntables has remained at its SEV Litovel factory, the sheer volume of Pro-Ject *electronics* assembled at the Canor factory now completely outstrips the production of Canor's own brand separates. As sub-contractor for what is arguably the world's leading hi-fi brand, Canor can afford to evolve its own products at a more leisurely pace! PM



Canor Audio have been developing and manufacturing high-end audio products for 25 years.

We are a tube specialist, all of our tubes are hand selected and measured on our proprietary test equipment. Once built each product is tested and burned in before it's released to the customer.

We have developed unique manufacturing technologies (high-quality wiring with Teflon insulation and CANOR Milling Technology™) to improve sonic performance to a level that will surpass your expectations.

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CD PLAYER/USB DAC



ABOVE: The CD 2.10 offers USB-B, optical and coaxial S/PDIF ins together with optical and coax digital outs, and a fixed analogue output on RCAs and balanced XLRs

Tone) were, to my ears, extremely subtle, and ultimately I alighted on no overall preference.

Switching from disc to the CD 2.10's USB input, first up was the languid electronic jazz of Massive Attack's 'Blue Lines' [2012 Mix/Master, Virgin; 96kHz/24-bit FLAC], which found Canor's DAC picking out detail with even greater purpose without losing its slightly honeyed tone. Compared to the same track played via CD, the Bristol group's punchy drums, voluminous bass notes and muted guitar lines had a greater presence – everything cut through a little cleaner and pushed forward with more intensity.

LATIN LOVER

A production trick on 'Blue Lines', whereby multiple vocals take up slightly different positions between the speakers, was beautifully conveyed, while the same group's 'Unfinished Symphony' let the CD 2.10 flex its musical muscles even more, with opulent strings layered on top of distant-sounding samples.

Better yet was the mixture of crystalline detail and delicacy unearthed in Antonio Forcione & Sabina Sciubba's 'Brasilico' [Naim Label; 192kHz/24-bit FLAC download]. Sitting down to this up-tempo Latin acoustic jam was

a sublime experience, with precise imaging, soaring melodies and an utterly convincing replication of a plucked bass string. The CD 2.10 threw a spotlight on minor musical moments – the gentle tap of Forcione's hand on his guitar body, fingers sliding along nylon – and painted a spacious, airy picture that gave Sciubba's gorgeous contralto vocals an almost ethereal feel.

HITTING THE MARK

On such a piece, the CD 2.10's somewhat diminished dynamic attack mattered little. Other times during my audition I wouldn't have minded a snappier approach, a little more kick to kick-drums, than the CD 2.10 provides. But this is purely a matter of personal taste, and getting into nit-picking territory.

In the main, while I was waiting for the wheels to fall off the CD 2.10, they never did. Across CD and digital downloads (including an evening of library shuffling via optical from a Bluesound Vault 2i music server), this machine kept hitting its mark. Its performance is almost wholly appetising, from its lush tones and resolution to precise, wide open soundstaging. ⬆

HI-FI NEWS VERDICT

CD isn't dead, it's just resting – and Canor's CD 2.10 hybrid player is here to wake it up. This lush-sounding silver disc spinner, and equally impressive DAC, will suit those who value pure performance over modern styling and operational flourishes. More svelte than its flagship sibling, and considerably more affordable to boot, it should earn the Slovakian outfit a much bigger – and much deserved – fanbase.

Sound Quality: 84%



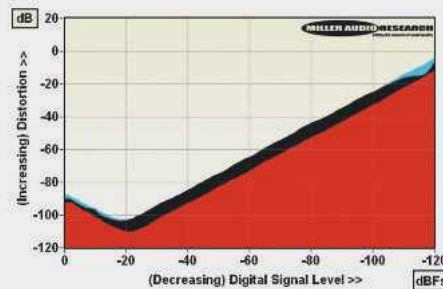
LEFT: Canor's system remote combines input and volume for its amplifiers and direct track access, track skip/scan, repeat and display adjust for the CD 2.10 player

LAB REPORT

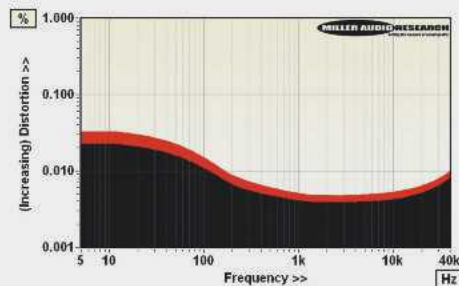
CANOR CD 2.10

It's tempting to assume Canor's use of a triode-based analogue output stage might set the tone for the CD 2.10's 'sound' but the impact of these twin 6922 tubes (per channel) is subtle. Distortion is higher than typical from a solid-state player using the AK4490 DAC [see Pro-Ject DAC Box DS2 Ultra in *HFN* Jul '16 and Hegel HD30 in *HFN* Jan '16] but a figure of ~0.005% through mid to high frequencies at its 0dBfs (peak) output of 4.08V is not especially *high*. In practice it's only about 10x higher than anticipated for this DAC, the increase at low frequencies being of greatest interest [see Graph 2, below]. This goes hand-in-hand with its sub-bass boost, so THD reaches 0.025% at 5Hz with a +3dB lift in response, to 0.02% at 20Hz where the lift is just +0.2dB. At lower output levels, with less stress on the tubes, distortion falls back to a very low 0.0002-0.0005% (200Hz-20kHz, re. -30dBfs). The consistency of its distortion vs. level vs. frequency has far greater subjective significance than the absolute level [see Graph 1, below]. As, I might add, does the impressive 110.5dB A-wtd S/N ratio, also unencumbered by tubes, and the vanishingly low 15psec jitter (S/PDIF and USB).

The AK4490EQ DAC includes a choice of five built-in digital filter coefficients, a mix of fast and slow roll-off linear and minimum phase types, as suggested by the 'Filter 1' to 'Filter 5' options available on the CD 2.10. However, only one digital filter type is actually used – the sharp roll-off linear phase – offering a superb 127dB stopband rejection with CD, at the expense of pre/post ripples in the time domain. There is a very slight difference in high sample rate responses, but this appears to be a function of the *analogue* output filter – Filter 1, -1.3dB/60kHz; Filters 2-4, -2.0dB/60kHz and Filter 5, -2.6dB/60kHz. PM



ABOVE: THD versus digital level, 24-bit/48kHz (1kHz, USB, red), 16-bit/44.1kHz (1kHz, black; 20kHz, blue)



ABOVE: THD versus frequency re. 0dBfs via USB input, 5Hz-40kHz at 24-bit/96kHz (left, black; right, red)

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.08Vrms / 120ohm (XLR)
A-wtd S/N ratio (CD / USB)	110.5dB / 110.2dB
Distortion (1kHz, 0dBfs/-30dBfs)	0.0045% / 0.00022%
Distortion & Noise (20kHz, 0dBfs/-30dBfs)	0.0051% / 0.00045%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.2dB/-1.3dB/-6.4dB
Digital jitter (CD / USB)	116psec / 15psec
Resolution @ -100dB (CD / USB)	±0.1dB / ±0.1dB
Power consumption	31W (1W standby)
Dimensions (WHD) / Weight	435x120x405mm / 12kg

AVID Boron

AVID's trio of MCs are distinguished, principally, by choice of cantilever. The mid-range model uses boron in place of ruby, saving a whopping £2000. Is this the sweet-spot?

Review: **Ken Kessler** Lab: **Paul Miller**

Here we go again: a moving-coil cartridge that costs more than I paid for a near-mint, limited-edition Series 2 Mazda MX-5.

With the rare hardtop. That said, I am sure AVID priced the Boron at £4000 for good reason, but let's skip over the entirely moot concept of 'value for money' and deal, instead, with sound quality. So the AVID Boron is the middle model in a three-cartridge lineup, and thus sells for a substantial £2000 less than the flagship Reference Ruby [*HFN* Nov '20].

Aside from a boron cantilever instead of ruby, hence the models' names, the Boron is identical to the company's flagship model, with the same micro-ridge stylus, tracking force and impedance. The entry-level Ionic has an aluminium cantilever, but an elliptical



LEFT: The Boron's packaging is modest compared to the Ruby's machined 'A-frame', but this anodised alloy drum is beautifully turned out and more secure than a pretty wooden box!

stylus, so comparisons of that model with its dearer siblings isn't simply a matter of varying cantilevers. You open up that other can of worms, which is the sound of different stylus profiles. Hey, I even know audio sages who swear by conical.

But many more of you have already experienced the underlying feature of this review, which is this – beyond any doubt, cantilever materials *can* make a big difference to performance, as demonstrated by the Boron vs. the Ruby [see PM's boxout, below].

PECKING ORDER

Here's a thought for cartridge fetishists – what no-one has yet developed, as far as I can determine, is a pecking order for which of the following is the most important in defining a cartridge's sonic character: stylus profile, cantilever material, length, magnet type, internal wiring type, body material, body removal, etc.

Each parameter, I'm certain, has its own adherents, from brand-to-brand. Ultimately, though, it is a combination of all of these, so it's as arguable as whether or not a car's tyres are more influential than the dampers or steering when it comes to handling.

AVID is not alone in differentiating its top models by cantilever. Others include Koetsu, with its diamond cantilever option, Ortofon, SoundSmith, Lyra and, of course, Dynavector, who set the whole ruby/diamond cantilever thing ablaze some 40 years ago with its DV-17D and DV-23R pick-ups.

As AVID is following a logical, manageable and valid path to model differentiation, and as other materials also work for cantilevers, there is even scope for the brand

CANTILEVER TUNING

What makes the perfect cantilever? As the 'direct link' between the stylus and groove at one end and, in an MC, the coils at the other, the ideal cantilever needs to be both very stiff and very lightweight to accurately convey the groove modulations. The mechanical behaviour of the cantilever under load, and the damping afforded by the rubber suspension at the pivot point are also crucial in determining the tracking performance of the cartridge. A fine alloy pipe remains common in MM designs where, in more sophisticated designs, the resonance of the tube and finite mass of the crimped and glued stylus-end may be employed constructively to 'tune' the HF response of the generator mechanism.

More exotic materials have proved popular in high-end pick-ups since 1979 when Dynavector launched its Karat Diamond and Ruby MCs [*HFN* Nov 1980] and Technics used a boron pipe in its more affordable EPC-205 MM [*HFN* Dec 1980 & Sep '18]. Diamond is not only the hardest natural material but its stiffness, inferred by a Young's Modulus of 1100GPa, is 2-3x that of ruby and some 15x that of aluminium, although it is slightly denser, increasing the cantilever's moving mass. Boron, while lacking the cachet of ruby or diamond, is arguably a better choice of cantilever material: it is more affordable and combines a Young's Modulus of 660GPa – still harder and 'stiffer' than ruby – with a lower density than even aluminium.

Working with boron is trickier though, for while ruby rods will accommodate a fine diamond stylus mounted through a laser-drilled hole, these same stones must be glued to the chamfered tip of a boron rod. In practice even ruby or boron cantilevers have their own unique resonances that impact on the HF performance, and sound, of the pick-up [see Lab Report, p67]. PM



to add models which fill the price gaps between the Ionic, Boron and Reference Ruby. For experienced enthusiasts there's an unexpected benefit to all of this. Thanks to other MCs using aluminium, boron, diamond, ruby, *et al*, we already know that these materials instil repeatable, characteristic sounds. What this means for the end-user, is that you can, with AVID's cartridges and others, simplify your selection process with this knowledge and, for example, rule out diamond cantilevers for a system that's a bit 'zippy' at the top, as diamond might exacerbate it.

As confirmed by PM's Lab Report [p67], the move from the Reference Ruby to the Boron goes hand-in-hand with a measurable and predictable behaviour, and there were thus few surprises. Of course, anyone spending this amount of money on a cartridge will expect a controlled demonstration, and any AVID retailer prepared to part you of £4000 or £6000 for a cartridge should be equipped for comparing the two designs.

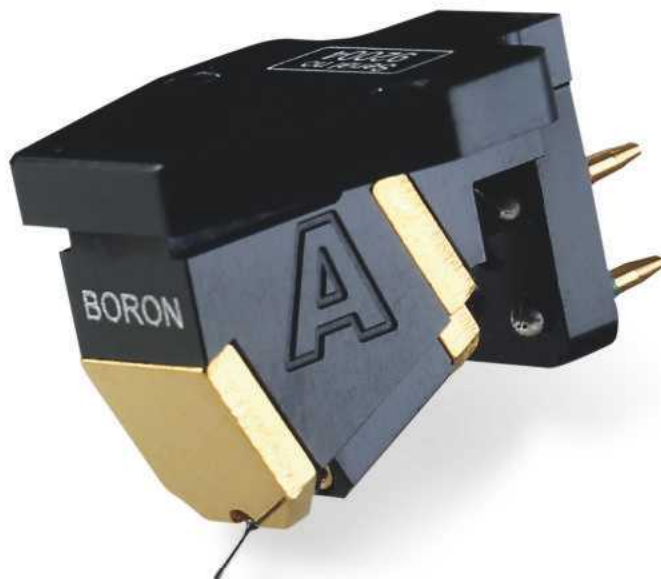
My own findings were so consistent with both PM's measurements and the aforementioned known traits of the materials that I'll present this to you not as chance to save £2000 but as a means of tuning your system. By this stage, we have accepted that we're in the loony-tunes pricing sector and that financial prudence has long been abandoned!

SILKY CUTS

Having already fitted a Reference Ruby, I was prepared for the long, exposed cantilever daring me to snap it. That threat aside, this cartridge is a dream to install, and I noted that the new stylus cover is a tight fit, as opposed to the cover of the earlier Ruby which had a tendency to slide off. Meanwhile, the flat sides aid in alignment, while the space between the underside of the cartridge and the playing surface means you have a clear view of whichever alignment template or protractor that you are using.

The Boron worked beautifully with a tracking force of 2g, and – through three different phono stages pressed into service – sounded best loaded with 100ohm. Aside from PM's observations about its actual

RIGHT: Substantial, threaded alloy mounting plate and body is shared across all three of AVID's MCs. Once again, the cantilever is very exposed but this does make for swift and accurate cueing



stylus rake angle, this is as easy to install as any high-end cartridge I can name. I also noticed more so with this cartridge than the Reference Ruby what PM describes as the 'hotter' right channel.

This was, for whatever reason, particularly noticeable on *LaVern Baker Sings Bessie Smith* [Speakers Corner/Atlantic 1281] rather than on the other LPs I used for the sessions, but not so much that I was reaching for the balance control. As an experiment, I tweaked the anti-skating, which improved matters slightly, but we are talking minute amounts.

Believe me: I am not interested in exacerbating the paranoia that is innate to many audiophiles.

Leaving such concerns to the sort who set up cartridges with laser pointers and microscopes, the rest was blissful. I knew Baker's voice intimately from years of adoring her, but this new pressing and the jazzy-

interpretations-of-blues-classics showcased her voice with the warmth cranked up a few degrees. This immediately slapped me upside the head,

LEFT: Seen end-on emerging from a gold-plated yoke, the boron cantilever is equipped with a 3x70µm 'micro-ridge' stylus – mounting and polish are first class



reminding me that I was to compare this to the Reference Ruby and the known differences in the nature of the cantilevers.

Was it the record or the cartridge?

The space, the snap, the warmth – they recalled the Reference Ruby, but with less aggressively forensic exposure. Nothing was lost – it was simply presented in a less dogmatic, less forceful way.

Because I had my doubts about expressing these differences so emphatically without using like-with-like, I dug out all of the LPs I played when auditioning the Reference Ruby pick-up and stayed with the cartridge

'The space, snap, warmth all recalled the Ruby'

feeding the EAT E-Glo phono stage, which I had set to just over 100ohm.


With notes to hand, I even repeated the Ruby listening sessions' playing order. Why? Because music determines moods and I wanted to ensure that the conditions were identical. Again, commencing with the new LP of Gene Clark's *No Other* from the extensive box set [4AD 0071 MXX], I once more heard a rich and glorious midband, but with an even silkier top-end than the Ruby's, which has its own delicious sheen.

GUT INSTINCT

As bizarre as this might seem, the disparity reminded me less of cantilever variances than the sound of different valves. If you are a tube-ophile, you will appreciate what I mean when I say the Boron sounded like a KT77 while the Ruby resembled a KT88. Subtle, obscure, minuscule, perhaps, but it was repeatable with every song, especially the gripping title track. What bothers me is the impression I might be creating, that ☺



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CARTRIDGE

RIGHT: Exposed boron cantilever is clear to see, as are the coils on the other side of the CNC laser-cut yoke. Colour-coded cartridge pins are chamfered so care is needed to ensure a snug fit

Boron versus Ruby describes some vast sonic chasm. This is not the case. I am labouring to describe such minute differences with precision so as *not* to suggest a situation that characterises the two cartridges as mutually exclusive, which I also said about the titanium-bodied TechDAS TDC01 Ti [HFN Sep '14] when I compared it to the Ruby.

They most certainly are not either/or, so you mustn't expect a quick A/B listening session to make up your mind for you. But seasoned listeners and experienced audiophiles – who else spends this kind of money on a cartridge? – will surely hear these variances through a controlled demonstration.

The trick will be hearing them through a neutral system which favours neither. My gut instinct tells me that one should audition the two through full-range electrostatic loudspeakers, driven by solid-state amps of an ice-cold mien.

ROCK SOLID

While I was dazzled by the atmosphere of menace that the AVID Ruby conveyed, the Boron nearly managed the same but with a teensy reduction in absolute stage depth. I'm in no position to confirm this was an artefact of cantilever behaviour, but it was certainly detectable. That said, the Boron's stage width and three-dimensionality perfectly matched that of the Ruby, despite the latter being a touch more open-sounding.

What proved useful about the mono pressing of The Remains' eponymous debut [Epic LN24214] was another go at experiencing PM's observation about the slight channel discrepancies, which had little effect on the precisely centralised location of the music. Perhaps I am imagining this but – and this is without recourse to using the mono button on my preamp, which I employ when listening to mono LPs – the Boron actually seemed to create a more rock-solid centre image.

That actually added to the belief that the Boron and the Ruby can co-exist peacefully in



the same catalogue (again, price notwithstanding) with more than just the top-end attack and absolute precision being their main differences. Rather, I also noted with all of the recordings that the bass was drier with the Ruby, and less forceful with the Boron. Again, it was The Remains' power track, 'Don't Look Back', with its manic percussion, that allowed me to appreciate how the two differ.

To put this into practical terms, I'd imagine the Boron would benefit those loudspeakers with ultra-tight, snappy bottom octaves, while the Ruby shines through 'bottomless-pit'-type speakers, eg, those with lots of woofers with tuned ports. With either AVID moving-coil, the bass is deep enough to satisfy a hip-hop devotee or those who listen to Kodo drums for pleasure. ☺

HI-FI NEWS VERDICT

Boron versus Reference Ruby addresses a sonic trait that's not qualitative, so scoring is identical. This exceptional cartridge is differentiated from the Ruby by being more ear-friendly and less critical of the rest of the system. In some set-ups, then, the Ruby's arch precision, attack and speed will be preferred and exploited. For a more relaxed experience, though, the Boron is the ticket. And you saved £2000...

Sound Quality: 88%

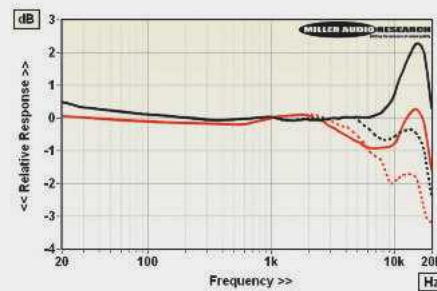


LAB REPORT

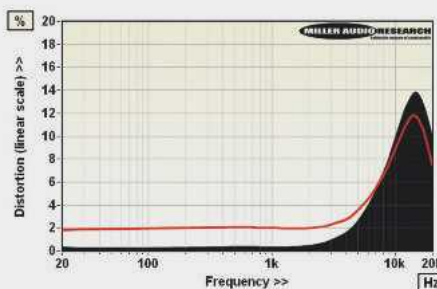
AVID BORON

This, to all intents and purposes, is AVID's flagship MC [HFN Nov '20] but with the ruby cantilever replaced by a boron rod of equivalent length [see boxout, p64]. It shares the same 3x70µm 'micro-ridge' diamond, suspension and 9g bodyweight, yielding (you guessed it) the same low 9cu compliance for compatibility with higher (11-16g) effective mass tonearms. Again, AVID has limited the coil windings – the impedance is a low 4.5ohm – to reduce its moving mass, but this also limits the output that can be generated. Its 0.32mV/1kHz (re. 5cm/sec) is identical to the Ruby, as is the 23-28dB (20Hz-20kHz) stereo separation, though channel balance was a tighter 0.1dB from this Boron sample. Once again, the Boron's VTA looks closer to 30° than the usual 20-24° and while its 'stiff' compliance is unchanged it's not quite as secure a tracker as the Ruby Reference, achieving ~70µm via the left/right channels and just letting go at the penultimate +15dB groove modulation (re. 315Hz/5cm/sec) at ~1% THD.

However, when it comes to frequency response and THD, the specific resonances and damping properties of boron versus ruby play out to yield very individual results. The slight asymmetry in AVID's generator is once again revealed in the 'hotter' right channel but here the 'kick' is a milder +2.3dB at a higher 16kHz on lateral (L+R) cuts coupled with a -0.9dB presence dip on vertical (L-R) grooves [solid traces, Graph 1]. The left channel [dashed traces] has less overall treble energy (-3.0dB and -1.6dB/20kHz, lateral and vertical) while distortion is uniformly lower on both channels compared to the Ruby. Via the right channel, HF distortion peaks at 14% via the Boron versus 20% with the Ruby (-8dB re. 5cm/sec), as illustrated in Graph 2. PM



ABOVE: Freq. resp. curves (-8dB re. 5cm/sec) lateral (L+R, black) vs. vertical (L-R, red). L channel dashed



ABOVE: Lateral (L+R, black infill) and vertical (L-R, red) tracing and generator distortion (2nd-4th harmonics) vs. frequency from 20Hz-20kHz (-8dB re. 5cm/sec)

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 9.1g
Recommended tracking force	18-22mN (20mN)
Sensitivity/balance (re. 5cm/sec)	317µV / 0.1dB
Compliance (vertical/lateral)	9cu / 8.5cu
Vertical tracking angle	30 degrees
L/R Tracking ability	70µm / 70µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.47-17.5% / 0.35-13.8%
L/R Frequency resp. (20Hz-20kHz)	+0.4 to -2.4dB / -0.2 to +2.3dB
Stereo separation (1kHz / 20kHz)	28dB / 23dB

Octave Audio V70 Class A

Stalwart of Germany's single-ended tube scene, Octave Audio also produces hybrid and push-pull amplifiers, including the 'Class A' V70 integrated featured here

Review: **Ken Kessler** Lab: **Paul Miller**

Which are you? The minimalist who wants an integrated valve amp bearing only clearly-labelled inputs, source selector, volume control and speaker terminals? Or do you prefer a 'fully loaded' device with total flexibility? The former is intuitive, and any experienced hi-fi user thinks of such units as virtually 'plug 'n' play'. Germany's 30-year-veteran brand Octave Audio has, in its V70 Class A, an amp that sits between both camps and yet I was compelled to digest its 36-page manual.

That's despite our unit being the £8500 base model without optional MM or MC phono stages (£450 per board, and the V70 takes only one so you'll need to decide which type you prefer), or either of the power-boosting capacitor banks. The £900 Black Box is 'an external Power Supply Booster', the £2500 Super Black Box 'an external Power Supply Booster with Enhanced Capacity'. This seems quite steep for outboard capacitor banks, linked to the rear of the V70 via an umbilical [p71], so I'd advise demos with and without if you're a potential purchaser. But even without these options, there's much to explain.

HANDSOME BEAST

Externally, the V70 Class A, available in black or silver, is a handsome beast let down only by the folded-steel valve cover. It's certainly robust but looks, to my eyes, like it came from some industrial heater, and not in keeping with the rest of this classy component. Visually, the V70 *sans* cover is a treat, so you could leave it off if you're in a kids/pet-free home.

Shipped with the tubes in a separate box, the first task is to remove the cover via its screws, fit the valves and refit the lid (if so desired). The front panel is control-free save for two knobs, as the power on/off rocker is on the left-hand side of the

case and the rest of the switches are on the back. The left rotary selects the source and bias-related operation, the right is the motorised volume control.

This comes with a beautifully-made remote [p71] with nice heft, which operates only the volume control. That's no hardship when one considers how rarely one needs a remote for anything else. When you change sources, you probably have to get up anyway to put on an LP or CD, streaming options notwithstanding.

In between the rotaries is a display with two columns of green LEDs and a central, horizontal row of four LEDs. This panel provides visual status of tube health, when the warm-up procedure is over, any malfunctions, etc. The left-hand column

shows the five inputs and Aux 2 becomes the phono input if either board is fitted.

ECO WARRIOR

Meanwhile, the right-hand column indicates the power-on sequence, and the choice of operation as a two-channel power amp (if incorporated into a home cinema, for example). The LEDs in the middle show individual valve status.

As soon as you look at the back of the amp, you will understand why I suggest a cup of tea and a study of the manual. The usual sockets include beefy, multi-way binding posts, an AC mains input, sufficient RCA phonos for the line sources, a pair of XLRs for a balanced source component and an earthing terminal which you'll need if

*'He makes
Bob Dylan
sound like
Dean Martin'*



RIGHT: Top view of the V70 reveals the driver tubes (a single ECC83 and two ECC81 triodes) and ceramic bases for the two pairs of KT120 pentodes. Octave's silicon-steel core wideband output transformers are fully screened [bottom]



you fit the optional phono stage. But the rest need explaining...

As seen from the back [p71], the upper left-hand corner sports a three-way toggle labelled 'Ecomode' with settings of Eco off, Eco on and Amp off. This controls the automatic shut-off system which goes into standby if there is no music signal for seven minutes. Ecomode works in conjunction with the slow-start operation from switch-on, which is monitored through the front panel display. Next is the power selector switch for 'Low 25W' and 'High 50W'. The setting is determined by the choice of output valves, more of which in a moment. Lastly, there's the special connector for either of the Black Box capacitor banks, situated next to the AC mains input.

PM discusses the 'Class A' feature of this push-pull amp in his boxout [see below] but this is not tube-specific for at the heart

of the Octave V70 Class A, shipped in standard guise, is the ever-popular KT120. Of course, Octave's V70 is not alone in handling a choice of octal-based output tubes – indeed, its V70 SE variant comes fitted with venerable 6550s.

In practice, the power selector is deployed in exactly the same way as the equivalent setting on PrimaLuna's EVO 300 [HFN Mar '21], depending on which output valve you use. For the V70, Octave specifies the 'Low' position for KT88s and 6550s and 'High' for KT120s and KT150s. I certainly wouldn't risk trying anything else as the manual cautions against it.

FEEL THE FORCE

Once you understand the start-up operation and let it settle for a minute or

ABOVE: Hot tubes are left 'naked' or protected by a substantial perforated cover [see boxout pic]. Fascia dials cater for input and volume with tube status revealed by a central LED panel

so, the V70 Class A is a dream to operate. But never be smug or complacent: I've spent hundreds of hours with KT120-equipped amps, and must admit that this doesn't deliver the sheer grunt or slam I anticipated, eg, with the powerful percussion throughout The Honeycombs' debut in the CD box *Have I The Right?* [RPM QRPMBX548] or the rich bass on Dread Zeppelin's 'Stairway To Heaven' CD single [I.R.S. DREADCD2].

This was more noticeable with Falcon Acoustics' LS3/5A [HFN Dec '18] with its limited ~82dB sensitivity, and Magnepan's LRS which has a tougher rated 4ohm impedance. But this was not simply a matter of power as the amp had no trouble driving either, rather it was more a case of perceived forcefulness. Instead, for me this marked the V70 as veering toward the refined and polite, rather



CLASS A ALL THE WAY?

Back in 1947 when the Radio Corporation of America (RCA) published its *Receiving Tube Manual*, the chapter entitled 'Amplification' defined a Class A (tube) amp as one 'in which the grid bias and alternating grid voltages are such that the plate current ... flows at all times'. Single-ended tube stages [see p41] are necessarily Class A in operation, but push-pull stages may also be run in Class A (or thereabouts) by idling the tubes midway between their cut-off point and full saturation. In this case audio current still flows through both negative and positive 'halves' of the push-pull tubes, increasing in one half above the idle bias (up to the point of saturation) while simultaneously decreasing in the other (but avoiding cut-off). The two phases are summed in the output transformer, this also affording some further reduction in even-order distortions and noise.

All else being equal a Class A push-pull stage will offer twice the power output of a single-ended stage, but this still remains very inefficient as the pairs of output tubes continue to dissipate up to full output even if there is no input signal. To improve efficiency while still operating both sets of tubes well away from their non-linear cut-off region, designer Andreas Hofmann has implemented a *sliding bias* scheme for the V70, managing the plate current according to the signal conditions. This operates in tandem with the auto-bias/tube management circuit so that no manual intervention is necessary. In a true Class A amp the idle power consumption will be high and unchanged regardless of amplifier output – in practice the V70 idles at 170W but draws a higher 230W at full output. PM

than the choice for head-banging, as might be indulged with the White Zombie's 'I Am Hell' from *The Beavis & Butt-Head Experience* [Geffen 424 613-2].

Amusingly, the V70 showed its true colours with that CD's penultimate track, Cher singing 'I Got You Babe'. Her familiar, three-octave contralto voice, sounding spectacular in this 1993 recording, oozed authenticity and there was no mistaking that wonderful liquidity her singing possesses. As for our animated heroes' chatter, it had me rolling on the floor, forcing me to dust off my DVD box-sets.

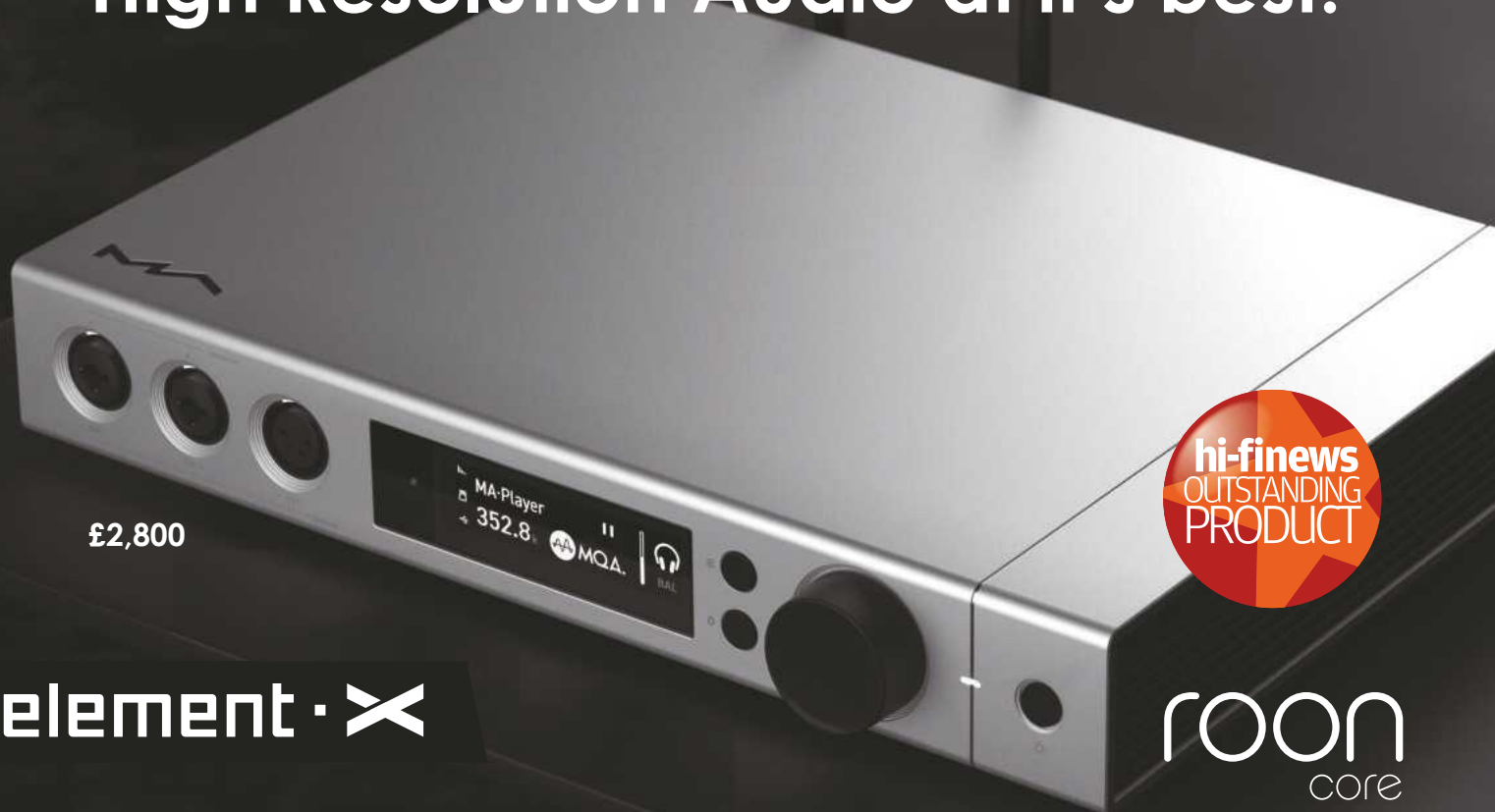
Sticking with familiar voices, of late I have been bingeing on one of the worst singers ever to achieve superstardom, someone who makes Bob Dylan sound like Dean Martin. But there's a certain

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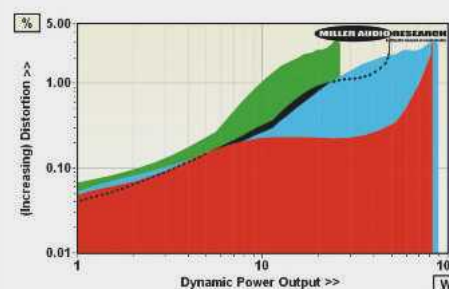
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LAB REPORT

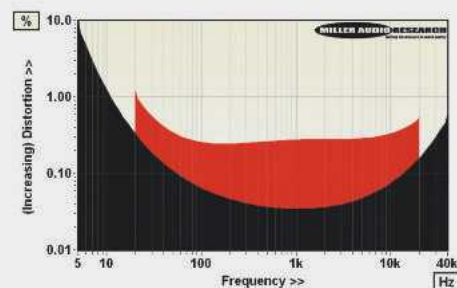
OCTAVE AUDIO V70 CLASS A

Tested in its 'High Power' setting (default for KT120 and KT150 tubes) and with 'Ecomode' off, the V70 met its 2x40W/8ohm and 2x50W/4ohm specification at 2x43W and 2x55W, respectively, once the THD limit was relaxed from 1% to 2%. The 'hard clip' point for the V70 is closer to 3% as illustrated by the dynamic output profiles [Graph 1, below] that show 50W, 80W and 88W into 8, 4 and 2ohm, with a limit of 25W into 1ohm. I discuss Octave's 'Class A' circuit innovations in my boxout [p69] but linked to this is its use of a single secondary winding, rated across 4-16ohm, in its 'wideband' silicon-steel core output transformers – hence the single set of 4mm terminals [see pic, adjacent]. In practice it looks as if the windings, and limited feedback, are optimised for 4ohm loads – as evidenced by the reduction in distortion above 10W output from 1.15% to 0.25% (re. 30W) from 8ohm to 4ohm loads [black vs. red traces, Graph 1].

As for 'wideband', the V70 certainly offers a very flat and extended response – free of the oft-seen ultrasonic transformer resonance – that reaches from -0.25dB/20Hz to +0.1dB/20kHz into 8 and 4ohm loads before peaking slightly at +0.4dB/50kHz and rolling away to -6.2dB/100kHz/8ohm (-5.8dB/100kHz/4ohm). Of course, the moderate 1.75-2.0ohm output impedance (20Hz-20kHz) will invoke far larger variations in the system response according to the variable impedance trend of the attached loudspeaker [see p41 by way of example]. Noise, too, is lower than 'average', delivering an 86dB A-wtd S/N ratio (re. 0dBW), while distortion into all loads shows the expected increase versus level and low bass frequencies at 0.45%/20Hz/1W to 0.96%/20Hz/10W [see Graph 2, below]. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max current is 6.6A



ABOVE: Distortion versus frequency at 1W/8ohm (black, 5Hz-40kHz) and 10W/8ohm (red, 20Hz-20kHz)

HI-FI NEWS SPECIFICATIONS

Power output (<2% THD, 8/4ohm)	43W / 55W
Dynamic power (<3% THD, 8/4/2/1ohm)	50W / 80W / 88W / 25W
Output impedance (20Hz-20kHz)	1.75-2.01ohm
Freq. response (20Hz-20kHz/100kHz)	-0.25dB to +0.1dB / -6.2dB
Input sensitivity (for 0dBW/40W)	88mV / 554mV
A-wtd S/N ratio (re. 0dBW/40W)	86.1dB / 102.1dB
Distortion (20Hz-20kHz, 10W)	0.24-1.18%
Power consumption (Idle/Rated o/p)	173W / 232W
Dimensions (WHD) / Weight	451x175x405mm / 23kg



ABOVE: The V70 offers optional MM or MC phono, four line inputs (one balanced on XLRs), a tape input, fixed and preamp line outs plus speaker outputs rated for 4-16ohm loads. Lockable socket is for Octave's optional 'Black Box' capacitor bank

charm to Lou Reed's smug, irritating tunelessness, and the production on *Coney Island Baby* from *Original Album Classics* [RCA 8697 30473] is exceptional. When something makes me leap from my seat, I like to credit the system as well as the recording, and 'Kicks' did just that.

TAKE NOTICE

Even if that track is familiar to you, the sudden appearance of disparate voices in various locations, like a bizarre Greek chorus, makes you sit up and take notice. What reminded me of the inherent tube virtues, which differentiate the amp from many solid-state devices, was the V70 delivering these cameo speeches in actual layers distinct from the main performance.

This is as tough a task as recreating authentic stage width or depth, and what it provides is added veracity. Far too many amplifiers are able to establish a realistically deep-sounding platform, but with everything on the same plane, like the old Viewmaster 3D slides. The V70 Class A avoids this flattening effect. With the soundstage

suddenly becoming more intriguing, having satisfied my obsession with vocal realism, I turned to the Broadway recording of *Fiddler On The Roof* on open-reel tape [RCA FTO-5032].

As hoped, the sound-space was cavernous and airy, with the performers

convincingly spread across it. Because much of this recording is spoken, more the norm with stage recordings than film scores, it was particularly revealing of the quality of the transients, avoiding sibilance and retaining the resonance of Zero Mostel's voice.

His sighs, too, in 'If I Were A Rich Man' crossed 57 years to sound as if they were happening in real-time, circa 2021. Where assorted performers were heard, as in the song 'Tradition' and other numbers with a chorus, each voice enjoyed its own spotlight – without veering toward the too-clinical. Was I warming to this, auditioned immediately after the nearly-as-clever PrimaLuna EVO 300? Almost.

It has a touch more authority if less sheer force (tube type notwithstanding), slightly greater refinement and a touch more air. But the price, without extras, bears careful consideration because one is paying for features rather than sonic performance, not least being the tube management, the extra inputs and other nice touches. If these matter to you, then add this amplifier to your shortlist. ☺

HI-FI NEWS VERDICT

If describing Octave's V70 Class A as 'cerebral' seems odd, and 'Teutonic' too obvious, then think of it as a calculated, intelligent choice for the valve lover who demands modernity. This is as far removed from vintage tubeware as any current amp I can name, with no concessions to nostalgia. The sound is pristine, yet with just enough warmth to remind you it isn't solid-state. All this and superlative build to boot.

Sound Quality: 85%



LEFT: Octave Audio's heavyweight alloy remote offers control over (motorised) volume only

Cambridge Audio SX-80

Designed by Cambridge Audio's in-house team in London, the refreshed SX-80 is a big speaker on a small budget
Review: **Mark Craven** Lab: **Paul Miller**

When it launched its Edge series in 2018 to mark its 50th Anniversary [*HFN* Nov '18], Cambridge Audio appeared to be making a concerted effort to reach a little higher. But proof this stalwart of the UK high street hasn't turned its back on wallet-conscious buyers arrived recently in the form of its reworked SX loudspeaker range. With head-turning prices, a modern finish and dimensions that won't upset your interior designer, these are likely to garner considerable interest.

The SX-80 reviewed here is the 'flagship' of the series, inverted commas necessary because it's still priced at an agreeable £399 per pair. Other options in the lineup are the SX-50 and SX-60 standmount/bookshelf models (£179 and £229, respectively), plus the SX-70 centre enclosure (£149) and SX-120 subwoofer (£199) for multichannel fans.

Such prices can make Cambridge Audio's full product portfolio feel a little unbalanced, as there's no other, more expensive, speaker lineup to ponder over. In fact, seeing as the company's loudspeaker stable consists solely of the SX series and the ultra-compact BMR-driver Minx models, plus in-ceiling and outdoor options, the SX-80 is currently the only floorstanding speaker it makes. A partner for Cambridge's £3500 Edge W power amplifier? Probably not.

BACK IN BLACK

The earlier-generation SX models escaped our attention at *HFN*, but this latest series is more of a respray than a re-engineering, with just a new matt-black finish and Cambridge Audio logo to separate them from their predecessors. Even the name remains the same, without so much as a 'MkII' suffix. The revamped colourway

is a welcome move – the previous series was available in either black or dark walnut wood veneers, and looked a little fussy. Now there's more synergy between the cabinet and speaker grille, which attaches via push-in fixings and covers approximately one half of the front baffle [see PM's Lab Report, p75].

CAN I BEND YOUR EAR?

Making good on Cambridge Audio's promise of a 'clean and understated look', the SX-80's PVC-wrapped MDF cabinet – which features 18mm-thick side walls and offers a 37-litre internal volume – is resolutely square, suggesting the CAD modelling conducted by the design team was focused on the inside, rather than the outside.

However, making up for what some will view as an unimaginative aesthetic is this speaker's easy-to-install nature. A moderate 16.9kg weight means moving the SX-80 around for performance fine-tuning is never a chore, and it comes pre-installed with its four-corner feet ready for the supplied spikes. Lace up via the solid speaker terminals and you'll be good to go in a matter of minutes.

Don't be fooled by its trio of drivers – the SX-80 is a two-way speaker, using a pair of identical bass/mid units above and below its tweeter in a D'Appolito array with a 1.6kHz crossover. Given that the speaker measures just 98cm tall, this arrangement doesn't follow the general rule of mounting a high-frequency driver at ear height – unless, perhaps, you do all your listening slumped down in your sofa.

RIGHT: A true two-way (not two-and-a-half-way) compact floorstander with vinyl-wrapped MDF cabinet hosting a pair of 165mm treated paper cone mid/bass drivers mounted D'Appolito-style above and below a 25mm silk dome tweeter

'It's admirably
capable with
tom-tom fills and
kick drums'



LOUDSPEAKER LEGACY

While Cambridge Audio began life in 1968 as a manufacturer of stereo amps, something that remains core to the brand today, its loudspeaker history dates back almost as far. In fact, 2021 is the 50th anniversary of its first model, the heavyweight (44kg) R50 transmission line. Additional transmission line speakers followed in the 1970s, and more recently it debuted BMR (Balanced Mode Radiator) drivers in its Minx, Aero and Aeromax lines. The more traditional SX series is arguably something of an outlier, and it's tempting to wonder how much its design (and that of the previous 2008-era Sirocco series) was informed by the once-iconic Mordaunt-Short speaker brand. Another UK outfit, Mordaunt-Short was acquired by Cambridge Audio's owner Audio Partnership in 1999, and continued to release a varied slate of hi-fi and multichannel products across the next decade. These days the Mordaunt-Short name lives on, but only with sub-£100 bookshelf speakers sold exclusively in Richer Sounds.

At this price point, however, it's likely that such an audiophile concern isn't of key interest to all users – how often have we seen bookshelf speakers placed well below ear-level in 'starter' systems?

Cambridge Audio says both the bass/mid driver and tweeter are bespoke to the brand and 'sourced from trusted partners'. The treble unit is a 25mm silk dome, fitted with an internal foam damper to absorb rear output and limit reflections and claimed to deliver 'a wide and effortless soundstage'. The 165mm bass/mid with its treated paper cone benefits from a 'carefully optimised' magnet system to craft what is described as a 'deep, punchy bass with high efficiency'.

Meanwhile, rated sensitivity is a fairly typical 87dB, and the speaker claims a nominal 8ohm impedance [although PM's measurements, p75, suggest 6ohm would be a fairer assessment]. And in practice, I found it easy to drive, as all affordable loudspeakers should be.



TOWER OF STRENGTH

Cambridge Audio's well-priced floorstander doesn't fall into the trap of attempting to sound like something more expensive and failing miserably. Yes, it's a tower speaker, but rather than try to blow buyers away with boisterous bass and epic scale, it majors on midrange and high frequency detail, a good balance across the audio band, and tuneful low frequencies. For £400, it's an accomplished all-rounder.

My audition did get off to rather an inauspicious start. Perhaps I was, after all, guilty of equating the speaker's 165mm driver pairing with something more impactful in terms of bass weight. 'China Grove' [The Very Best Of The Doobie Brothers; Rhino Records 8122-73384-2] sounded energetic and spacious in the mids, but Tiran Porter's bassline, while easy to follow, lacked some bite and body.

Compensation came from moving the SX-80 closer to the rear wall, down from about 1m into the room to something closer to 30cm and leaving the rear port free of the supplied foam bung. Now The Doobie Brothers' bassline sounded appreciably more robust, and toeing in the pair so cabinet sides disappeared from view yielded a tighter image too.

RUSH HOUR

I would still be hard-pressed to call this floorstander a low-frequency leviathan – it's too well-mannered in that regard. However, much of the time this was a beneficial trait, as the SX-80's bass handling meant it always sounded musical and complementary to the rest of the frequency range. Output was largely smooth down to its limits, meaning no enjoyment-killing bloat or ruinous resonances. More low-end volume would have better served club anthems and drum and bass tracks, but the SX-80 proved admirably capable with tom-tom fills and kick drums, as evidenced by the powerful, large-sounding beats of the Rush track 'Tom Sawyer' [Moving Pictures; 96kHz/24-bit FLAC download].

This track illustrated the SX-80's overall charms: a solid grasp of timing, smooth but detailed treble and a midrange of efficient expression considering the speaker's price. The swirls of the synthesiser and, in particular, Geddy Lee's unique vocals enjoyed a rich, clear, resonant tone. Similarly, Siouxsie Sioux's double-tracked voice in 'Spellbound' [Siouxsie And The Banshees, Jujus; Tidal 16-bit/44.1kHz] sounded full and well separated from the post-punk musical accompaniment.

Even with their toed-in positioning, these speakers still created a wide image with effective placement of instruments and vocals. Lining up innovative mixes, such as David Essex's 'Rock On' and the





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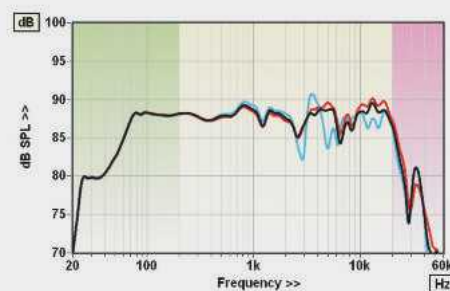
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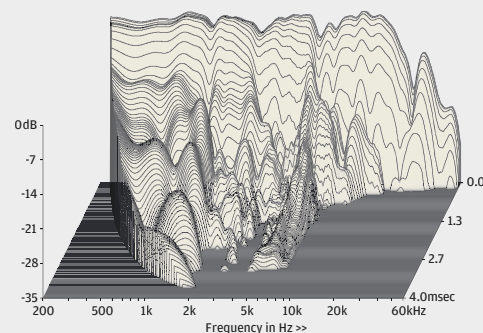
CAMBRIDGE AUDIO SX-80

This tickled-up version of Cambridge Audio's longstanding SX-80 shows relatively modest $\pm 2.6\text{dB}$ and $\pm 2.4\text{dB}$ response errors (200Hz–20kHz) combined with pair matching of $\pm 1.4\text{dB}$ (a tighter $\pm 0.9\text{dB}$ below 4kHz). So while the forward response is a little 'untidy' [see Graph 1, below] the *trend* is reasonably flat, yielding a sensitivity in excess of its 87dB specification at 87.8dB (500Hz–8kHz). The dips in response [black/red traces] are linked to resonances at 1.2kHz and 6.5kHz [see CSD waterfall, Graph 2] and at 2.6kHz with a bold discontinuity visible on both phase and impedance spectra [not shown here]. Incidentally, the frame grille has a big impact above 2.5kHz [blue trace] and should not be used for 'serious' listening.

Cambridge Audio offers an 8ohm rating for the SX-80, but a nominal 6ohm is more appropriate given the impedance minima of 5.5ohm/37Hz and 5.6ohm/149–212Hz – coinciding with the 18Hz–200Hz/–6dB bandwidth of the port – but with phase angles no greater than a few degrees. The biggest swings reach $+40^\circ$ /865Hz and -28° /24Hz where the modulus remains above 12ohm and the 'toughest' region still quite mild at 535Hz/8.0ohm/ $+35^\circ$. There's a reactive upswing at ultrasonic frequencies ($+85^\circ$ /80kHz) but the SX-80 still looks easy enough to drive with budget amps like the AXA35 [HFN Sep '19]. At the bass end of the spectrum [green shaded area, Graph 1] distortion is low at typically 0.25% (re. 90dB SPL). Meanwhile, the native –6dB roll-off of the two mid/woofers reaches 61Hz, augmented by the 27Hz output of the generously-proportioned port to yield a total diffraction-corrected bass extension of 45Hz (–6dB re. 200Hz). PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w. grille, blue



ABOVE: HF resonances are well damped leaving two modes at 1.2kHz and 6.5kHz linked to the bass cones

LEFT: Two-way 1.6kHz crossover is not split so the SX-80 hosts just a single pair of 4mm speaker cable terminals. The two bass/mid drivers are reflex-loaded via a large-diameter port at the base

the SX-80 generally acquitted itself well. The choral vocals and surging strings sounded a little dominant, so at times I felt I was straining to hear the piece's more subtle chime and woodwind elements, but the way this stereo pair built its wide soundstage, and retained its sense of detail while more instruments joined the fray, was very impressive.

PUNCH LINE

What is missing from the SX-80's arsenal is the richness of detail and tonal range of pricier, more accomplished designs. Nothing was so off-kilter to have me stop in my tracks, but on occasion – moments in the Horner piece mentioned above, and Lynyrd Skynyrd's acoustic version of 'Down South Jukin' [Endangered Species; Sony Music 82876 55128 2] – what was arriving from these floorstanders sounded like a sketch of the real thing.

This would be critical if the SX-80 cost megabucks, but as it doesn't I'm more than happy to cut it some slack. This is a loudspeaker with a love of basic rhythm – songs that pack a staccato punch while leaving breathing space between the notes are its bread and butter. It locked into the melodic stop/start riffs and simple drum track of AC/DC's 'Hold Me Back' [Stiff Upper Lip; Columbia 8869708290 2] and stomped along to a Tidal stream of Daft Punk's infectious and funky 'Get Lucky'. ☺

HI-FI NEWS VERDICT

Cambridge Audio's bargain-priced floorstander arrives with a new lick of paint but the same driver, cabinet and crossover design as before. Yet the Brit brand can be forgiven for following the 'ain't broke, don't fix' adage, as this two-way tower offers a performance that's surprisingly mature and well-balanced. It's excellent value for money and an interesting option for those bored by budget bookshelf models.

Sound Quality: 83%



ringing clocks of Pink Floyd's 'Time' [both Tidal], picking out positional details was a doddle. Less successful was the speaker's generation of depth. I found forward projection to be limited, the SX-80s preferring to set their musical stage some distance away. Certain details and instruments still occupied a space further back on the stage, but it did mean the experience could feel a little too passive at times.

With a challengingly dense composition, such as James Horner's orchestral 'A Kaleidoscope Of Mathematics' [A Beautiful Mind soundtrack; Tidal 44.1kHz/16-bit],

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	88.6dB / 87.8dB / 85.8dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	5.5ohm @ 37Hz 22ohm @ 1.5kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-28° @ 24Hz $+40^\circ$ @ 865Hz
Pair matching/Resp. error (200Hz–20kHz)	1.4dB / $\pm 2.6\text{dB}$ / $\pm 2.4\text{dB}$
LF/HF extension (–6dB ref 200Hz/10kHz)	45Hz / 23.4kHz/24.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.3% / 0.65%
Dimensions (HWD) / Weight (each)	950x200x276mm / 13kg

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BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

Igor Stravinsky *50th Anniversary*

When the Russian composer Stravinsky died in April 1971, he left a legacy of definitive recordings. Half a century on, **Peter Quantrill** finds that his music lives beyond his time

Surely one mark of genius is that even your failures turn out to be successes in the end? *The Rite Of Spring's* infamous reception at its premiere in Paris in 1913 would have sunk the confidence of a lesser composer. Many of those around him were distraught, while the impresario Serge Diaghilev stoked the flames of scandal. At the centre of it all, Stravinsky kept his head.

MASTER AT WORK

His very earliest works (a muscular Symphony in E flat, a coy little Faun and Shepherdess song-cycle and a newly rediscovered *Chant Funèbre*) reveal him as an accomplished master, who had outstripped even his teacher Rimsky-Korsakov in orchestration. As his first ballet for Diaghilev, *The Firebird* is already the work of a master. We can see and hear Stravinsky's gift for making

➔ One to hear – the latest *Rite Of Spring* sees Riccardo Chailly conduct the Lucerne Festival Orchestra [Decca 4832562]

↙ Stravinsky as drawn by Picasso in 1920. The two met in Italy in 1917, Stravinsky later sketching a five-bar piece of clarinet music for the artist



music which is colourful, graphic, witty, but which tells us nothing about the composer himself.

Show, don't tell, we writers are told. What has to be learnt painfully by some composers came as second nature to Stravinsky. He took long-distance lessons from the example of Mozart in *Così fan tutte* when writing his only full-length opera, *The Rake's Progress*, and framing an immoral comedy within a moral parable. He had Jean Cocteau's libretto for *Oedipus Rex* back-translated into Latin to distance the story from the listeners, and introduced a narrator to fill us in when the music stops. The paradoxical effect in each case is to screw up the tension and engage our sympathies even further.

The *Symphonies Of Wind Instruments* are made up of a series of different musical episodes, each cross-cut into the other, resisting the convention of continuity in music. Sometimes the edges of the cuts are joined together by transitions or marked by cadences, but usually they are abrupt, coming at a point where the statement is incomplete.

Unlike chapters, stanzas or even TV shows in this regard, each

Stravinskian episode raises the question of 'what happens next?'. They resemble apparently random cuts in the movies of Eisenstein, or perspective shifts in the Cubist paintings of Picasso, to give a sense of different angles from which the observer can form his concept of the whole: showing, not telling.

VODKA-DRY

From his early Paris days onwards, Stravinsky attracted the company of writers, painters and thinkers who found in him a friend, a fellow drinker and also the representative of a new age. Picasso and Giacometti, Cocteau, Eliot and Auden: these and other creators and thinkers recognised the force of inspiration emanating from this small man with the sharp eyes and vodka-dry wit. The same force sprang from him whenever he mounted the rostrum and raised those alarming fists.

Despite Boulez's famous dismissal of him as 'a lousy conductor', Stravinsky not only knew what he

wanted, he knew how to get it.

Rehearsal footage shows a firm, patient interpreter of his own music, equipped not with a baton or the acid tongue of a martinet such

'That word "interpreter", though – how he hated it!'

as George Szell, but an armoury of personal charm and wit. That word 'interpreter', though – how he hated it! Stravinsky took pains to decry the idea that a good performer could or should bring anything to a score beyond the skill to bring to life the marks in front of them.

In theory, then, his library of recordings for CBS should retain definitive status. Riccardo Chailly recently told me how any conductor of Stravinsky should study them



intently. However, as even the composer came to admit: 'The tempo marks one wrote 40 years ago were contemporary 40 years ago. Time is not alone in affecting tempo – circumstances do too.'

It has been suggested that the *Rite Of Spring's* opening bassoon solo should be transposed up a semitone every generation or so, to retain its original, fragile quality on the edge of unplayability. We don't have to go that far. With the experience of half a century of making music with the red light on, Stravinsky saw that technology was actually the friend of his music, rather than its enemy. In short, recordings and live performances could achieve complementary, not conflicting, ends.

Later this year, Decca will release a box of Chailly's Stravinsky recordings, made over the last 40 years. In the meanwhile, his latest *Rite Of Spring* from Lucerne [Decca



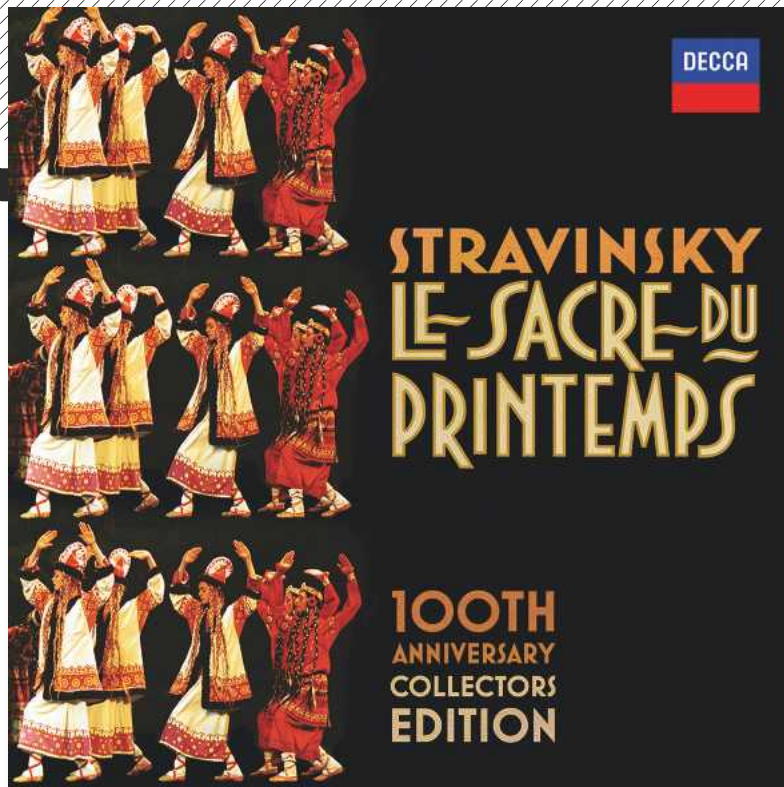
4832562] is a demonstration-quality example of how the work's intrinsic violence and primitivism can be enhanced and not compromised by exacting fidelity to the score and ultra-refined execution.

Of conductors from his generation, Sir Simon Rattle and Esa-Pekka Salonen have also produced indispensable Stravinsky collections of their own [see Essential Recordings, opposite], built from the ballets for Diaghilev and neoclassical masterpieces of his 'middle' period.

Fifty years after his death in Venice, however, why not use the anniversary to unlock the door to the often-overlooked room of his late music? The music of the 1960s, from his last ballet *Agon* to the *Requiem Canticles*, suffers like late Beethoven from an attitude of intimidated admiration. It's true

➔ This Decca Collectors Edition set [see Essential Recordings] comprises recordings of *Le Sacre* from the Decca, DG and Philips catalogues spanning from 1950 to 2010 – and includes the transcription for two pianos

➔ Stravinsky conducting in 1965, the year he agreed to have a documentary film made about himself for the CBS network



that the increasingly frail Stravinsky composed as if he had no time or energy to waste. But just as *The Rite Of Spring* grew from ancient chants and folk songs, *Pulcinella* from Pergolesi and *The Fairy's Kiss* from Tchaikovsky, he continued to make new suits from old cloth: Bach, Gesualdo and Renaissance dance.

PURE MUSIC

Stravinsky made new and abstruse 12-tone methods so much his own that it was as if he had invented them; and so he remained, as always, wholly and inimitably himself.

Listening now to *Canticum Sacrum*, *Threni* or *Abraham And Isaac*, one can still hear the composer of the *Symphony Of*

Psalms and *Apollo*. The five-minute 'Huxley' orchestral variations clear the palette like a 16-year-old Lagavulin: to be sipped and swirled without distraction. In the *Requiem Canticles*, all 'technique' seems to merge into a world of pure music and transcendent spiritual values.

Collectors on a budget should head to Naxos for the legacy of Robert Craft, Stravinsky's assistant in his later years, who produced performances of more flair and confidence without the composer breathing down his neck. The composer need not have worried that 'interpreters' would get in the way of his music; it continues to demonstrate an imperishable life force of its own. ☺

ESSENTIAL RECORDINGS

Columbia SO, etc/Igor Stravinsky

Sony 88875026162 (56 CDs)
The Alpha, but not the Omega: mono and stereo recordings including several subtly different second thoughts.

Le Sacre du printemps

Decca 4783729 (20 CDs)
Enthusiast magnet: the ballet that changed music for ever, in no fewer than 40 different recordings made over more than 60 years.

SWR SO/Michael Gielen

Hänssler SWR19023CD (six CDs)
An essential primer to late Stravinsky: *Agon*, *Threni*, the *Huxley Variations* and more, elucidated by a modern composer-conductor.

Philharmonia etc/Esa-Pekka Salonen

Sony 88985369592 (six CDs)
Thudding impact in *The Rite Of Spring*, *Oedipus rex* and *Symphony In Three Movements*; distilled clarity for the cool beauties of *Orpheus* and the *Cantata*.

CBSO, BPO etc/Simon Rattle

Warner Classics 2427542 (four CDs)
Maestro and musicians don't miss a trick in the Diaghilev ballets, jazz pieces and an immaculate *Symphonies Of Wind* from Berlin.

LSO/Sir Colin Davis

Philips 4647442 (download only)
Davis's *Orpheus* was my teenage Road to Damascus: it's still an ideal introduction.

Vinyl Release

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

Suede *The London Suede*

Steve Sutherland looks back to the '90s and a group heralded before they'd even released a record. Some thirty years on, their debut LP is reissued on 180g vinyl

It's April 1992 and Suede are the cover stars of the (now defunct) weekly music paper *Melody Maker* which is running a headline that heralds them as 'The Best New Band In Britain'. This is about to cause quite a hullabaloo, not only because most people have never heard of Suede but also because the band hasn't even released a record so far.

Nothing remotely similar has ever happened before and all the vested interest bods who run the BRITS and the major UK record companies are about to choke on their Kellogg's Frosties, and completely freak out at this utter *insurrection*.

Me? I'm on a crusade, baby. I've seen Suede playing three or four gigs around the watering holes of London and, as I told the *Independent* newspaper a few months later, 'When I first saw them, it was one of the few times I can honestly say I saw a band and was utterly convinced they

were brilliant. Often, you get a band with attitude, or a gimmick, or good songs, but seldom everything together'.

DON'T GIVE IN

Anyway, I'm talking to Brett – he's the slinky singer in the band. 'People say nothing can be said any more,' he states,

'and everything's been said. How defeatist is that? Just because people have been saying the same things for two thousand years doesn't rob them of their potency. You can't just give up on it.

'There's always emotion. Intensity's still there. I think

it's a real cop-out when bored people become musicians and then make an excuse for the fact that they're not saying anything. It's as if they feel that music should be saying something, realise that they're

"Life can be fascinating, extraordinary and absurd"

STEVE SUTHERLAND

Steve edited NME from 1992-2000, the Britpop years, launching NME.com and reviving the NME Awards. Previously he was Assistant Editor on *Melody Maker*. Among his many adventures he has been physically threatened by Axl Rose, hung out awhile with Jerry Garcia and had a drink or two with Keith Richards...



not, and then create an intellectual standpoint around it.'

'There's a choice', reckons towering bassist, Mat Osman. 'You can either say, "Well, the world around me is blank, so let it be blank" – which is what everyone seems to be doing, just giving in. Or you can take a gigantic leap of faith and say, "I believe life can be fascinating, extraordinary and absurd".'

'And, if you take that leap of faith and believe it, you can change your life. You shouldn't be scared to do it. Take the risk.'

BRITPOP'S HERE

'That's it', agrees porcelain-skinned, hawk-nosed Bernard Butler, then the most creative guitarist since Johnny Marr's heyday. 'Being in Suede is being alive in the most alive way possible.'

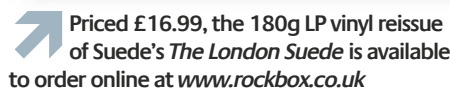
But, of course, what Suede were mostly really on about was sex. 'Well, we're addressing the real issues of sexuality', says Brett. 'At the moment, I feel as though we're this big striped beast, this lunging sexual animal. Live, the music is pounding, really intense and macabre in a way. The sexuality is quite dark. A lot of the situations in our songs are – officially – perverted situations, but it's not intended to be perverted or gimmicky. It's supposed to be very human, very real.'

A little later in the band's career, Brett will famously confess, 'I see myself as a bisexual man who's never had a homosexual experience'. 'The reason that our music is English, twisted and sexual,' adds Bernard, 'is because our lives are English, twisted and sexual.'

Ah yes, the Englishness. When their debut LP, *Suede* (or *The London Suede* as it's being called on this re-release, due to some legal issues in America) arrived in March 1993, it inadvertently and single-handedly kick-started that gloriously hectic burst of activity historians have labelled Britpop. At the time, this was seen as a

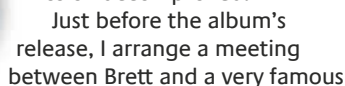


➔ Suede pictured in 2020, original LP release on Nude label (inset), and (opposite) Brett Anderson live on stage in the Netherlands in 2016 and (right) London 2011



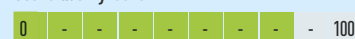
As for Glam: 'The '70s resonate with the '90s', says Bernard Butler. 'The '90s are really twisted and complicated, and '70s music sounds right because everyone kind of lost the track a bit back then and things got really odd. Lots of it went horribly wrong, but lots of it went horribly right at the same time.'

'When people criticise us, they often say, "Oh, the way you sound is very old-fashioned", but there's different ways of being inventive', says Brett. 'You don't necessarily have to be experimental in a weird kind of way. There's this cliché which you hear and read all these bands using – y'know: "We just make music for ourselves and, if anyone else likes it, it's a bonus". That's the



When Brett slips outside, the gent in question turns to me and says: 'Of all the tapes you've ever sent me, this is the only one that I knew instantly was great'. The dapper gent is David Bowie. 📧

Sound Quality: 80%





The Doors *The Soft Parade*

In 1969 the band were riding on the success of a hit single and would play a concert at Madison Square Garden, but the year also saw the singer's arrest, cancelled shows and *The Soft Parade*, one of the group's most adventurous yet most critically divisive albums

Words: **Mike Barnes**



Like many groups that enjoyed a high profile at the end of the '60s, The Doors felt the need to progress. But in which direction? Their self-titled debut album released in January 1967 had peaked at No 2 in the *Billboard* charts and the single, 'Light My Fire', had reached No 1. They undoubtedly had something of the night about them, but their gothic darkness was tempered by vocalist Jim Morrison's teen appeal and a certain cheesiness – a bass guitarist who had played uncredited studio sessions with the group once told this writer that in his estimation they sounded like 'A cocktail bar jazz band on Quaaludes'.

Strange Days, released later that year, saw an expansion in their sonic palette – inspired in part by The Beatles' *Sgt Pepper's* [see p24] – but while the album reached No 3 in the US it was outlasted in the charts by their debut. The long shadow cast by that album also hung over the group's third album, 1968's *Waiting For The Sun*, which was their first to reach No 1. It also yielded a No 1 hit single, 'Hello, I Love You', yet wasn't considered as strong a set.

SLEAZY DOES IT

A number of creative currents fed into the group. Guitarist Robby Krieger was versed in blues and rock 'n' roll, had studied flamenco and like keyboard player Ray Manzarek, had played jazz – as had drummer John Densmore, who was also interested in Indian music.

Morrison had met Manzarek while they were students at the UCLA School of Theatre, Film and Television in Los Angeles. He had read Rimbaud, Kerouac, William Blake and Nietzsche and was the main creative force behind 'Celebration Of The Lizard' an amalgam of music and poetry that The Doors played live, and had intended to fill one side of *Waiting For The Sun* until it was rejected for being uncommercial by the producer Paul A Rothchild.

Morrison was also a habitué of strip joints and this mix of highbrow aesthetics

Side 1 of the original US release on the Elektra label

The Doors (l-r): Krieger, Manzarek, Densmore and Morrison

In 1967 with Morrison, also a UCLA film school graduate, holding a cine camera

The painting on the inner gatefold showing Morrison and Manzarek

Handbill for a concert in 1969 in San Francisco

The singer in 1968 on The Smothers Brothers show in the US



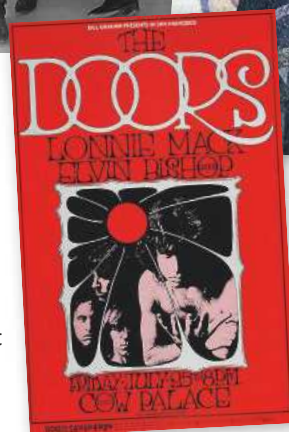
and late-night sleaze was reflected in the group's music.

'Touch Me', which was recorded in late 1968, was released as a single and with its ornate arrangement of horns and strings, and a solo by jazz saxophonist Curtis Amy, sounded unlike anything they had released before. It reached No 3 in the US.

Morrison's vocals had also acquired a new warmth and depth. Looking back in 2010 Ray Manzarek said 'He was no longer a blues singer. He'd added Frank Sinatra crooning to his voice'.

But the singer was now feeling both disillusioned and depressed, and his heavy consumption of alcohol, which had always made his behaviour nothing if not erratic, was becoming more of a problem. At one point he had even considered leaving The Doors, but was persuaded to stay.

A recording session at Sunset Sound studios in February 1969 yielded



"He'd added Frank Sinatra crooning to his voice"



an hour-long semi-improvised piece, 'Rock Is Dead'. Although never intended for public consumption, it caught Morrison working through his feelings on being a rock star. In what is, ironically, a strong performance he sings, 'Rock 'n' roll is dead/Let's do something else instead/We had a real good time, but it's gotta end'.

ENERGY LOST

Interviewed by Jerry Hopkins of *Rolling Stone* magazine in July '69, the month *The Soft Parade* was released, Morrison revealed that he had written a screenplay with poet and playwright Michael McClure for a movie called *Saint Nicholas*. He said

of rock music, 'The energy is gone. There is no longer a belief'.

With Morrison somewhat disengaged, Krieger contributed four songs to *The Soft Parade* to Morrison's four, with one co-written. Krieger has good memories of their working relationship and found





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Initial 20% deposit of £1,998, then
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Combining beautiful design and a gorgeous fast-responding Dual Scale Watt meter, the 300wpc McIntosh MC830 mono power amplifier delivers breathtaking performance from even the most demanding loudspeakers.



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*0% Finance examples above are subject to status & conditions

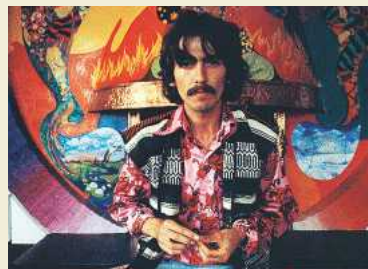
VINYL ICONS

PRODUCTION NOTES

The track 'Easy Ride' was recorded in March 1968 at TTG studios during sessions for *Waiting For The Sun*. The remaining eight songs were put down between late July 1968 and May '69 at Elektra Studios B, Los Angeles, although nothing recorded after mid-January 1969 was used on the album. The sessions were engineered by Bruce Botnick and produced by Paul A Rothchild. Robby Krieger recalled that the band were still not particularly studio savvy at the time and the exacting Rothchild would insist on multiple takes.

He also noted that the producer was, 'a very strong personality and real smart, which Jim [Morrison] looked up to'. Rothchild and Morrison worked together structuring the title track, finding suitable verses from Morrison's notebook that would fit particular sections of the song.

But the singer could be difficult and disruptive, and was bored by the lengthy mixing sessions. 'I think he was trying to show the band that they weren't sh*t without him', Rothchild told *BAM* in 1981. 'He tested people's limits to see where their level of infuriation was.'



Ray Manzarek enjoyed recording in the all-wood rooms at Elektra and playing the 'great funky organ' and was delighted when George Harrison dropped in to say hello. Drummer John Densmore also liked the drum sound, though he found the producer's perfectionism rather taxing. He had to 'tap on each drum and I'd have to do it for a f*ckin' hour'. He also recalls muffling his snare drum by taping his wallet to the edge of the batter head.

Manzarek said that 'Rothchild and Botnick were two alchemists with sound'. But added that, 'I wouldn't allow anything to get out of the recording studio without my approval. If I didn't think it was right it didn't go onto a record'.



Morrison open and not 'ego-bound'. Morrison added the *a cappella* introduction about Otis Redding to Krieger's 'Runnin' Blue' with its curious juxtaposition of soulful rock verses and bluegrass choruses.

Another of Robby Krieger's compositions, 'Touch Me' was originally titled 'Hit Me' – as you might say when playing poker or blackjack – but Morrison insisted on changing the line and title as he was worried that a fan might take this invitation too literally.

HELLFIRE PREACHER

One of the highlights of *The Soft Parade* is Morrison's 'Shaman's Blues', which refers to his interest in the cultural role of the shaman – and the fact that he had also been described by some as the rock equivalent. But the lyrics dug beneath that image to reveal both doubt and insecurity. And although he sings the line 'the whole world's a saviour', he clearly finds that sentiment difficult to believe.

The inclusion of horns and strings on some songs had been suggested by Rothchild and rather reluctantly accepted by some of the band. But whereas the ornate figures written by string arranger Paul Harris might have been intended to give the set a similar feel to *Forever Changes* by Elektra labelmates Love, at times they swamp the songs, obscuring The Doors' instrumental interplay.

Krieger was ambivalent, but once the group agreed to pursue this tack he got on with working with Harris and is particularly pleased with the orchestration on the track 'Wishful Sinful'. He said, 'I would give him ideas for a horn line here and there and hope for the best'.



But Manzarek was particularly enthusiastic about expanding the instrumental scope of the band. He said in 2010: 'We had made three albums with the same formation, and at some point or another you want to do an album with expanded sound. So you want to have some horns and strings. My God – just everybody was doing it. And we were gonna do it too'.

The keyboard player described the nine-minute title track as 'a suite of tunes', and the enigmatic musical collage begins with Morrison addressing the listener like a hellfire preacher warning against 'petitioning the Lord with song'.

MIAMI EXPOSURE

The Doors had played the prestigious Madison Square Garden in January 1969 augmented by horns and strings. Manzarek reckoned that, 'It didn't work for a lot of the critics and teenagers. [They said] "We want to see 'Light My Fire'. The sexy lead singer"'. But a full summer tour to promote *The Soft Parade* ended up being

↖ The group pose on the steps leading up to the San Francisco Botanical Gardens in 1967

↖ The singer is caught on camera while on stage at the Hollywood Bowl in 1968

↖ George Harrison pictured in 1966. He attended *The Soft Parade* sessions in November 1968

↓ A promo shot of the group issued by Elektra in 1967



'It was one of rock's most notorious incidents'

Hot Stuff.



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Alternate Format Discography



➔ The band in 1968 in a shot to promote *Waiting For The Sun*

cancelled due to the fall-out of one of rock's most notorious incidents, a Doors concert at the Dinner Key Auditorium, Miami, that March.

Morrison was increasingly intent on provoking the crowd. He was fuelled by the confrontational ideas expressed by the French writer Antonin Artaud in his concept of the 'Theatre Of Cruelty', which had been compounded when he went to see The Living Theater, an avant-garde troupe who broke down taboos in performance and addressed the audience directly, at UCLA.

INDECENT PROPOSAL

Morrison's inebriated performance was pitched somewhere between a shamanic ritual and a drunk shouting at traffic. He berated the audience with, 'How long are you gonna let them push you around? You're all a bunch of slaves!'. A fight broke out and the promoter tried to stop the show, then Morrison exposed himself on stage. He was later arrested and charged with drunkenness, open profanity, lewd and lascivious behaviour, and indecent exposure.

The musical diversions of *The Soft Parade* were a one-off rather than a signpost to a new direction. And while the album received a lukewarm reception in the press it reached No 6 in the *Billboard* charts. In 1970, Morrison spoke of the Miami incident as if it had been part of a conscious strategy to rid himself of the mantle of rock star.

If so it was unsuccessful as he clearly still had work to do. The Doors went on to produce the multifaceted but harder rocking (and more warmly received) albums *Morrison Hotel* in 1970 and *LA Woman* in 1971, the year of the singer's untimely death. ☹



ORIGINAL LP

The Soft Parade was released in July 1969. The US LP came out on Elektra with a surreal colour painting of the group members on the inner gatefold, an inner sleeve with portraits of The Doors on one side and lyrics on the other, and gold record labels [EKS 75005]. The UK version had the same catalogue number but red labels.

The 1969 Japanese LP – which now commands high prices – had a front cover that featured a small circular photo of the group cropped from the standard cover set on a white background and surrounded by a flamboyant font spelling out 'World New Rock Series No 8' [see below]. These LPs were releases licensed from US and UK labels and included albums by Pentangle, Jethro Tull and MC5. It was issued in a gatefold cover with an insert in Japanese text and appeared on the blue and white 'Guitar player' label [SJET-8161].

Another rare oddity is the Netherlands club edition that came out on German SR International via Dutch label ECI. The front cover features multiple images of a Victorian-style illustration of a child playing drums with a moody black and white group shot on the back [20 101].

There were just two mono versions of *The Soft Parade*, both



on CBS and released in single sleeves in Uruguay [10.006] and Chile [111.076] in 1970.

TAPE VERSIONS

An 8-track cartridge was released on Elektra in 1969 in a cream

plastic shell [M 85005] and on a 4-track cartridge in a smoke grey translucent shell. This format used two programmes as opposed to the 8-track format's four [Elektra EKT-A-75005]. A 3¾ips, 4-track stereo open-reel tape was also released on Elektra [X 5005].

The original US cassette came in a clamshell case [Elektra X55005] while the version for the UK market was manufactured by Polydor Records [948 015; ZCK4 42079]. The album was also released on cassette in 1989 [E4-75005] as a 'Club Edition' licensed to Columbia House [pictured below].



FIRST CD RELEASE

The first CD of *The Soft Parade* to appear in Europe hit the shelves in 1989 [Elektra, 975 005-2]. Mastering took place at Digital Magnetics in Hollywood by both Bruce Botnick and Paul A Rothchild.

The artwork was based on the original LP cover but carried added information about digital remastering and instructions on CD care on the back of the jewel case. The US version was manufactured by WEA and released the following year [Elektra 75005-2].

The CD was remastered in 1999 at Bernie Grundman Mastering in Hollywood for US markets, this time with composition and recording credits on the back cover [Elektra 75005-2, 62434-2D]. This version was then released in Europe the following year [7559-75005-2].

A limited edition HDCD appeared on Audio Fidelity in the US in 2009 [AFZ 038]. It claimed that 'The original dynamic range of this recording was not limited or compressed in any way during [Steve Hoffman's] remastering'.

SPECIAL EDITIONS AND BOX SETS

The first CD with bonus tracks was released in an early 40th anniversary edition in 2007 – a joint release by Elektra, Warner Bros, Rhino and Doors Music Company [Europe 8122-79998-1]. It was remastered at Uniteye in California by Botnick. The additional tracks are 'Who Scared You', 'Push Push', 'Whisky, Mystics And Men' (two takes) and another take of 'Touch Me'. The US version came out via Elektra/Rhino/Doors [R2 101187] with liner notes by Botnick and *Rolling Stone* journalist David Fricke.

The major reissue project came in 2019 with the numbered, limited edition 50th anniversary All Media Deluxe Edition [pictured below], remastered that year by Botnick and Bernie Grundman.

CD1 contains the original stereo mixes while CD2 comprises bonus 'Doors only' versions minus the contentious brass and strings overdubs, with new mixes by Botnick and some new guitar overdubs by Krieger. There are also a number of studio run-throughs, some with Ray Manzarek on vocals.

CD3 consists of more bonus tracks centred on the unexpurgated 64m version of 'Rock Is Dead' and the set is completed by an LP of the original stereo mix. It was released on Rhino/Elektra with a US catalogue number R2 596001 and in Europe R2 596001, 603497851324.

AUDIOPHILE VINYL

In 2009 a 180g vinyl LP was cut at Bernie Grundman Mastering under the supervision of Botnick and Elektra founder Jac Holzman. This was issued on Elektra/Rhino [US EKS-75005, RHI-74881-4; Europe 8122-79864-9]. In 2020 a 180g remastered LP was released in Europe [Elektra, R1 75005].



Inside the Studio

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW



YORK TILLER

Real World Studios

Talk about a room with a view... This radical recording studio is unusual with its control and live areas occupying the same space. **Steve Sutherland** tells the story of its genesis

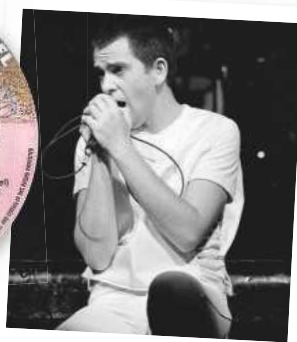
What's the worst album ever made by a great band? I used to think it was *Thank You*, the cover versions LP released in 1995 by Duran Duran which, somewhat hilariously, found them stumbling through cack-handed versions of Melle Mel's 'White Lines (Don't Do It)' and Public Enemy's '911 Is A Joke' among its many abominations.

But two years later, it was knocked from its perch by Black Grape – the band Shaun Ryder fronted once Happy Mondays had fizzled out the first time round – who released their appropriately titled second LP, *Stupid Stupid Stupid*. It lacked any energy or ambition, and boasted – if that's the right word – a dreadful version of Frederick Knight's sublime 1972 Stax classic 'I've Been Lonely For So Long'.



➔ Peter Gabriel's self-titled debut LP from 1982, and on stage in 1978

➔ Gabriel (far right) with Genesis in the early 1970s



I mention this because producer and sometime band member Danny Saber put the finishing touches to this atrocity at Real World Studios in the quiet rural village of Box in Wiltshire and when the studio's owner was asked who'd made the most mess when recording there, he nominated the Grape.

FOX ON THE RUN

'They had a lot of parties', he said later, 'and a lot of Manchester would come down... Then, mysteriously, half the cars in the village would end up back in Manchester.'

The owner, by the way, has a bit of a chaotic track record himself. The first time I came across him, he was wearing a crimson dress and a fox's head, fronting a band that, a few years later, would reach the cusp of superstardom only for the chap in question to abruptly quit to

KEY RECORDING TIMELINE



1989

New Order finish work recording *Technique* at Real World Studios, giving them their first No 1 album



1990

Van Morrison hires the Wood Room to record his 12th studio album *Enlightenment*, which peaks at No 5



2003

Tracks made at Real World appear on *Sixty Six To Timbuktu*, which covers the recording career of Robert Plant

tend to his vegetable patch. Not long after, he shaves his head in sympathy with his wife who's shaved her head in penance for an affair she's just had... Not your run-of-the-mill geezer, then.

Anyway in 1987 Peter Gabriel – for it is he – late of the band Genesis – for it was they – was looking for an appropriate site to establish a permanent studio. He'd been working out of a converted barn on the property of an old hunting lodge called Ashcombe House at Swainswick in Somerset, which he'd been renting as his family home for the past nine years. Here he'd recorded three albums – *Peter Gabriel* (1982), the soundtrack to the Alan Parker film *Birdy* (1984) and *So* (1985) – the latter of which was successful enough to fund a move.

THINKING BIG

Happy in the area and wishing to set up near water, Gabriel checked out a number of local mills and eventually settled on the 200-year-old Box Mill (also known as Pinchin's Mill), a site on the By Brook previously owned way back in the mid 1800s by a brewery and which, during its chequered history, had at one time served as a girls' school.

Designed wholly to Gabriel's specifications – hi-tech, handmade – to ensure the studio benefited from life-giving elements of light, air and water, the space that put Real World on the map was the Big Room, which, from the outside, resembles nothing so much as a spaceship.

Its large window overlooks a pond that was dug out as an extension of the millstream during construction, providing a scenic, tranquil view. Constant fresh air is provided by way of air-conditioning ducts made of natural materials – no metal pipes, all clay – that add to the organic feel of the space.

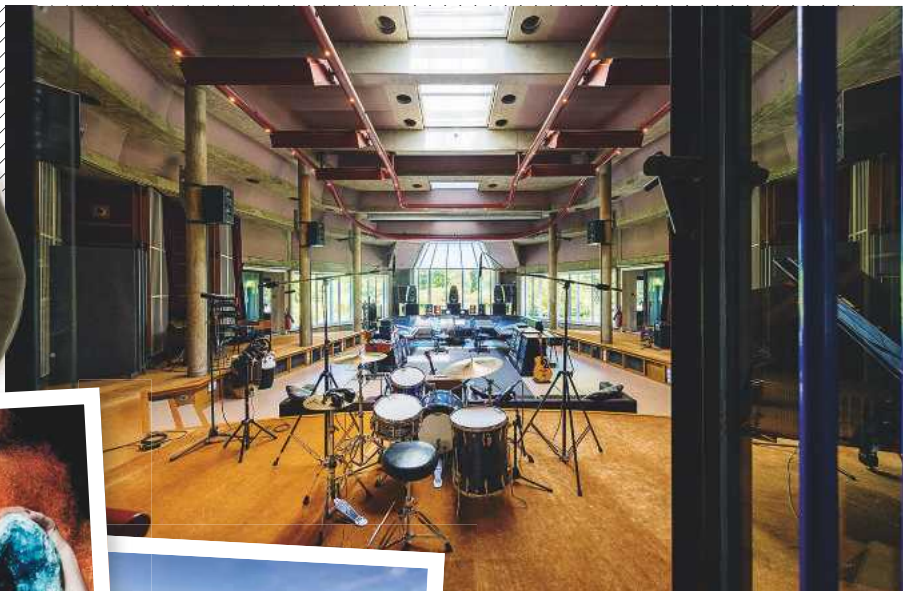


Shaun Ryder of Black Grape (centre) pictured in 2009

Björk, who recorded her 2004 album *Medulla* at Real World Studios

Inside the Big Room, looking towards the console and front window from the live area and (inset) view of the exterior of the studio

Made live at the studio in 2004, The Incredible String Band's *Nebulous Nearnesses* album and (far right) the group in 1970



The 185m² Big Room was deliberately designed to be one large collaborative recording space, without dividing walls and, although there's a separate machine room and two isolation booths, there's no separation between the live and control areas, and no physical barriers between performing musicians and the recording staff.

In other words, it's the exact antithesis of most recording studios, a fact emphasised by the custom wrap-around Solid State Logic 9000K console with its 72 inputs facing towards the front window, rather than the stage-like platform at the rear of the room where most ensembles would set up their kit.

Additional equipment in the Big Room includes a 'Pro Tools | Ultimate HDX-2' digital audio workstation, custom Exigy monitoring and a 24-channel digital foldback system, as well as a Yamaha C3 grand piano and Hammond C3 organ.

The Big Room can be easily converted into a Dolby-certified film-mixing stage, where projects including *Quantum Of Solace*, *Brideshead Revisited* and *The No 1 Ladies' Detective Agency* have been

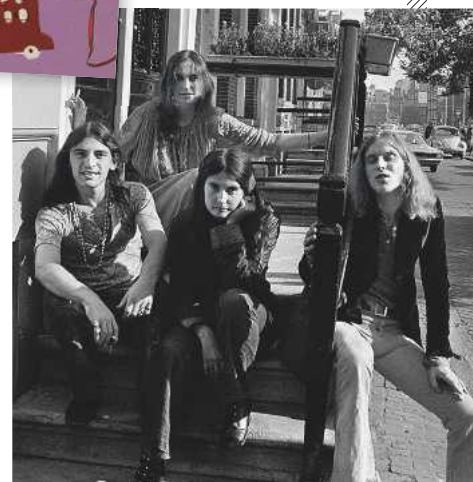
worked on, and it can also be used to stage events such as The Incredible String Band's *Nebulous Nearnesses*, an album that was recorded live over two days before an invited audience in 2003.

When Gabriel first envisioned Real World, his plan was that the complex could be used as an organic whole on a project-by-project basis. Hence the Big Room is connected to the Wood Room which is often used in conjunction with it.

GLASS FLOOR

This is a more conventional live area, with a floor space measuring 110m² renowned for its warm, rich acoustic vibe, and certainly big enough to hold a large ensemble. The set-up

here includes a mobile recording rig based on a 24-channel Solid State Logic AWS 924 console with a further 16 channels of Neve 33114 preamplifiers, a Bösendorfer 170CS grand piano, a 32in



2011

Another compilation, as tracks from Real World sessions appear on the Amy Winehouse album *Lioness...*



2015

It's a Top 20 hit for Tom Jones with *Long Lost Suitcase*, recorded at the studios with producer Ethan Johns



2019

Roger Waters part-mixes *US + Them* in The Big Room over several weeks during February and March 2019

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Pro Tools | Ultimate HDX rig, and a 24-channel digital holdback system.

The complex also houses The Rehearsal Room, a 15x5m soundproof and acoustically dry space, often used for band rehearsals and tour pre-production. This holds a large Turbosound PA with Yamaha amps, a Mackie 32-8 mixing console, four floor wedges and a selection of microphones.

There's the Stone Room too, where you can see the river run under your feet through a glass floor while you're recording.

Meanwhile, Gabriel maintains his own private writing room in a wooden structure on the opposite side of the pond, a space primarily conceived as a yoga retreat, along with post-production and Foley facilities, a rehearsal studio, and numerous smaller studio spaces rented out to external producers.

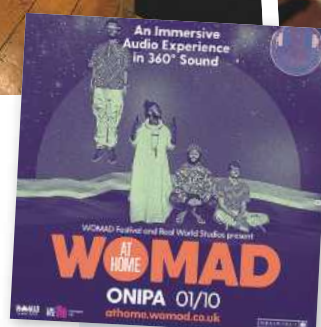
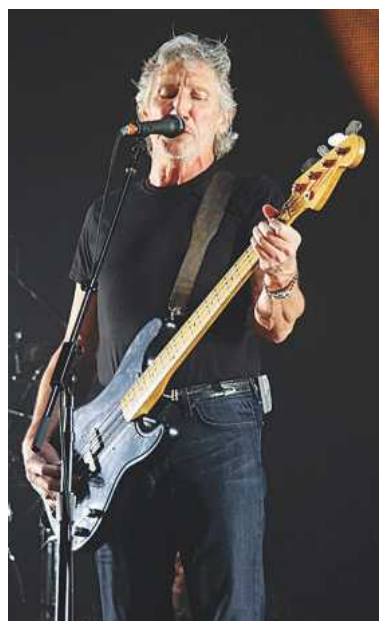
ARTISTS IN RESIDENCE

Seeing as the complex is located about a two-hour drive from London, Real World is a residential studio, and offers six double bedrooms and a detached cottage for more privacy. The site also includes the offices of Gabriel's Real World Records label and WOMAD (World Of Music Arts And Dance), the festival he launched back in 1980 to celebrate talents from all over the globe.

It should be obvious by now that there's a collaborative philosophy at work here behind the natural imperative to turn a profit. So, while the studio's reputation is established on the roster of famous names who have worked here – the likes of Alicia Keys, Arctic Monkeys,

Beyoncé, Björk, Crowded House, Deep Purple, Elbow, Ginger Baker, Goldfrapp, Harry Styles, Hot Chip, Jay-Z, Kaiser Chiefs, Kanye West, Kasabian, Kylie Minogue, Laura Marling, The Manic Street Preachers, Massive Attack, Mumford And Sons, Muse, New Order, Paul Simon, The Pixies, Robert Plant, Roger Waters, Sam Smith, Stereophonics, Take That, Tears For Fears, The Courteeners, The Pretenders, Tom Jones, Vampire Weekend and Van Morrison to name but a few – there are other commercial opportunities on offer that are very dear to Gabriel's heart.

One such enterprise is Beatcamp which pre- (and presumably post) Covid lockdown invited individuals



↑ In late 2020, Real World Studios streamed WOMAD concerts in 'immersive 360° sound' due to the Covid pandemic

↖ The Wood Room with its Solid State Logic console and Bösendorfer grand piano

↗ Real World Studios was where Kylie Minogue's hit single 'Spinning Around' was mixed

↖ Roger Waters used the studio for his 2019 movie *Us + Them*



seeking a musical career to sign up, at roughly two grand a pop, for the opportunity to collaborate and record with each other using the studio's equipment, session musicians and staff expertise.

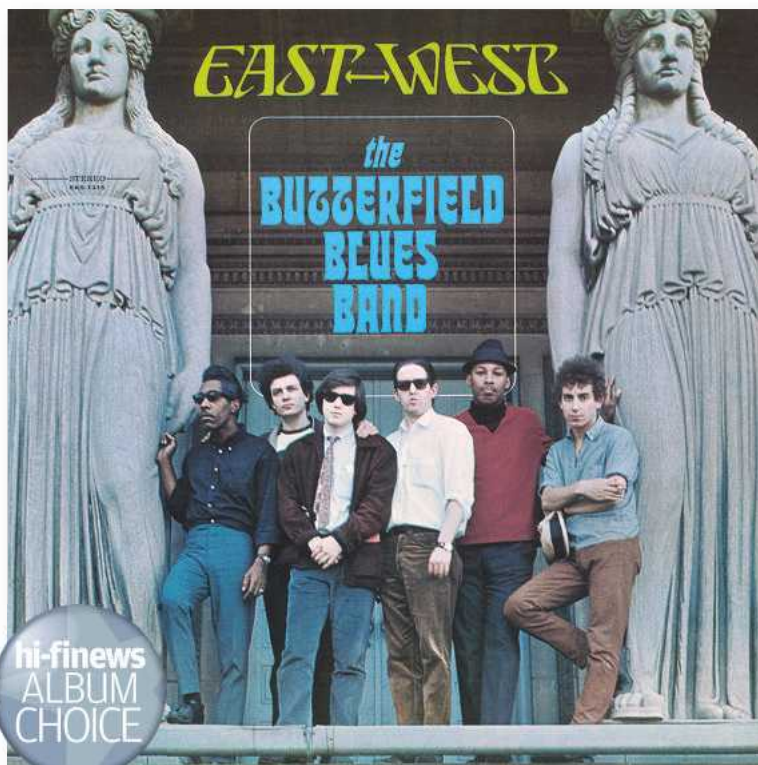
Real World also maintains a relationship with various universities and colleges so that students can use the facilities for studio training, plus there's an eMixing programme where you can send your track to Real World to have it mixed professionally, and UnReal World, a 'virtual studio' in development where a producer with the seed of an idea, a style brief and a playlist of references invites musicians to contribute.

BINAURAL BEATS

Real World is also branching out into immersive concerts as one of the rare benefits of the Covid outbreak has been the proliferation of live streams. The performances are planned to be pre-recorded and then mixed binaurally.

'They will be immersive mixes, making the experience as close as possible to being in the live room', claims a studio spokesperson. 'The idea is that you spend your whole day on Zoom or staring at email and then this is, "just put some headphones on, close your eyes and listen as if you were there".

'The one thing we have discovered during the lockdown, though, is that no matter how great the technology gets to allow collaboration online, it's ultimately a million miles away from the real thing. People are desperate to come into a studio together again – there really is no substitute for musicians working in the same space.' 🎧



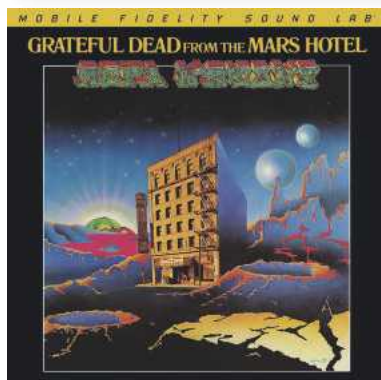
THE BUTTERFIELD BLUES BAND

East-West

Speakers Corner/Elektra EKS-7315 (180g vinyl)

Reissued many times, this earned the Speakers Corner treatment not for sonic worth but musical merit. Regarded as Butterfield's best (though some prefer the more purist, raucous debut), there is no doubt it marked a transition in typical blues band repertoire, as exemplified by the title track: a 13m jazz/raga. The band's second album, from 1966, it freed practitioners of the genre, especially young white blues players, from the constraints of the 12-bar format, but this contains enough straight blues not to alienate hard-core fans. The cover of 'Get Out of My Life Woman' is my fave, but it's all exceptional – especially Butterfield's harp virtuosity and Mike Bloomfield's guitar skills. **KK**

Sound Quality: 90%



GRATEFUL DEAD

From The Mars Hotel

Mobile Fidelity MFSL2-482 (two 45rpm LPs)

Despite my Yankee Baby Boomer status, I have yet to become an admirer of the Dead – they're not even in my top 500 – but I will acknowledge that the further they grew away from the psychedelic excess of the late '60s, the more listenable they became to non-druggies. While hardly approaching their masterpieces – *American Beauty* and *Workingman's Dead* – this studio effort from 1974 at least contains songs rather than side-filling, self-indulgent sonic nightmares. Highlights include such fan favourites as 'U.S. Blues', 'Scarlet Begonias' and 'Ship Of Fools'. The guitar work is superlative and the sound is sublime. Jerry Garcia devotees will not be disappointed. **KK**

Sound Quality: 90%



THE ROLLING STONES

Goat's Head Soup

Polydor 02508 93981 (four discs)

How odd: with its cloth-covered box and loads of extras, the best Stones anniversary package so far goes to one of the less-deserving titles – *Beggars Banquet* and *Sticky Fingers* slaughter this album. Included are a new stereo mix of the LP that gave us 'Angie' and 'Silver Train', three bonus LPs deliver rarities, alternate mixes and a 1973 live set filling two of them. This box, however, repeats a mean practice shared with the Lennon set, opposite: the vinyl box lacks the 124pp hardback book in the 3CD + Blu-ray alternative [02508 85032]. Why are they targeting vinyl buyers? Anyway, it's a real feast for the Stones fanatics. **KK**

Sound Quality: 85%



ELLIOTT SMITH

Elliott Smith

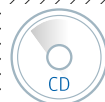
Kill Rock Stars KRS656 (two discs)

One of the more tragic cases in rock history, Smith was found stabbed in 2003, with no coroner's decision made of suicide or murder. He was a sensitive soul likened to Nick Drake, his delicate music infused with British Invasion pop/rock sensibility, and the result was an introspective singer-songwriter with indie credibility. The exquisite, clothbound 25th anniversary reissue of his self-named second album, its original artwork redone in two types of black, sounds simply superb – notably his acoustic guitar playing – further reminding us of what we've lost. The bonus LP contains an unreleased, earliest-known live recording of Smith performing solo. **KK**

Sound Quality: 90%



AUDIOPHILE: DIGITAL



COMPACT DISC



SUPRAUDIO



DVD



BLU-RAY



VINYL



DOWNLOAD



DONALD BYRD

Street Lady

Vocalion CDSML8576

Another pleasant surprise in its original quad mix, this gem from 1974 probably didn't do much for jazz purists, but it stands up as a fine example of the African-American mainstream of the era. Wittily described by AllMusic's Stephen Thomas Erlewine as 'like the soundtrack to a forgotten blaxploitation film', the playing is uniformly excellent – it owes a lot to the sounds both Stax and Miles were achieving, and you can't help but smile at the political incorrectness of a concept album about a hooker with a heart of gold. OK, so it's one long cliché, but it's certainly a fantastic mood setter if you fantasise about living in the world of *Superfly* or *Shaft*. **KK**

Sound Quality: 85%



JOHN LENNON

Gimme Some Truth

Universal 02435 00208 (2CDs, high-res + 5.1 Blu-ray)

Pedants posit that music remixed after a performer has died is music not endorsed by that artist – applicable to many of this month's titles. This 36-track set is Yoko's newest milking of her late husband's solo work: it sounds fresh and punchy, but it ain't what Lennon signed off, *eg*, the Blu-ray's 5.1 and high-res versions. Judged without purism or sentiment, one can't fault the track selection, with all the faves – 'Woman', 'Imagine', 'Isolation', *etc* – present. The new mixes offer clarity, bass kick and more prominent vocals, but only you can decide if one should leave well enough alone. Sadly, the 4LP set [02435 00198] lacks the 124pp hardback book. **KK**

Sound Quality: 85%



FRANK SINATRA

Sing And Dance With Frank Sinatra

Impex IMP8319 (mono)

This material has been repackaged more times than one can count because of its importance: Ol' Blue Eyes' 10in record from 1950 is a milestone in his career. It was his first for the LP format, it showed a new maturity, and it still sounds wonderful. The original eight tracks included a fabulous run of standards such as 'It's Only A Paper Moon', 'You Do Something To Me' and 'My Blue Heaven', while the bonuses feature alternate takes and unreleased recordings. As this SACD has a completely different set of extra tracks from the 1990s Columbia CD's selection, even if you have that, this is a worthy purchase. More to the point, it's even better-sounding. **KK**

Sound Quality: 90%



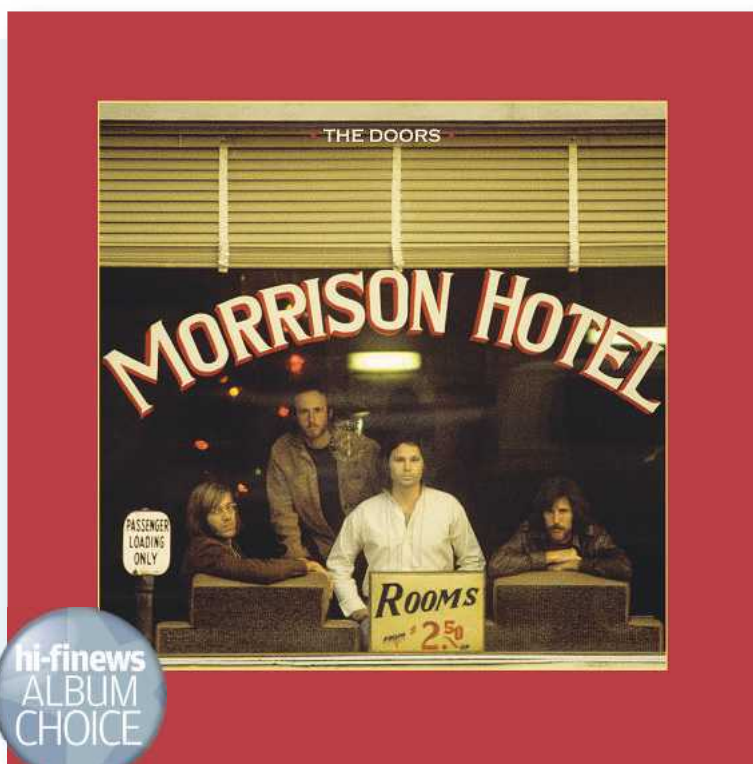
THE DOORS

Morrison Hotel

Rhino R2 627602 (2CDs + LP)

An album which continually surprises me, The Doors' fifth studio effort just grows better with age. Here for the 50th anniversary is a remastering of the original 1970 stereo mix, included on both CD1 and vinyl, while CD2 provides a generous 70 minutes' worth of previously unreleased material. The legendary Bruce Botnick did the remastering – he was The Doors' original engineer and mixer – so veracity is maintained. As for the unreleased material, this is incredible stuff targeted at the devotee because it consists of multiple takes and false starts that show how the band worked in the studio. While CD2 might provide just one listening, the main album is a killer, especially the opener, 'Roadhouse Blues'. **KK**

Sound Quality: 90%





VPO/RICCARDO MUTI

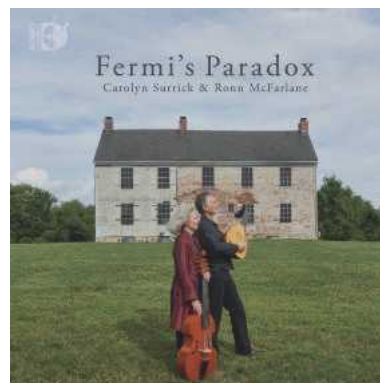
2021 New Year's Concert (96kHz/24-bit, FLAC)

www.hi-resaudio.com; Sony Classical 19439840162

Muti's sixth New Year's Day concert with the Vienna Philharmonic, but one with a difference – the Musikverein was empty, albeit populated by the spirits of Brahms, Bruckner and Mahler, as Muti said in his address [trk17]. So, the closing *Radetzky March* bereft of audience clapping! Six pieces new to the orchestra are mixed in with old favourites: with its 'cuckoo' calls, *In Krapf's Woods* is worth the price of this set alone! And the two long favourites, *The Emperor* and *Blue Danube* never outstay their

welcome for one second, but seem to have an especially haunting magic this year – *Voices of Spring* too. And Karl Komzák's beguiling *Baden Girls*, with its perky intro, sounding as if from a distant past. The detail and rhythmic power at the end of *Poet and Peasant* typifies the potency of the VPO/Muti combination – even if, via the Eurovision transmission, at times he appeared to be doing very little! **CB**

Sound Quality: 95%



CAROLYN ANDERSON SURRICK & RONN MCFARLANE

Fermi's Paradox (DSD64/128/256/512; DXD)

www.nativesd.com; Sono Luminus DSL-92244

To paraphrase the inspiration behind this album, given that it's mathematically impossible there isn't intelligent life elsewhere in the universe, then where is it? That thought forms the basis of the title track here, which sets the gentle tone for the whole set, bringing together lutist McFarlane and viola da gamba player Surrick, occasionally joined by Jackie Moran on bodhran. A lockdown project, developed over several months, it combines original tunes with arrangements as diverse as Dowland and traditional Irish. Recorded straight to DXD in Boyce, Virginia, it's not going to set your system alight with its easygoing mood, but still sounds rather gorgeous, with both the main instruments captured persuasively, and no shortage of love and artistry in the playing. If you need a chill-out, then search no further. **AE**

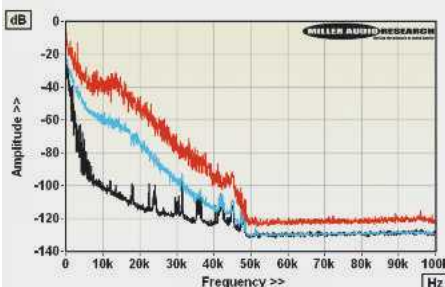
Sound Quality: 85%



OUR PROMISE

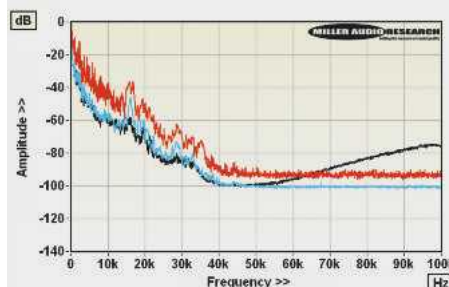
Following our Investigation feature [HFN Jun '11] where we examined the claimed quality of 'high-res' downloads, *Hi-Fi News & Record Review* continues to measure the true sample rate and bit-depth of HD music downloads. The Graphs show peak [red] and RMS [blue] spectra. These unique reviews will be a regular source of information for those seeking new and remastered recordings offered at high sample rates and with the promise of delivering the very best sound quality. (Note: an asterisk in the heading denotes a technical reservation – see Lab text). **PM**

LAB REPORT



Aside from Muti's address, which is a 48kHz mix, this is a genuine 96kHz file with every Hz of its ~45kHz bandwidth successfully occupied by the Vienna Philharmonic. Note some unfortunate spurious from 18-48kHz [black trace]. **PM**

LAB REPORT



Recorded and mastered using a mix of Merging Technologies Horus and Hapi hardware in 352.8kHz/24-bit, the DXD file is 'native' while the DSD files [black] are conversions. The DSD128 tracks peak some 5-6dB below the DXD tracks. **PM**



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RPO/OWAIN ARWEL HUGHES

Sibelius: Symphonies 1 and 3 (96kHz/24-bit, FLAC)

www.hifiresaudio.com; Rubicon RCD1055

The start of a new Sibelius cycle (a first for the Royal Philharmonic) these recordings were produced by Andrew Keener, with engineer Phil Rowlands, at St John's Smith Square in Aug '19. The two performances are marked by clarity and minute textual detail – even if Hughes doesn't give us the most exciting *Scherzo* on records in No 1. And there's something I found faintly 'Brucknerian' about them. Thus the finale of No 3, where the exhilarating rhythmic pattern doesn't begin until after the half-way mark, is just a little too sober – in contrast to the one at the Symphony's outset, immediately foot-tapping here. Still, Hughes unravels the tricky intro to (iii). Recorded by neither Karajan nor Ormandy (both keen Sibelians) No 3 saw Sibelius turning to a new 'classical' orchestration, but introducing that sense of a journey unfolding, with evident landscapes. **CB**

Sound Quality: 80%



SAFFRONKEIRA WITH PAOLO FRESU

In Origine: The Field Of Repentance (96kHz/24-bit, FLAC)*

www.denovali.com; Denovali DEN343

'High concept' is an understatement: this collaboration between Sardinian 'sound researcher' Eugenio Caria and compatriot jazz trumpeter Fresu takes as its starting point a quote from Nietzsche's *Also Sprach Zarathustra*, and is described as 'dealing with the origin of man and its impact on the cycle of creation and destruction which drives the evolution of the universe'. OK... Bubbling electronica is overlaid on synth beats, percussion and washes of sound, above which Fresu noodles inoffensively on tracks entitled 'Death And Civilisation' and 'Harmony In Chaos', etc. The trumpet sounds fine enough when it peeks out from the wash of sound, and there's some low end to get your speakers moving, but this is one of those albums you only realise is finished when the sound stops – it's not what you'd call desperately interesting. **AE**

Sound Quality: 80%



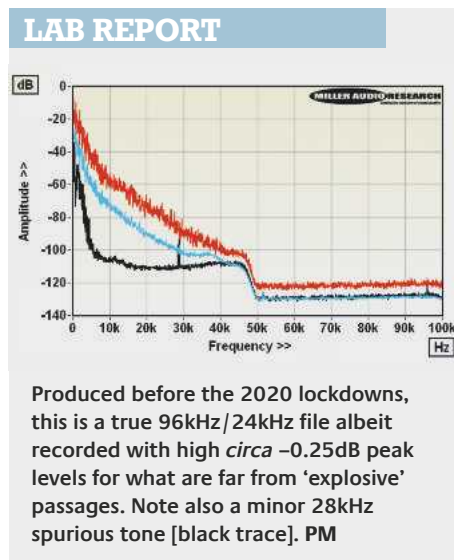
RUSH

Sector One (96kHz/24-bit, FLAC)

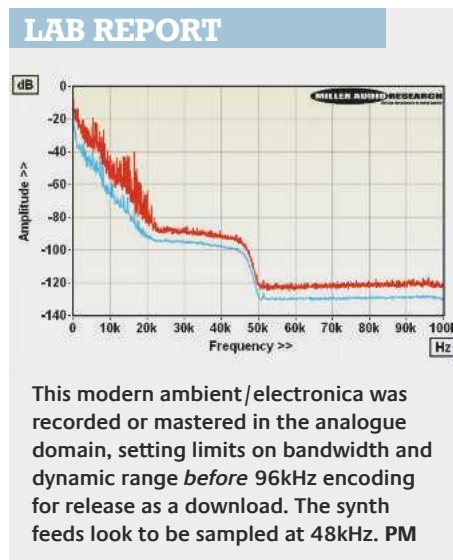
www.hifiresaudio.com; Anthem Records n/a cat no.

Sectors was originally released in 2011 as three six-disc box sets, each carrying five of Rush's 15 Mercury albums in chronological order, remastered at 96kHz/24-bit. *Sector One* and *Two* are available as downloads, the former including the eponymous *Rush*, *Fly By Night* (the first album with drummer Neil Peart who sadly passed away in 2020), *Caress Of Steel*, the genre-defining *2112* and the band's first live album *All The World's A Stage*. *Sector One* includes 11 Live takes, most possessing a little extra vibrancy than their studio counterparts – particularly the standout 'Working Man' (*Rush*), otherwise denied dynamic contrast. *Fly By Night*'s 'By-Tor And The Snow Dog', the first flowering of the band's progressive future, benefits from added bite and vocal clarity here but, said even as a lifelong fan, Rush's recorded sound has never matched the inventive complexity of their music. **PM**

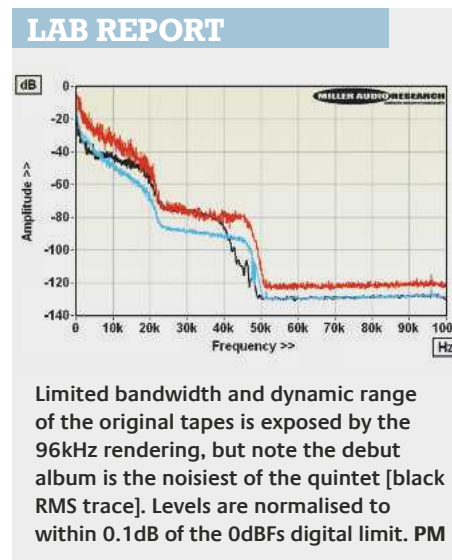
Sound Quality: 75%



Produced before the 2020 lockdowns, this is a true 96kHz/24kHz file albeit recorded with high *circa* -0.25dB peak levels for what are far from 'explosive' passages. Note also a minor 28kHz spurious tone [black trace]. **PM**



This modern ambient/electronica was recorded or mastered in the analogue domain, setting limits on bandwidth and dynamic range *before* 96kHz encoding for release as a download. The synth feeds look to be sampled at 48kHz. **PM**



Limited bandwidth and dynamic range of the original tapes is exposed by the 96kHz rendering, but note the debut album is the noisiest of the quintet [black RMS trace]. Levels are normalised to within 0.1dB of the 0dBfs digital limit. **PM**

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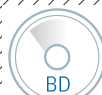
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JANE WEAVER

Flock

Fire FIRECD544; LP: FIRELP544

In the '90s Jane Weaver served in Britpop group Kill Laura, and her solo career has touched upon folk and Americana. But on her more recent releases she's fashioned a distinctive style from many disparate influences and clearly loves both the transcendental qualities of pop melody and of sonic texture and timbre. On *Flock* she's created a vividly produced 3D sound, which includes elements of primary coloured '80s funk and a strong electronic component, with 'Modern Reputation' a veritable feast of cosmic analogue synths. The glam stomp of 'Stages Of Phases' evokes Goldfrapp's 'Strict Machine' and dreamy flutes drift over hyperactive drumming on the title track in a way both modern and timeless. **MB**

Sound Quality: 90%



ARAB STRAP

As Days Get Dark

Rock Action ROCKACT137CD; LP: ROCKACT137LP

When Falkirk duo Aidan Moffat and Malcolm Middleton reformed Arab Strap they were determined 'not to produce mediocrity' and their first album in 16 years is an uncompromising mix of melody and raw, unflinching lyrics. Over electronic drums, guitars, keyboards and occasional brass and strings, Moffat intones tales of love, lust, loss and loneliness, which all take place under the cover of night, with characters that include the debauchee of 'Here Comes Comus!' and the desperate self-harmer of 'Sleeper'. But the songs are all delivered with a warmth and a pawky wit, and 'The Turning Of Our Bones' brilliantly captures both the fragility and power of life. **MB**

Sound Quality: 85%



THE HOLD STEADY

Open Door Policy

Positive Jams/Thirty Tigers 55080CD; LP: 54885LP

On their eighth album the Brooklyn sextet purvey a singular take on Americana. Lyrically, they overlap the flamboyant narrative style that Bruce Springsteen brought to his early songs of the heartland and with his half-spoken, half-sung delivery Craig Finn packs in so much detail that each song unfolds like a mini novella. With its big guitars, 'Lanyards' sounds suitably panoramic, but like their compatriots The National and Wilco, The Hold Steady also take liberties with rock forms, bending their song structures into unusual shapes, a prime example being 'Unpleasant Breakfast' with its slippery rhythms, siren-like keyboards and punchy brass section. **MB**

Sound Quality: 80%



TEENAGE FANCLUB

Endless Arcade

PeMa PEMA14CD; LP: PEMA14LP

'Home' opens proceedings inauspiciously with a simple strummed chord sequence, and despite some tasty lead guitar explorations, at 7m it outstays its welcome. But the other 11 tracks are more succinctly structured with the band's trademark dovetailing guitars and vocal harmonies, and subtle keyboard coloration. *Endless Arcade* may lack the swagger of signature albums like 1991's *Bandwagonesque* – although they come close at times, particularly on the animated 'Warm Embrace' – but this mellower approach yields its own gems like the bittersweet, Beatlesy 'The Sun Won't Shine On Me' and the serene closer 'Silent Song'. **MB**

Sound Quality: 85%



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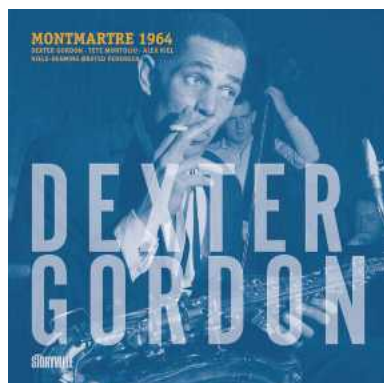
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DEXTER GORDON

Montmartre 1964

Storyville Records 1018410

A new addition to the list of live recordings from the tenorist's 14-year sojourn in Denmark, this one captures him well settled in at Copenhagen's Montmartre club, backed by Spanish pianist Tete Montoliu, local drummer Alex Riel and the already-virtuosic 18-year-old bassist Niels-Henning Ørsted Pedersen. You can hear the same lineup at the same place a month earlier on an album from Danish label Steeplechase, which like this one includes 'Manha de Carnival' and Gordon's catchy signature theme 'Cheesecake'. But here, in the latter, the quartet reaches new heights, with a performance that's out as a single but is easily worth the price of the album. *SH*

Sound Quality: 80%



ENRICO PIERANUNZI/BERT JORIS

Afterglow

Challenge CR7460

Pieranunzi's engaging trio album *Common View* was recorded in Sep '18, with bassist Jasper Somsen producing; Somsen was also the producer a few days earlier when Belgian trumpeter, arranger and composer Bert Joris joined the pianist in the same studio for the duo tracks heard here. Once a conservatory professor, Pieranunzi draws on classical influences rather than mining the jazz tradition, while Joris ranges from an almost Alpert-like joviality on 'Millie' to a 'Darn That Dream' wistfulness on 'How Could We Forget'. And with their great depth of musicianship and unflinching rapport, the two produce unhackneyed music that's beguilingly ear-catching. *SH*

Sound Quality: 85%



QOW TRIO

Qow Trio

Ubuntu Music UBU0078 (CD and LP cat no)

Big-hearted Irish tenor man Riley Stone-Lanergan looks back here to the sax giants of the past, in a format inspired by the piano-less Sonny Rollins trio recordings of the 1950s. It's a boisterous, joyful set propelled by veteran drummer Spike Wells, who in decades gone by worked with Tubby Hayes and visiting American stars. On bass is Eddie Myer, who is also part of indie rock band Turin Brakes. 'Qow', the 1974 Dewey Redman tune, gets a gutsy workout while 'Qowfirmation' is a tribute to the be-bop greats and 'Pound For Prez' a nod to Lester Young. From the opening 'Slow Boat To China' to the swinging 'It's All Right With Me', this is good to the last drop. *SH*

Sound Quality: 90%



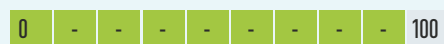
VERONICA SWIFT

This Bitter Earth

Mack Avenue MAC1177; 2LP: MACLP1171

For her second album, the wondrously talented singer who scats like Ella and swoops like Sarah opens with a song of Dinah's, although she takes on the 2012 Max Richter mashup rather than Washington's 1961 track, and her quick vibrato is more ruffled velvet than brass. And her choices are more about content than style. 'You've Got To Be Carefully Taught' is *South Pacific*'s once-controversial poke at racism while 'He Hit Me (And It Felt Like A Kiss)' is the song King and Goffin wrote when Little Eva told them about beatings from her boyfriend. Then, from 'I'm Hip' composer Dave Frishberg, there's 'The Sports Page', about the one place in the newspaper where 'you can't say you win if you lose'. How topical can you get? *SH*

Sound Quality: 90%



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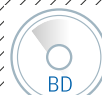
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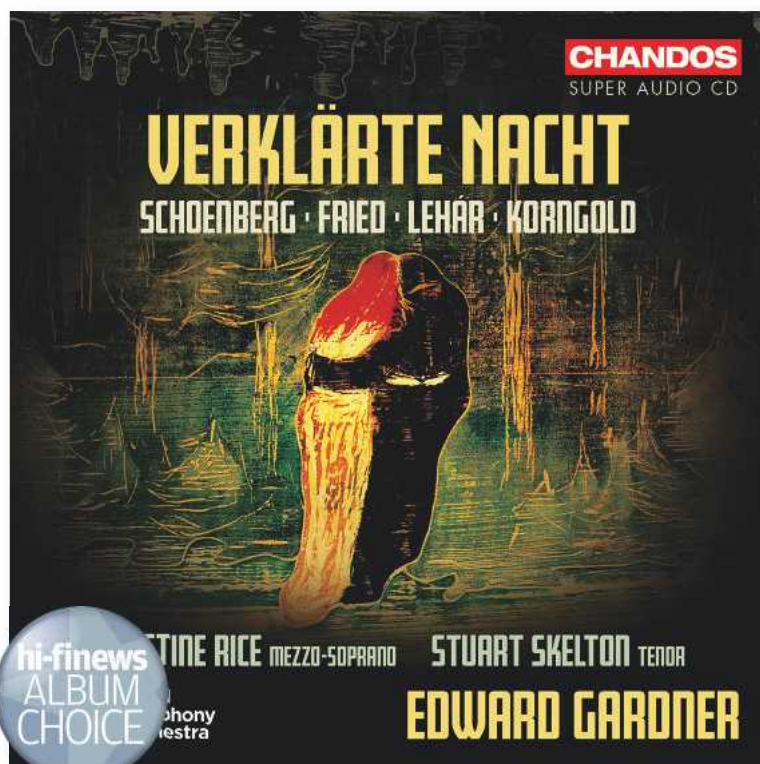
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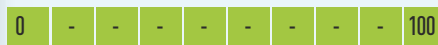
CHRISTINE RICE, STUART SKELTON, BBC SO/EDWARD GARDNER

Works by Fried and Schoenberg (*Verklärte Nacht*),
Korngold and Lehár

Chandos CHSA5243 (SACD hybrid; downloads to 96kHz/24-bit resolution)

Sixteen years before Schoenberg completed his 'Transfigured Night' string sextet, Oskar Fried – mainly remembered for his 1924 Mahler 'Resurrection' 78s – set Dehmel's verses for two voices and orchestra. A late romantic piece of no discernible individuality, it has here some compelling singing by Christine Rice. The Schoenberg (eight tracks provided) is dramatically varied and distinguished by some really soft BBC SO string playing. But Korngold's four tenor *Songs Of Farewell* and the Lehár *Fever* are the real finds here: the latter, with obligatory waltz and even a *Radetzky March* quote, tells of a soldier in hospital! **CB**

Sound Quality: 95%



JERUSALEM QUARTET

Bartók: String Quartets Nos 1, 3 and 5

Harmonia Mundi HMM 902240 (downloads to 44.1kHz/24-bit res)

With 2019 production in the Teldex Studios Berlin, this completes another accomplished Bartók cycle (the even-numbered 2-6 were issued in 2016 on HMC902235). The booklet succinctly traces the defining moments in these works: No 1 relating to his unrequited love for Stefi Geyer; No 3 with its innovative string-writing effects; and No 5 in palindrome form around the 'Alla bulgarese' scherzo. The Israeli players create a consistent smoothness (the cellist, incidentally, has Du Pré's cello on loan from Barenboim) and fluency – eg, transitioning easily in 5(v) between Bartók's changes of mood, like the 'girlish' episode for second violin. **CB**

Sound Quality: 85%



LPO/SIR ADRIAN BOULT

A Musical Legacy

LPO LPO0119 (five discs; downloads to 44.1kHz/24-bit resolution)

Bookended with Elgar – Symphony No 1 (HMV, 1949) and *In the South* (RFH, 1955) – this extensive LPO set is part live, partly drawn from various LP catalogues, principally WRC's. Expertly remastered, it was compiled and issued last year as five download programmes. Besides the obvious English music examples (*Garden Of Fand*; *Lark Ascending*; *Perfect Fool*; *Portsmouth Point*; *Shropshire Lad*, etc) there are rarities like Bartók's *MSPC* and Beethoven's *Eroica*. But the selection equally shows Boult's mastery in lighter/unexpected fare: Delibes, the Dohnanyi *Variations*, Stravinsky's *Circus Polka*, Falla's 'Ritual Fire Dance' and Gershwin's *Cuban Overture*. **CB**

Sound Quality: 75%



OSLO PO/VASILY PETRENKO

Prokofiev: Symphony No 5 and
Myaskovsky: Symphony No 21

LAWO Classics LWC1207 (downloads to 192kHz/24-bit resolution)

Two Stalin-era symphonies, 1940/44, which could hardly be more contrasting. Unlike Prokofiev, Myaskovsky was a conformist, his music described by Richard Taruskin as 'simple, pretty and anodyne'. His short Symphony No 21 was a Chicago SO commission – a continuous piece with a touch of fugal writing and a nice fadeaway ending. After the 'Classical', No 5 is the most popular of Prokofiev's Symphonies and has almost invariably done well on records since the 1946 Koussevitsky. Beautifully recorded and played, Petrenko's only worries me when, in (ii), the 'grotesquely ponderous' episode seems overdone. **CB**

Sound Quality: 90%



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Barry Fox Technology journalist

Barry Fox trained in electronics with the RAF and worked as a patent agent, but he gave that up to enter journalism. He is one of the world's top technology writers

Missing the point

Barry Fox has experienced some well-intentioned yet misleading hi-fi demos over the years, but encouraged by what he'd heard of Gilbert Briggs' RFH presentation he'd thought he'd have a go

Quad's old aspiration 'the closest approach to the original sound' went out of the window when multi-track recording and patchwork quilt editing arrived on the scene. Listen to the legendary Bunny Berigan's 1937 recording of 'I Can't Get Started' and wonder how it would have sounded if his trumpet solo fluffs could have been spliced out with the help of alternative takes. Technically better perhaps, but certainly lacking the fire that makes it so famous.

What so annoyed the hi-fi fraternity about the Memorex advertising campaign I mentioned in passing last month, was that it missed the point. Yes, the recording of Ella Fitzgerald singing scat broke a wine glass when played back at super-loud volumes. But this had nothing to do with audio quality. Recordings with high levels of distortion might well have been better at breaking glass.

NO HARM AT ALL

Yet the controversy that enveloped the Memorex adverts did Memorex no harm at all. The public associated the word Memorex with cassette recording and Ella Fitzgerald, which is why Memorex stuck with phrases like 'Is it live or is it Memorex?' until cassette recording ran out of steam – Memorex too.

Of course, other audio companies have been known to miss the point too. I have huge respect for Danish company B&O, because it has a very long history of combining solid engineering with good aesthetic design. But I was left puzzled by an event it staged a couple of years ago at the Metropolis recording studios in London. The session, organised to launch a new speaker, was billed as an opportunity to hear it with 'live music'.

B&O used the loudspeakers as Metropolis control room monitors

'I was left
puzzled by the
event staged
by B&O'



ABOVE: One of Gilbert Briggs' Royal Festival Hall concerts during which he sought to show that high-fidelity music should be virtually indistinguishable from the sound of live performance

while a band played live in the studio. The speakers handled high levels very well. But then there was a lot of well-intentioned but muddled talk about comparing live and recorded sound.

What we heard in the control room, both while the band played live and when their recorded sound was played back, was all going through the same mic/amp/speaker chain. The only difference

between the two listening experiences was that we were sometimes hearing live and sometimes from the Pro-Tools studio quality digital recorder. So what was the point?

The event brought back memories of a similarly misguided demo by

TDK, when the company hired a private recording studio owned by Genesis musician Mike Rutherford. The object was to hear the difference between TDK's ordinary MiniDisc blanks and MD-RXG Pro discs costing twice as much, and made from higher quality raw materials. This supposedly reduced errors and lightened the load on the servo mechanism.

Rutherford's studio had made twin MD dubs from a 48-track digital master, that were then played back in sync on two Kenwood MiniDisc DM-9090 decks, through a Quad 520 amplifier and ProAc Studio 1 monitors. A/B switching between the decks led both Mike Rutherford and his engineer Nick Davis to say they could hear 'something different', with fuller, less woody, bass, a longer tail on the reverb on voice and cleaner top end. But without double-blind listening tests it was another exercise that missed the point.

TRIED IT MYSELF

On these occasions I always think back to the way audio pioneer Gilbert Briggs promoted his Wharfedale loudspeakers. In 1954 he used the recently built Royal Festival Hall to blind-compare live and tape-recorded versions of the same music and speech. I never heard his demo but I was encouraged to try some live-vs-recorded demos at an Olympia hi-fi show. We had musicians from The Fraser Hayes Four (remember *Round The Horne*?) and Quad amps. The logistics were so nerve-racking that I can well understand why so few people now try it... ☹

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The background may be a cityscape at night, as seen from a luxury high-rise, or a wooded landscape as seen from a secluded country home. The exteriors vary, but the interiors are remarkably similar: huge unbroken expanses of glass, marble, hardwood, and plaster against which are situated towering loudspeakers, massive amplifiers, and various gleaming electronic devices with nary a cable connecting them.

CONNECTION MISSED

There are good reasons for this style of photography – upscale products need to be shown in upscale environments to induce proper associations in the minds of potential buyers. For maximum impact, they also need to be shown with few competing visual distractions – including the cabling necessary to make a system function! Thus, the recurring image of an empty loft/condo/estate graced only by a pair of loudspeakers and, unconnected by wires, their essential amps and signal sources. It is what trade shows call 'a static display'.

Such images are, of course, psychologically arresting, and given their enduring appearances in audiophile publications, probably effective sales tools. There the effectiveness ends and the damage begins, because they promote the idea that good sound is possible in reverberation chambers, which is what most large modern interiors are. Until they are filled with furnishings.

Simply shoving an ostensibly great system into a huge empty space is a recipe for disappointment, yet people attempt it because that's what they've seen in adverts. Audio experts will tell

RIGHT: The 'dead end' of a listening room in Hong Kong with books, CDs and LPs along the rear and side walls. In the rack can be seen a Garrard turntable and electronics from Audio Note while the decorative speaker cabinets house Lowther P7M drivers



you that your room's dimensions are important – they are – but its dimensions aren't nearly as important as the items you bring into the room. Rugs, draperies, furniture, and wall-mounted artworks go a long way towards taming a lively space, even if they violate the widely-worshipped aesthetic of emptiness.

These artefacts bestow many sonic benefits but don't offer the option of really 'tuning' the room. Yet you don't need to throw money at absorber/diffuser panels such as festoon the walls of recording studios to achieve this. Your acoustic solution is as near as your neighbourhood charity shop, where you can pick up carloads of

books, and these days do so cheaply.

Books and bookshelves make ideal acoustic treatment. Libraries are quiet, not merely because talking is frowned upon, but because stacks and stacks of books absorb enormous amounts of sound. They offer many advantages, including medium density and widely varying shapes and sizes. Mix the hardbound and the paperbacks. They can work as both absorbers and diffusers of problematic acoustic energy.

Music fans with large vinyl collections enjoy similar benefits but without the randomness inherent in books. LPs are all the same size, and when shelved tend to form walls – great for containing bass energy, not so good for the midrange.

MIX AND MATCH

Shelves (and the sturdier these are the better) can be placed anywhere in the room – along the walls, or free-standing, and can be loaded or unloaded and rearranged as needed. You may obtain maximum benefit by placing them along the side and back walls of your listening room while keeping the front wall – where your speakers are – relatively uncluttered, a variation of the 'live end/dead end' theory of room treatment.

Proof of concept: I recently broke down two large listening rooms that were configured this way. The books were first to be packed and I had music playing the entire time. As the project unfolded, the rooms grew livelier.

Is *your* room overly reverberant? Simple solution: add more books. Over-damped? Take some away. Unexpected benefits include rediscovering old favourites, finding titles that you had wanted to read but never did, and then arranging them in artful ways. ☺

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Christopher Breunig Music Journalist

Christopher Breunig trained as an architect but became won over by music and collecting classical recordings. He was *Hi-Fi News*' Music Editor from 1986-2000

Changing platforms

Get over the shock of a depleted bank balance, and system upgrades can find you digging out one old record after another to enjoy new details, as **Christopher Breunig** recently discovered

Do we really know what our records – and especially vinyl – are supposed to sound like? Obviously we know how they variously sound when we don't make changes to our systems. But buy something new and probably you'll experience something quite different.

The Meridian 508 series CD player I had when I was *HFN*'s music editor, back in the 1980s, recently began skipping more music than it played through from end to end – and no amount of cleaning the player's lens or lubricating the rail on which the assembly moved brought more than a short-lived cure.

HERE AT LAST!

Still, 35 years is not too bad for a CD player... and last month I decided to fulfil an ambition initially prompted when editing down Steve Harris's review for *HFN*'s 2016 *Yearbook*, and treat myself to a Hegel Mohican [*HFN* Oct '16] by way of replacement. Then Adam Smith's enthusiastic review of the matching V10 phono stage [*HFN* Mar '21] suggested one might well fit into my system – or at least allow direct headphone listening via my Benchmark HPA4 [*HFN* Nov '18].

After experimentation with the two banks of dip switches (which you can most easily follow at www.hegel.com/Support>V10>Settings), and with the electronics settled in, I have had a great time listening to recordings I have both on LP and CD, playing together in synchronisation, and making comparisons by switching inputs back and forth.

Unsurprisingly, there's a closeness to the presentation with both Hegel designs with a sense of speed, fine detail and a similar soundstage – Julius Katchen's later Decca recording of Prokofiev's Piano Concerto No 3, with Kertész and the LSO, proved barely distinguishable, one replay format from the other.

In a comprehensive *Sound Off!* reply this month [p120] editor PM comments

RIGHT: With a Decca recording of pianist Julius Katchen in Prokofiev, with synchronised playing on vinyl and compact disc, the author found it hard to distinguish one format from the other



on the sonic 'character' of various MC pick-ups and how the measurements correlate. It reminded me of when I replaced a Linn LP12 set-up, with a ZYX R1000 AIRY-3 MC, with the Rega RP10/Aphelion [*HFN* Aug '15]. It was less forward sounding, the Rega also possibly not best matched to my MC preamp.

That issue now resolved, I looked along my shelves for things unplayed for years. I had forgotten, for instance, how beautiful the Bavarian RSO accompaniment was, conducted by Rafael Kubelík, to Dietrich Fischer-Dieskau's DG remake of the Mahler 'Wayfarer' song cycle [currently a download from 449 7352].

And even more of a revelation was Stephen Kovacevich's very early version (when he was known as Stephen Bishop) of Beethoven's Piano Sonata Op.101, made for EMI. (Was it ever reissued on CD?) He moved to record Beethoven for Philips, then did all 32 Sonatas for EMI, at Air Studios [Inside the Studio, *HFN* Mar '21], by coincidence a mere stone's throw from his home.

EMI issued this first recording in 1966, coupled with Op.109, on one of its



cheap labels [HQS1017]. Playing it again I thought it was one of the most beautifully conceived interpretations this music – or indeed any Beethoven piano sonata – has ever had on records.

DEVIL IN THE DETAIL

One of my favourite 'test discs' is the old Decca LP version of Prokofiev's *Peter And The Wolf*, with Sir Ralph Richardson narrating and the LSO conducted by

Sir Malcolm Sargent [DPA617/18]. I think I had not quite fully appreciated until now the subtle little details of phrasing (and one or two sly string portamenti) which Sargent brought to this evergreen score. It was a delightful

re-encounter which had me listening right through to the end of the story.

To get back to my original point: we all know how different a Decca *ffrr* mono LP sounds from a Mercury 'Living Presence' record, an RCA 'Living Stereo' from a CBS 'Masterworks' pressing. But the real test is how musical the recorded *performance* sounds – and just how that impression deepens as you introduce upgrades to your hi-fi system. ☺

'I looked along
my shelves for
things unplayed
for years'

Harmonic Resolution Systems – chassis noise control



LEFT: Vortex. RIGHT – CLOCKWISE FROM TOP LEFT: DPX Damping Plates; Vortex; Helix; Nimbus Assemblies; ADH record Weight.

The new HRS HELIX is a development of the Vortex, specifically designed for components with stiffer and heavy metal chassis. Each HELIX has an adjustable screw to allow height adjustment. A shallow profile means it has low visibility in use. Sold in sets of 3 but up to 5 can be used for larger chassis for optimal results.

HRS are the market leaders in achieving the lowest noise floor from any audio component. Developed from many years' experience in the aerospace industry, their isolation products are the reference standard for broadband noise reduction in audio and video signal reproduction.

All HRS Nimbus products are broadband in operation, reducing noise across the entire audio frequency bandwidth. Their custom elastomer compound and unique structural materials remove resonances at the point of contact. The noise floor is reduced by up to -20dB.

The proprietary HRS polymer interface used with all Nimbus products significantly reduces the negative impact of structures and

airborne vibration to the audio signal performance. The result is increased resolution, speed and dynamics, whilst removing the harsh distortions created by these resonances

The Nimbus Assemblies, the Vortex, and the new Helix eliminate bottom panel resonances; the Damping Plates work to control top panel resonances. When used as a complete system, the sound upgrade is much more than the sum of the parts.



Andrew Everard Reviewer/writer

Andrew Everard has reviewed consumer electronics for over 30 years and is still effortlessly enthusiastic about new developments, discovering new kit – and music

An opportunity missed?

The way we do everything, from shopping to enjoying music, could well have changed forever. So is the consumer electronics industry rising to the challenge, wonders **Andrew Everard**

Chances are that you, like me, are sick and tired of reading articles about everything from shopping to fashion, food to motoring (or lack thereof) written with a 'pandemic angle'. Quite apart from anything else, writing such pieces for a monthly magazine with significant lead-times is fraught with pitfalls – not least because I am writing this at the beginning of February and I have no idea where the news agenda will have shifted by the time you read this.

However, there is a 'One thing I still don't understand, Inspector' I feel I have to address, and it came up the other day when I was discussing with a friend the fact that a long-awaited new feature film had premiered not in the nation's cinemas, but on streaming service Netflix.

OBSELETE TECH

Our conversation ranged over the much-delayed release of the 25th Bond film, *No Time To Die*, and news reports that some scenes may have to be reshot as some of the gadgets featured in the film – which was originally slated for release in Nov '19, but is now coming this autumn, or perhaps even in 2022 to mark the 60th anniversary of the franchise – will be outdated by the time it eventually hits the silver screen.

After all, as the Bond series is a flagship of product-placement, where's the point in having 007 wielding a phone that is two years out of date? We also discussed the 'end of the world as we know it' scenario of the film's producers finally biting the bullet, and releasing the title on streaming platforms despite their earlier 'has to be seen in cinemas' protestations. And then the subject arose of how keen we'd be to return to cinema-going even if/when some degree of normality is restored.

RIGHT: Definitive Technology has launched its Demand Series speakers – LE D17 floorstanders and D5c centre – with the suggestion they can be used in a multipurpose set-up to make more of the music/movie streaming that is the 'new normal'



All of which led to some discussion of how well the audio/home cinema industry has embraced the changes in our lifestyle, compared to some other sectors. We're already seeing the UK tourist industry shaping up for a summer where many of us may well go to domestic resorts – if we can – and last summer

saw a run on hot tubs and barbecues in anticipation of 'staycations'. But where is the boom in marketing for, and sale of, home entertainment systems?

Another acquaintance in the higher end of the hi-fi sector said to me the other day that 'We seem to be

doing pretty well', but out in the mass-market I just don't see manufacturers and retailers pushing hard enough to encourage customers to upgrade their home entertainment systems in order to make the most of the new world of Netflix/Amazon Prime/Spotify/Facebook streamed concerts and the like.

Everything has changed, and instead of waiting for the live album of that gig we couldn't attend, or the Blu-ray release of that blockbuster movie, we're now surrounded by unique and 'first run' releases, which are waiting to be enjoyed.

It's not that the signs of a fundamental shift haven't been there for a while: most in retail will acknowledge that the High Street is unlikely to come back in the same way, and that online is the way forward. And I've been talking to a (non-hi-fi) client of mine, whose business has shifted substantially online, about the only possibility for a bricks and mortar future being as a 'destination' retail set-up, cramming in a lot of added value beyond just 'selling stuff'. But then that's a future the hi-fi industry should have been contemplating for some time.

ANSWER ON A PLATE

What's more, even in these 'uncertain times', the money is out there. Those still in work have saved on expensive overseas holidays, put off buying a new car when they're driving so little, and probably delayed plans to move house. In other words, they have no shortage of cash available for a spot of nest-feathering, if only they're pointed in the right direction.

For years, the hi-fi/home entertainment industry has been wrestling with the old question 'How do we attract a new generation into buying our products?'. I'd suggest that it's now been handed the answer on a plate – and one that should be grasped immediately. ☺

'Where is the boom in the marketing of AV systems?'



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Adam Smith Hi-fi reviewer

Electronics engineer, music lover and former loudspeaker designer, Adam Smith is known to dabble with all audio formats, but is a committed vinyl fan at heart

Cap in hand

We live in a throwaway society, where it's hard to get repairs to any electrical goods. Then there are the well-meaning hi-fi bodgers... **Adam Smith** recounts some near lethal things he's found

Being an engineer, the throw-away society saddens me. This has been on my mind recently, as not only did I discover that my wife's expensive five-year old hairdryer is apparently unserviceable, now that it has failed, but I've also been using the latest lockdown to work through a pile of non-working hi-fi equipment.

At this point, I should confess that my workshop has become something of a Blue Cross shelter for unwanted hi-fi. It hasn't quite got as far as finding items left by my gate overnight with a note saying 'unable to care for this...', but this may not be far off. I hate to see anything useful that I know can be repaired just thrown away, and if I can bring an item back to life for someone else to use, then I'm more than happy to do so.

BODGE A JOB

Unfortunately, I've noticed an increasing trend over the last few years. It seems that a lot of the broken equipment I take in has failed not due to age, accidental mishap or bad luck. Rather, it seems to be down increasingly to the curse of the 'bodger'...

Take a recent arrival. It's a lovely 1980s Alphason Athene preamplifier – a model known for its high quality phono stage. The unit was basically functional but the phono stage was not working. The previous owner acquired it like this but was unable to find anyone who would look at it, due to the unavailability of circuit diagrams. I saved it from being scrapped and discovered the fault to be down to a transistor in the dedicated power supply section for the phono circuitry.

Said transistor was not only non-original but had been fitted the wrong way round. Admittedly there was no orientation labelling on the PCB, but the failed item was on the positive supply rail.

RIGHT: All racked up and ready to go... the Yamaha Centennial Series CX-10000 preamp that the author lovingly brought back to life – by swapping out no fewer than 108 capacitors



The negative supply rail used identical parts and so it was easy to copy that to ensure correct fitment. As to the component itself, had it been replaced because it was obsolete? Er... no. It's still very much in production and available at just 40p a pop from RS Components!

COPPER COAT

I could reel off reams of these disaster stories. Such as the CD player that was 'upgraded' by covering everything inside the machine with self-adhesive copper foil. Undoubtedly the sonic results were precisely zero, but the functional effects were very noticeable, as the foil gradually unstuck itself and shorted things out inside. The last casualty was the back of the mains power switch, at which point the fuse blew.

Then there was the amplifier that had been 'repaired' with new capacitors. Firstly, these had been fitted so badly with so many dry joints left that the unit had no chance of working properly. Even more frustratingly, the original fault was actually a blown regulator and absolutely nothing to do with any of the capacitors. This was another victim of the insidious

cult of blanket 're-capping', which we are assured by Internet experts will cure all ills. Sadly it's a poor substitute for actual fault-finding and sometimes causes more problems than it solves.

That is not to say that this approach can't work, however. My treasured Yamaha Centennial Series CX-10000 preamplifier was purchased non-working. Its refusal to start was indeed down to a bodger having soldered a wire link across the standby switch, but its reluctance to behave subsequently was purely electrolytic capacitor related.

After finding the first 30 tested to be wildly out of specification, the decision was taken to replace them all. All 108 of them! That was a dull weekend, let me tell you, but the results were worth it.

I'LL TAKE IT

The lesson here is that equipment can and does fail, but please don't meddle with things if you're not sure what you are doing. An ill-advised 'upgrade' might well make things worse and, in the case of that copper foil and mains switch, could even be dangerous. On the other hand, most things really can be repaired, so please don't just throw them out without first considering whether or not they can be saved. If all else fails, just leave them by my gate and I will have a go! ☺

'The previous owner found no-one willing to look at it'

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Steve Harris Contributor

Steve Harris edited *Hi-Fi News* between 1986 and 2005. He loves jazz, blues music, vinyl and vintage hi-fi and anything that makes good music come to life

Round the horn

When a serious collector found that old 78s could be realistically transferred with his old gramophone, Nimbus was sufficiently impressed to adopt the idea. **Steve Harris** tells the story

Collectors of early opera recordings and connoisseurs of country blues might be worlds apart, but they have one thing in common. They're in thrall to 78rpm discs, and to the engineers or enthusiasts who transfer these to LP or digital media.

Since 1990, through Nimbus and its Prima Voce series, Norman White has offered reissues of Caruso, Björling, Gigli and many other singers. But recently, he's been listening instead to Blind Lemon Jefferson, Big Bill Broonzy and Leroy Carr, among a host of blues artists who recorded in the late 1920s and early '30s.

And the Saydisc Matchbox Bluesmaster series, which was originally released on 42 LPs between 1982 and 1988, has now re-emerged as seven six-CD box sets.

CONVINCING DEMO

Norman White was formerly a principal baritone with Scottish Opera. He also became a serious collector of vocal 78s and the owner of a rare EMG horn gramophone. Dissatisfied with the sound of 78s via existing CD or LP transfers, he tried playing a disc on the gramophone and recording it by microphone. When he demonstrated this technique to Nimbus Records in Monmouth, the company's directors were convinced. Very soon Prima Voce was launched with Norman as consultant.

Nimbus then built a very special gramophone and installed it in the company's own 550-seat auditorium. Its huge 6m-long fibreglass horn works into an EMG pick-up that uses hand-cut thorn needles, used with a Technics quartz-lock turntable. A soundfield-type microphone at the listening position picks up the reverberant hall sound as well as direct sound from the horn. It's argued that this helps to portray artists as they would have sounded in performance.

RIGHT: Norman White with the Prima Voce set-up housed in the 550-seat auditorium at Nimbus Records in Monmouth. It comprises a giant fibreglass horn and a Technics variable-speed turntable



PHOTO: NIMBUS

However, as time went on, White began working with later post-1925 electrical 78s and LP-era recordings, and these are transferred conventionally.

Last year, as Nimbus director Adrian Farmer explains, lockdown provided time for a clear-out. 'In our 78rpm archive we found several dozen boxes of white-label LP test pressings with quite a few of

the Bluesmaster Series. We offered them to the original client, Gef Lucena at Saydisc, who saw this as an opportunity to resurrect what had been a successful series on LP, but had never made it to CD.

'Gef managed to supply further examples of all the

releases in the series, and with the virgin LP test pressings, Norman received very clean source material for transfer.

'Around 20 years ago, Norman equipped himself with enough modern electronics and software so that he felt he'd be able to give a good representation of 78s by transferring them electronically, rather than by acoustic horn. So it hasn't in the least bit been a struggle for him to turn his attention to these LPs.' Norman uses cartridges specially built by Expert Pickups, and 'a wonderful 50-year-old

BBC Transcription Service deck', which was made by EMT. Using Sound Forge software, he can apply techniques not available when the LPs were made in the '80s, often making a major improvement to the sound by removing rumble.

For the 1980s Bluesmaster LPs, 78s were provided by collectors under the editorship of Austrian record collector, musician and producer Johnny Parth. Transfers were done by Hans Klement at Austrophon Studios in Vienna. But 'those original master tapes for the vinyl releases vanished long ago'.

WELL DOCUMENTED

Back in 1966, partnering with Chris Strachwitz of Arhoolie Records in the USA, Johnny Parth had co-founded the Roots label, which ran until 1978. Then in 1986, he founded Document Records, again devoted to pre-war blues. In 2000 he sold Document to its present owners, Gary and Gillian Atkinson, in Dumfries.

Some Bluesmaster titles, it seems, have actually been transferred to CD before, with Document still listing, for example, versions of the Texas Alexander volumes, using the same artwork though with extra tracks. But as claimed, it's only now that the complete series is coming to CD: a six-disc set selling at only around £25, they'll be hard to beat. ☺

'A six-metre
long horn
works into an
EMG pick-up'



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Reviewed: August 2019 issue

As its name suggests the Icon Audio 40MkIV is capable of producing 40 Watts of power from its KT88 valves – although pushed hard we managed 50 Watts. There's also three feedback settings (high, low and zero) and the ability to run it in ultralinear or triode mode, as well as fixed bias. So there's wide room for experiment here, including the rare zero feedback option. It means users can find the set-up that suits them best.

And what a sound it is! Used with our Martin Logan electrostatics it was both vividly dynamic and spacious. The output transformers give clean powerful bass – a world away from the occasional softness of some other valve amplifiers. With its huge soundstage and thunderous dynamics the Icon Audio is a long way away from valve amplifiers of yore. Truly a modern classic.



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YOUR VIEWS

Sound Off!

Correspondents express their own opinions, not those of *Hi-Fi News*. We reserve the right to edit letters for publication. Correspondents using e-mail are asked to give their full postal address (which won't be published). Letters seeking advice will be answered in print on our Sound Off pages, but due to time constraints we regret we're unable to answer questions on buying items of hi-fi or any other hi-fi queries by telephone, post or via e-mail.

NEW DECK FOR OLD? PICK-UP PROFILES, AND AN UPGRADE DECISION

I have a Pink Triangle turntable that I bought new in the mid '80s which now has a Clearaudio Unify arm carrying a Koetsu Rosewood Signature cartridge (rebuilt five years ago). I also have a Michell GyroDec SE deck equipped with an Origin Live Silver arm and Ortofon Rondo Bronze pick-up. Which turntable better lends itself to upgrading, or should I buy an entirely different model?

As a point of interest, when the Koetsu pick-up was rebuilt, it was returned with a Fritz Geiger tip. As the cost of a re-tip is typically lower than that of replacing the cartridge, what are your thoughts on re-tipping existing cartridges, including differing tip profiles?

It follows that the preferred tip profile would be one that closely resembles that of a cutting head, yet that tip is designed to perform a cutting role. I suspect that a vinyl record wouldn't last long with such a tip. So, does the tip profile affect the sound or is the effect minimal?

Roger Newton, via email

Ken Kessler replies: As the two decks you have are quite different (though both are belt-driven), it's impossible to say which to upgrade as they are *not*

mutually exclusive. The Pink Triangle is a collectible, classic 'Linn Fighter', if a bit fiddly, and the GyroDec SE is an exemplar of fine engineering. I am guessing you seek a high-end upgrade so would suggest that *you* decide which deck to keep, and then consider something ultra-fresh, like the cool, new direct-drive version of the Thorens TD-124, Mark Levinson N°5105 [*HFN* Jan '21], VPI's VPI HW-40 Anniversary [*HFN* Apr '19] or the EAT Fortissimo.

Re-tipping is a thorny subject, and I am one of those who would always opt first for the factory refurbishment, as I need to keep my cartridges standard if I am to review with them. That said, I always cherished my Deccas retipped by the late and sorely missed Garrott Brothers. Fortunately, London Cartridges offers a retipping services for all Deccas and Londons. Koetsu has always been the go-to for new styli, but I appreciate the temptation of experimenting with stylus profiles not offered by the maker, eg, the aforementioned Fritz Geiger.

There is really only one question to ask, if you have heard and prefer a different profile tip, and that is this: does the retipping firm have a good reputation? I've heard horror stories about some aftermarket retipping, but if you've found a good firm, go ahead.



ABOVE: Mark Levinson's belt-driven N°5105 turntable costs £5799 with arm

Send in your views to:

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Phantom flautist

PUBLISHER'S PLANT OR SPOOF? WE BRING YOU THE TRUTH...

In his recent Investigation feature on Classical literature [*HFN* Feb '21], under the title 'Phantom Flautist' Barry Fox mentions an entry in the 1980 *New Grove Dictionary Of Music And Musicians* for flautist Dag Henrik Esrum-Hellerup, pointing out that it was a 'phoney' entry. I wonder if this might have been a 'Mountweazel' – a term coined by *The New Yorker* writer Henry Alford to denote a copyright trap. In other words, publishers insert a fact they know to be false in order to spot when someone else has copied their work.

Such fictitious entries in maps, gazetteers and dictionaries have been used for decades to help identify, and in many cases successfully prosecute, examples of plagiarism. Has Barry uncovered an instance of this, rather than it being an entry by someone playing a practical joke?

Mike L, via email

Barry Fox replies: It was an editor on a classical music magazine who first tipped me off on this, soon after publication. I think he may have had his own reasons for wanting someone else to write about it. I called Grove and asked if the entry would be in the pioneering CD-ROM edition it was planning to publish. The response I received, and the fact that the entry disappeared from future print editions, leaves me in no doubt that it was not a deliberate plant.

WhitWorld

OUR HI-FI WORLD THROUGH THE EYES OF WHITWORTH



"MY BARBER BEING CLOSED
IS PLAYING HAVOC WITH
THE STEREO IMAGE."

My classic kit

IT'S VINTAGE HI-FI BUT '80S AND '90S STYLE

My audio roots date back to the '70s and a Goldring G101 belt-drive turntable. Over the years I built up a reasonable, though budget, system of Pioneer PL-12D deck, Sansui AU-G11X amp and TU-D33XL tuner feeding Tannoy M20 Gold speakers. It sounded really good. Then in 1987 my better half Christmassed me an LP12. This was joined by a Meridian 506 CD player in 1994 followed by a 551 integrated amp a year later, a 504 FM tuner in '96 and A500 passive speakers in 1999. Every upgrade delivered a step-up in sound quality.

The next big upgrade came in 2017 when we moved house to the Isle of Wight. At last I could set up the system in the traditional 'either side of the fireplace' position. It sounded even better and I started to listen to more music than I had done before. It was when I was re-checking the positioning advice in the manual for the A500s that I fell across a reference to bi-amping using a 555 power amp in harness with the 551. Following 'just a quick look' on eBay another 555 was added to the rack, after having it serviced and re-capped.

So far, all this was in the analogue domain but in the meantime I had also bought a Meridian Explorer to deal with FLAC and MP3 files on my laptop. Wow! A proper DAC can turn a PC/HDD/NAS into a decent audio source! I then than kept an eye on eBay for, what else, a Meridian Director DAC. This is now fed by a



ABOVE: Close-up of the Linn Sondek LP12 turntable Mike received as a gift in 1987

2TB Intel NUC mini computer, which handles all the streaming and is now home to all my audio files.

So I like to think I have a fully up-to-date 21st century vintage hi-fi system from the '80s and '90s! Had I the time, room and budget I would be exploring some of the milestone brands and units I have lusted over since starting this hi-fi journey. There are too many to list, and in any case every reader will have their own fond memories. So go ahead: have a dabble in vintage hi-fi. It's fun and the aural delights make it worth it.

Mike Locke, via email

Steve Harris replies: If you want to end up with a great system, start by finding a partner who's willing to buy you a turntable. Seriously, Meridian's 500 Series tends to be overshadowed by the bigger digital systems, but it was an excellent range. Plate glass tops gave the casework a solid luxury feel, and were sonically as well as cosmetically beneficial. A typically distinctive and effective touch from the mind of Allen Boothroyd, Meridian's co-founder and brilliant industrial designer, who sadly passed away last year.



ABOVE: Mike's 'vintage' system with his Meridian electronics and A500 loudspeakers

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Can a £39 insect make all your CD files sound better than Hi-Res?

Yes and no: Using the same equipment and a quality DAC, a 24/96 file (for example) will always sound better than a CD 16/44.1 file ... but, even a single JitterBug will often allow a CD file to be more musical and more emotionally stimulating than a Hi-Res file without the benefit of a JitterBug.

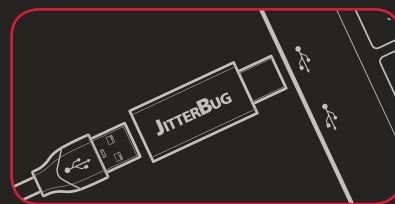
Noise is the problem. Real noise—the kind you can't hear directly. Most often, the word "noise" is used to describe tape hiss or a scratch on a record, but these sounds aren't noise; they are properly reproduced sounds that we wish weren't there.

Problem noise is essentially random, resonant or parasitic energy, which has no meaning. It can't be turned into discrete sounds, but it does compromise signal integrity and the performance of everything it touches.

JitterBug's dual-function line-conditioning circuitry greatly reduces the noise and ringing that plague *both* the data and power lines of USB ports, whether on a computer, streamer, home stereo or car audio front-panel USB input.

A single JitterBug is used in between devices (i.e., in series) as shown below. For an **additional "wow" experience**, try a second JitterBug into another USB port on the same device (such as a computer). Whether the second port is vacant, or is feeding a printer or charging a phone, JitterBug's noise-reduction ability is likely to surprise you. No, the printer won't be affected—only the audio!

While a JitterBug helps MP3s sound a lot more like music, high-sample-rate files have the most noise vulnerability. Try a JitterBug or two on all your equipment, but never more than two per USB bus. There is such a thing as too much of a good thing.



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In a spin over loudspeakers

DEALERS, HOME DEMOS AND A DILEMMA OVER WHICH NEW MODEL TO CHOOSE

I have steadily upgraded to a point where each new piece of equipment costs a considerable amount of money – albeit not quite as much as those detailed by Mr A Nicholls in the Jan '21 Sound Off pages [see p121]. I have used different ProAc speakers for a few decades and am now considering upgrading. But there are so many brands available even at the £10k-£30k level that it's difficult to know which I would find most satisfying, especially when the actual room will affect their behaviour.

B&W's 800 series seems popular, ProAc makes more upmarket models and I have liked all YG speakers when I've heard them, plus brands such as Kii sound promising. I've enjoyed listening to Wilson's Alexas but not Watt/Puppies, so would I like the Sabrinas [HFN Aug '15]?

I think my preference is for a sound I find 'natural and lifelike' but everyone probably thinks that! It seems unfair to expect half a dozen different dealers to bring a speaker to my home for a demo with only a small chance of a sale. My current dealer is contemplating retirement, so his recommendation may mean no long-term customer support.

Do I compare his recommendation with my current speaker and upgrade or not based on my opinion of one alternative? How

long do I need to listen to avoid my ears becoming biased towards what they are used to? Many other enthusiasts must face similar problems and the only advantage of not knowing which model to buy is that by doing nothing I'm more solvent than I would be otherwise!

Peter Cramb, via email

Ken Kessler replies: If there is any element of audiophile concern which causes more distress than being able to audition components, I cannot name it. The customer is confounded because 1) there are simply too many choices, 2) it is almost impossible to hear even a shortlist of four or five items in the same shop with the exact same system as at home, and 3) home demos have always been awkward, more so post-Covid.

In general retailers hate home demos because they are costly, the consumer always wants to hear something the main shop doesn't stock, most customers are indecisive to the point of psychosis and are notorious time-wasters/tyre-kickers/brochure collectors, and there are a million other challenges. But, of course, the genuine customer rightly wants to hear what he/she is buying, just as the car purchaser wants a test drive.

Specific to Mr Cramb is the pending closure of the dealer, which is simply an unfortunate fact of life, and I share his dismay. But guidance regarding the rest (and it is aggravated by the current moratorium on hi-fi shows) is the need to use common sense.

If you love panels, don't waste your or the dealer's time listening to box-type enclosures. Detest solid-state? Audition a tube amp. If you hate ribbons, love metal dome tweeters, aren't bothered by deep bass – all will narrow your choices before you get anywhere near to the retailer.

In essence, one needs to use common sense. I adore the Sabrinas – Mr Cramb might not. There is no shortcut through this minefield, but one thing is inarguable: Trust Your Ears.

LEFT: Wilson Audio's Sabrina speaker is still available, along with the SabrinaX [HFN Dec '20]



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Let the joyful experience begin!

audioquest

Cartridges: a learning curve

HOW IMPORTANT IS THE FREQUENCY SWEEP WHEN JUDGING A PICK-UP'S PERFORMANCE?

I've been a regular reader of *HFN* since the late 1970s and have no problems understanding your reviews. However, there is one exception, and this concerns the frequency sweep when cartridges are tested. When it comes to amplifiers and DACs, one is usually looking for a flat response with minor dips and peaks. Yet this does not seem to be the case with cartridges.

If you look at the graphs that accompanied the reviews of the EMT Jubilee JSD 6 [*HFN* Jul '19], Koetsu Urushi Vermillion [*HFN* Nov '19] and Lyra Etna [*HFN* May '18] you can see they all differ, yet all these cartridges are rated highly by *HFN*. I can imagine that if the magazine reviewed an amp with a peak of 5dB at 10kHz this would be remarked upon in the lab report. The frequency sweep cannot be unimportant. Or am I wrong on this?

When buying a cartridge it is often supplied with a curve generated by the manufacturer. And many times the curve is a rather flat one. So are there different ways to measure this response? It would be interesting to learn more about how you undertake your lab tests.

Robert Petersson, Sweden

Paul Miller replies: Robert is quite correct in spotting the generally more uniform and 'flatter' response trends of *electronic* hi-fi components like DACs, digital disc players and amplifiers. However pick-up cartridges, just like moving-coil loudspeakers, are *mechanical* transducers and it would be entirely unrealistic to assume they could exhibit the same linearity over the full ten octaves of the 20Hz-20kHz audio range.

A good example is provided by the B&W 800 D3 loudspeakers [*HFN* Oct '16] that form the bedrock of our listening in my media room – the forward response shows undulations of ± 3.2 dB through the midrange and presence allied to a shelved-up treble, but the speakers sound neither 'lumpy' nor bright. Instead their performance is spectacularly uniform, transparent and insightful – as much due to their off-axis response and interaction with the room – all vital qualities in our assessment of the (typically) big amplifiers you see in *Hi-Fi News* every month.

So a frequency response, measured in this way, is really more an indication of tonal trends than outright quality, and much

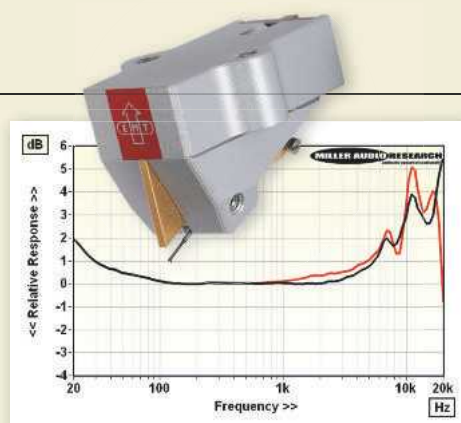
the same is true of the response plots we publish for pick-up cartridges. So the gently declining trend of the Koetsu Urushi Vermillion [right, centre] is entirely consistent with the rich, fulsome bass and sweet top-end exhibited by this model and others in its family. Just as, by contrast, the boosted high treble indicated by the traces for EMT's Jubilee JSD 6 [right, top] and Lyra Etna [right, bottom] correlate with their generally brighter, breezier and more sparkling sound.

To better understand how the pick-ups will behave in practice – and potentially sound like in more detail – we also focus on tracking performance, VTA, on trends of distortion versus level and frequency, and how the compliance and damping of the suspension will best suit a low, medium or high effective mass tonearm. These are all parts of the sonic 'jigsaw puzzle'. As, I might add, are the little details revealed in our response plots that expose mild resonances in the pick-up's cantilever and coils – details that are typically glossed over by the frequency sweep/pen trace plots that have been supplied with some cartridges for decades.

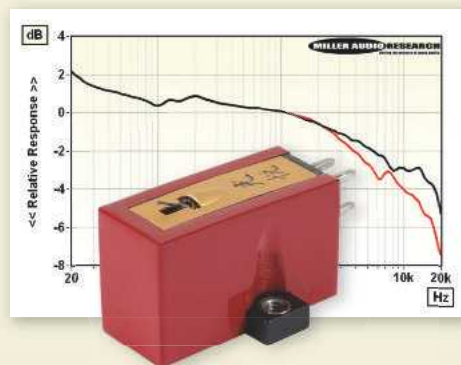
Moreover, by measuring the response of separate lateral (L+R) and vertical (L-R) cuts we can 'visualise' the symmetry (or otherwise) of the pick-up's magnetic field and mechanism. These are the black and red traces in our Graphs (not left and right channels). Naturally, the tonearm/pick-up alignment must be precise if we are to ensure any such test results reflect the performance of the cartridge, and not the hamfistedness of the operator!

To the best of my knowledge, the in-depth tests performed on MM/MC pick-ups, and also tonearms, are unique to *HFN* in the world of hi-fi publishing. Any success, such as we have had, has come from getting creative with the test patterns already cut into industry-standard LPs. I wrote our software about 17 years ago to utilise the stash of legacy CBS STR 112 and STR 120 LPs in my extensive collection of technical discs. Newer vinyl, including Clearaudio's Trackability Test Record [LPT 43039] also features in the current test regime.

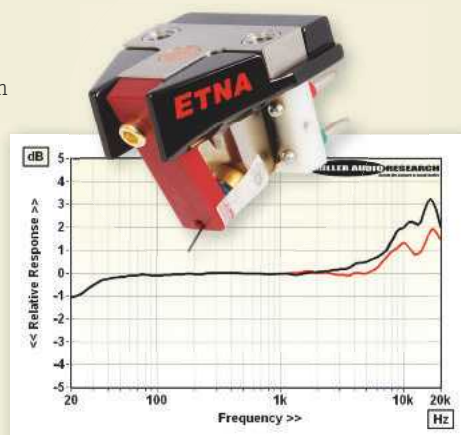
The discs include frequency sweeps of various duration, bandwidth and amplitude, and it was these that inspired the software that gives us the distortion vs. frequency and amplitude vs. frequency (response) plots published as part of our cartridge reviews.



ABOVE: The EMT Jubilee JSD 6 cartridge [*HFN* Jul '19] and frequency response traces as measured in PM's lab tests at -8dB re. 5cm/sec. Graph compares lateral (L+R, black) response versus its vertical (L-R, red) response



ABOVE: The Koetsu Urushi Vermillion MC [*HFN* Nov '19] and frequency response traces as measured in PM's lab tests at -8dB re. 5cm/sec. Graph compares lateral (L+R, black) response versus its vertical (L-R, red) response



ABOVE: The Lyra Etna cartridge [*HFN* May '18] and frequency response traces as measured in PM's lab tests at -8dB re. 5cm/sec. Graph compares lateral (L+R, black) response versus its vertical (L-R, red) response

Get off your high horse!

YOUR RESPONSES TO ONE READER'S DEFINITION OF WHAT MAKES A PRODUCT HIGH-END

I couldn't quite believe what I was reading when I encountered the letter from Mr A Nicholls in the Jan '21 issue! He says: 'I wouldn't have the temerity to send pictures of Arcam, Naim and NAD components to *HFN* and regard myself as owning hi-fi'.

Having been delighted with my Creek Evolution 50A amp I decided to buy the matching Evolution 50CD player. It cost nearly £1000, more than I'd ever paid for a single component, yet by Mr Nicholls' assessment I can't even call my components hi-fi.

For streaming I use a Raspberry Pi with Wolfson Audio card feeding a Creek DAC via coax. The Pi acts as a Squeezebox clone (I use a ten-year-old refurbished PC running Logitech Media Server). This Raspberry Pi lash-up cost me less than £50.

My heart bleeds for Mr Nicholls that he has to currently make do with the dCS Paganini four-stack when ideally he would like to upgrade to the Vivaldi four-stack. Most *HFN* readers enjoy reviews of the really high-end stuff even though they know it's a pipe dream. But this doesn't mean cheaper systems aren't hi-fi.

A Tate, via email

At first I felt a profound feeling of inadequacy as Mr Nicholls lauded his financial superiority over this pauper member of the hi-fi proletariat. But then my mood elevated when I remembered the old adage: 'A fool and his money are easily parted'. Thank you, Mr Nicholls, for reminding us of the wisdom of sages past.

Clive Kerr, via email

I was flabbergasted by A Nicholls' recent letter 'Counting the cost', its mocking attitude to hi-fi enthusiasts who derive their enjoyment from affordable systems was crass and contemptible. The law of diminishing returns kicks in with most hobbies and this helps to level the playing field for many of us with more limited resources. So, while we may not have the wherewithal to spend the price of a house on a hi-fi system we are getting a large percentage back in return for more modest funds spent.

Philip Livingstone



ABOVE: Mr A Nicholls shares his thoughts on the cost of hi-fi relative to its quality

I was saddened to read Mr Nicholls' letter in your Jan '21 issue. I too have a pair of B&W 800 series speakers, albeit only the 803 D3s. My B&Ws are bi-amped and the system (in my opinion) sounds truly wonderful. I fear Mr Nicholls may not have spent his money wisely (a bit of sarcasm here) as my set-up costs a quarter of his and I do not need to supplement my sound with subwoofers.

Neville Octon, via email

What defines a high-end system? I would suggest it has nothing to do with cost, so much as the pleasure a system brings to its owner. On that basis, my modest yet great sounding, sub-£10k Naim/Innuos/PMC-based system, which I had the 'temerity' to expose in the Sound Off pages [*HFN* Jul '20], is clearly high-end.

Denis Holliday

Paul Miller replies: Well said, all of you who have written to us on this subject. I'll admit to being uncomfortable with the tenor of the letter in question, but the spirit of democracy allows for everyone to have a viewpoint regardless of whether I, or the vast majority of our readers, hold similar sentiments. As I said at the time, '...*HFN* is all about the journey, as much as the destination, and every audiophile is welcome aboard our train'. Toot, toot!



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HFN2021

Sony PS-Q7

More miniature magic from a brand proud to beat its own path came in 1982 in the form of probably the smallest hi-fi turntable ever made. How does it sound today?

Review: **Tim Jarman** Lab: **Paul Miller**

When Technics released its SL-10 turntable in 1979 [*HFN* Apr '19], it was evident that a record player did not have to be large, overly expensive or complicated in use to give top quality results. So compelling was this concept that soon all of the big players in the Japanese hi-fi industry were racing to produce something similar. Well, almost all. Sony, the great master of miniaturisation, was not a company to imitate others.

The SL-10 boasted a footprint the size of an LP sleeve but Sony's miniature, the PS-Q7, was closer in size to the cover containing a 7in single. Designed to match the FH-7 micro system, the new model measured just 215x58x235mm (whd). This saw the platter reduced to just a small hub in one corner of the plinth with the record overhanging the rest of the cabinet on two sides.

A NEW ANGLE

Unlike the majority of square, compact turntables that came from Japan in the early '80s the PS-Q7 did not have a linear tracking arm. The small size of the plinth did not allow a conventional radial type to be used either, for there was no available point to mount the pivot that would yield an acceptable tracking angle over the

complete surface of a record. The problem was solved by using an 'L-shaped' arm, with the pivot located at the rear of the deck near the centre. The right-angle bend in the arm resulted in the tip of the stylus tracing a line which was roughly along the inside edge of the lid, meeting the requirement for compactness without having to make the arm excessively short.

The loading this unusual arrangement put on the arm bearings meant they had to be of unusually high quality, as did the construction of the rest of the arm. The short part of the 'L', concealed by a curved plastic moulding, was pressure die-cast with the bearing housing an integral part.

ABOVE: While most miniature turntables from Japan had a footprint the size of an LP sleeve, Sony's PS-Q7 was little bigger than a 7in single

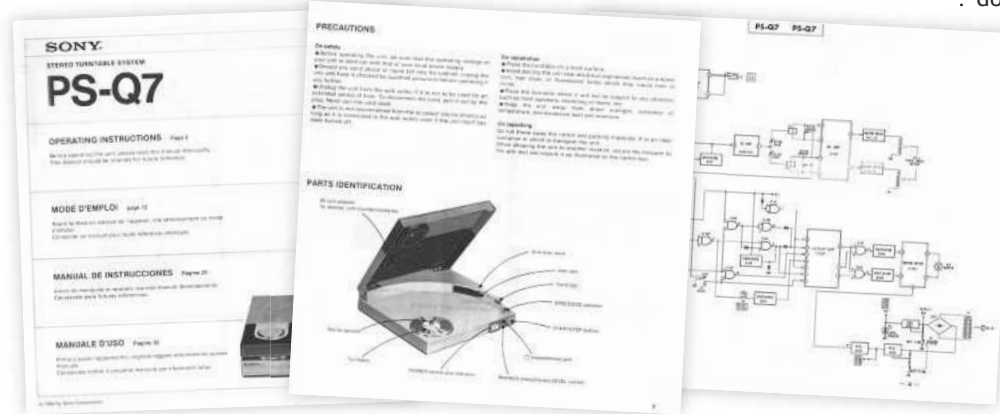
The long part was visible and was formed from a length of square alloy tube. This was tipped with a specially designed moving-magnet cartridge that employed a 4-pin mounting, similar to Technics' T4P system but smaller and thus incompatible.

MAJOR FEAT

Meanwhile, the arm was balanced by the combination of a fixed counterweight and an adjustable spring whose position was pre-set at manufacture to yield 2g of downforce. Since only one cartridge type was available there was never any need for the user to adjust this.

The automatic movement of the arm was operated by a dedicated motor rather than the usual method of using gears driven from the spindle of the platter. While this approach saved space, it added complexity. The motor required a complicated arrangement of digital electronics to

LEFT: Pages from the user manual [left], and service data with a block diagram revealing the PS-Q7's hidden complexity



coordinate its sequences, though this was simplified in later models when a special IC was produced to control these functions.

The inclusion of direct drive in a turntable so small was a major engineering feat. The DD motor followed Sony's established BSL (Brushless and SlotLess) principle and retained the printed 'Magnetdisc' encoder to monitor its rotation. Because of their low speed, all turntable DD motors rely to some extent on the mass of the platter to act as a flywheel to smooth their rotation and to damp the action of the servo system.

ILLEGAL ACTIVITIES

This was not possible with the PS-Q7, so instead, the mass of the record became a factor in the motor's control loop. The problem was that the inertial moment of a 7in single is much less than that of a 12in LP, so in the end the motor's torque had to be moderated to ensure stability.

The tiny dimensions of the PS-Q7 precluded the inclusion of a quartz crystal reference. A simpler version of the design, known as the PS-Q3, was also offered. This used belt drive from a small Walkman-type DC brush motor with two stages of reduction and an intermediate high-speed flywheel being required to achieve the correct speed.

The other key difference between the PS-Q3 and the PS-Q7 was that the latter model included a headphone socket with its own volume control. This meant a complete RIAA equalising amplifier was also needed and this was built to tiny dimensions and fitted in the area

RIGHT: That's about the size of it, the PS-Q7 lets it all hang out! Note the headphone socket with its own thumbwheel volume control to the right of the fascia, a novelty on any turntable



underneath where the arm rests. This odd addition was necessary as part of a version sold in Japan as the 'Heli Player'.

The Heli Player included a built-in FM stereo transmitter so the turntable could be used with any FM radio or radio/cassette player with no further connections being necessary. Clever though this was, such things were illegal in the UK during the early 1980s so the transmitter section of the PCB was left unpopulated when it came to export models. However, the headphone socket could be used to feed the line-level input fitted to many radios and cassette machines, this being in addition to the direct output from the cartridge, available via a 3.5mm socket at the rear of the deck.

PLATTER MATTERS

Since it is fully automatic and only has two major controls the PS-Q7 is very easy to operate. A single dial selects the speed (either 33rpm or 45rpm) and the record size (7in or 12in) with all four permutations

LEFT: Sculpted plinth leaves enough room for a 12in LP but conceals the arm while not in use. Record clamp is built into the corner of the lid



'The problem was solved by using an "L-shaped" arm'

available. After that, a single key starts and stops playback, the automatic systems being accurate if a bit slow in operation.

A record can be played with the lid open or shut, a heavy built-in centre clamp running on a ball-race coming into action when the lid is closed. As the 'platter' does

not sit that high above the surrounding cabinetwork, warped records will scrape and exhibit poor speed stability. The problem is only made worse if the lid is closed, since now the record has to pass through a very narrow slot. To

overcome this issue, Sony provided a flock-covered cardboard disc that could be used beneath the record as a shim.

Though the arm has no cueing lever it can be pushed manually to any position above the LP before the lid is closed and the start key is pushed. The arm then drops into position and playback begins. I might add that because the L-shaped arm has an offset pivot point it tends to lower in an arc, moving slightly inwards from the desired position as it falls. One soon learns to compensate for this but the same happens in reverse, so the stylus can make some odd noises as it is dragged out of ➤

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VINTAGE HI-FI

LEFT: Simple shapes and ultra clean lines are the hallmark of '80s Sony design. The turntable hub contains a BSL direct-drive motor, and note the combined speed and record size selector

richer-sounding turntables can smear over; it's a type of presentation that firsts grabs and then retains the attention. The novel arm design works well, although its shortcomings are apparent in both limited bass extension and a rather shallow soundstage as there is little in the way of front-to-back depth.

A bigger disappointment, however, was a lack of smoothness to the presentation, a quality which differentiates a really good turntable from one less accomplished. Vocals, in particular, can take on an edgy quality when played on the PS-Q7, even though the tracking performance of the cartridge appears to be reasonably secure.

BANG ON TARGET

Playing the outermost track of an LP is a tough test for a turntable such as this. With a 7in single it fared much better, there being a more rigid surface under the stylus and less disc area to pick up

room vibrations. Chris de Burgh's 'Don't Pay The Ferryman' [A&M AMS8256] sounded arrestingly dynamic, my listening notes saying 'CD like' which, in my terms, is quite a compliment. This, of course, relates to Sony's own CD players of the same era, in particular the D-50 [HFN Jan '13] which with a good 7in pressing (a rare thing, I know) the PS-Q7 shares its basic tonal character. ➞

'With a decent record it can sound taut and toe-tapping'

the vinyl groove on the upstroke. Luckily a muting relay prevents any 'pops' from reaching the loudspeakers after which the arm is automatically returned to its rest.

There are other quirks too... The supplied MM pick-up requires a standard 47kohm load, but since the internal phono stage/headphone amp is permanently connected, this means the cartridge 'sees' half this load impedance when also hooked-up to an external MM phono stage/amplifier via its rear 3.5mm socket [see p129]. In practice there's seemingly no loss in treble output despite the pick-up being loaded by ~23kohm rather than 47kohm.

Something else contrary to traditional turntable design practice is that the record is only supported at its centre [see PM's Lab Report, p129]. Although unusual, there were some full-sized turntables from the era that supported their LPs on patterns of pegs or pods rather than over the disc's full surface using a felt or rubber mat.

TIM LISTENS

Unlike many direct drives, the PS-Q7 does not spin up to speed instantly. Instead, the motor lumbers into life, its torque more akin to a pirouetting ant than a rotating planet. Nevertheless, once up to speed it gives a subjectively stable sound, provided the record being played has no warps. The

RIGHT: Close-up view of the PS-Q7's cartridge, for which replacement styli are still available. The mounting is similar to that of the standard T4P but the two types are not interchangeable

Sony PS-Q7's sound quality is surprisingly good given its small size. The supplied cartridge is of reasonable quality and this, combined with the accuracy of the motor, shows this miniature is not just a novelty.

Playing the title track of Judie Tzuke's *Welcome To The Cruise* [Rocket Record Company PRICE 76] revealed a sound that although a little bright, was spacious and brisk. The instrumentation retained its immediacy, which some



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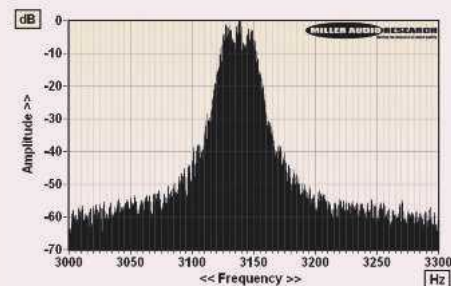
VINTAGE HI-FI

LAB REPORT

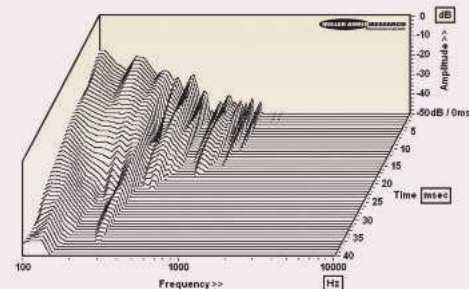
SONY PS-Q7 (Vintage)

Judging by the results of my lab tests, the convenience achieved by Sony's small form-factor 78mm 'platter' and offset, semi-auto arm mechanism comes at a cost. Rumble, for example, is high at -63dB (DIN-B wtd, re 1kHz/5cm/sec) directly from the servo-controlled 'linear torque' BSL motor/bearing and is higher still at -62dB (DIN-B wtd, silent groove) via an unsupported, spinning LP disc. Absolute speed was some -0.4% slow in our 30-year-old sample but it's the levels of wow and flutter that would be more debilitating, subjectively [see Graph 1, below]. The combined, peak-wtd figure of 0.45% is about 10x higher than anticipated from an 'audiophile' deck of today.

The fitted tonearm is more complex than it looks as the pivot point is offset by an L-shaped linkage to the main, square-section alloy tube. The resonant behaviour of this structure is necessarily complex with a main mode at 110Hz followed by twisting and possible harmonics at 170Hz and 270Hz [see Graph 2, below]. The sequence of higher frequency modes will be related to the cartridge mounting, arm 'bearing' and auto-lift/lower mechanism, but despite their number these are relatively low in amplitude. Also, while the tube is a mere 150mm in length, the effective length is closer to 165mm and the effective mass very low at ~6g. As described by Tim [p124] the downforce is preset at 2g although, with Sony erring on the side of caution, in practice this was about 10% higher at 2.17g. This, the high MM compliance and 0.6mm spherical stylus profile combine to yield an adequate tracking limit of ~70µm via the left/right channels and just letting go at the penultimate +15dB groove modulation (re. 315Hz/5cm/sec) at ~1% THD. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted ± 150 Hz, 5Hz per minor division)



ABOVE: Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning 100Hz-10kHz over 40msec

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.21rpm (-0.38%)
Time to audible stabilisation	7sec
Peak Wow/Flutter	0.20% / 0.25%
Rumble (silent groove, DIN B wtd)	-61.8dB
Rumble (through bearing, DIN B wtd)	-62.9dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-42.5dB
Power Consumption	5W
Dimensions (WHD) / Weight	215x58x235mm / 2.5kg



ABOVE: A 3.5mm jack socket provides a direct output from the cartridge [bottom left] while the two holes nearby allow for fine tuning the automatic arm positioning

With a decent (flat) record the PS-Q7 can sound taut, dry and toe-tapping, but it's an impression that soon fades if the vinyl being played is in any way sub-par. The PS-Q7 comes nowhere near to rivalling the considerably costlier Technics SL-10 in terms of sheer overall sound quality, but I suspect that was never the intention in the first place.

As an attractive device to bridge the gap between the end of the LP era and the beginning of the CD one, the PS-Q7 would have been bang on target though. Its looks would enchant any guest and it sounds more than capable enough not to disgrace itself even in critical company. The dedicated audiophile may find it wanting, but pride of ownership remains high.

BUYING SECONDHAND

The PS-Q7 and the PS-Q3 were big sellers and many remain in circulation. Replacement styli (type ND-143G) are easy to obtain but the

special cartridges are not, so ensure one is included when buying. The most common fault encountered is the inability of the deck to complete the automatic stop/start cycle, usually accompanied by a buzzing of the arm motor from inside.

This is almost always due to wear in the tiny belt that links the motor to the mechanism, but replacement is not a straightforward task. Much of the machine has to be dismantled

to access it, and this includes desoldering the fine wires from the tonearm – not a task for the beginner.

The height of the platter above the plinth is critical. Adjustment is made

by adding or removing shims on the turntable shaft, with a compromise setting usually the best that can be arrived at. The fault-finding method for the BSL motor is much the same as it is for any Sony turntable of this era, but issues with the Magnedisc painted layer becoming detached are not as great with the PS-Q7 as they are with the larger models. ☹

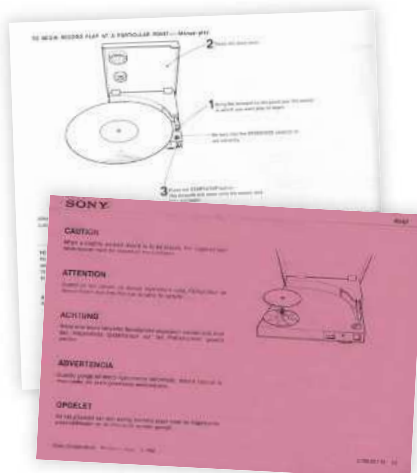
HI-FI NEWS VERDICT

Probably the smallest hi-fi turntable ever made, the PS-Q7 defines the minimum volume of machinery required to play a record properly. While bettered by models just a little larger, it is still a fascinating object and a design classic. The built-in headphone amp means there are many uses for this remarkable piece of kit, although wherever you put it you will still need to find space to put your records...

Sound Quality: 65%



'It bridges the gap between the eras of LP and CD'



ABOVE: In the case of a warped record, insert the supplied cardboard shim disc...

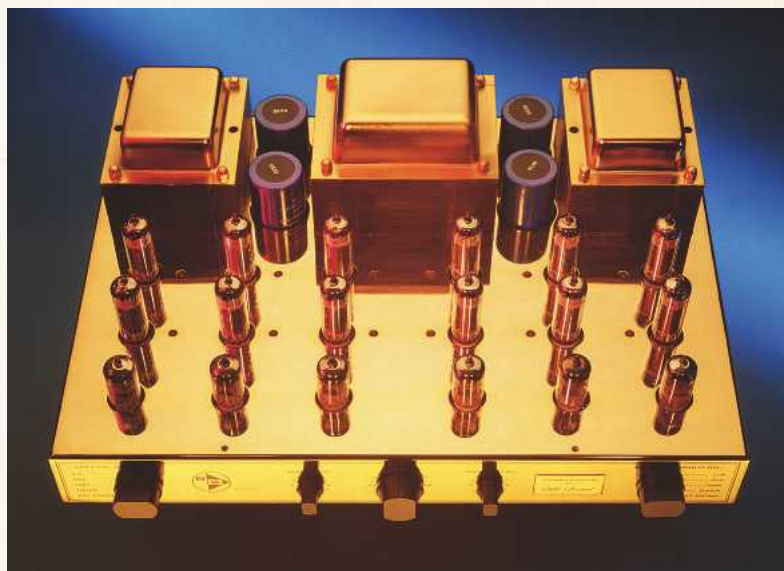
A fine line: the BB100

Ken Kessler on Bill Beard's new line-level-only integrated valve amplifier

Manufacturers should not be criticised for responding to changing tastes. CD has forever changed the face of hi-fi, so all you're doing when you mourn the passage of the phono stage is increase the value of shares in sackcloth and ashes. Instead, be thankful that the companies in the high-end are intent on making the best line-stage amplifiers they can design. What you use for a phono section can be either your existing, pre-CD preamp or an outboard phono section. With this in mind, Bill Beard has launched an all-valve, line-level-only integrated amplifier, the first product to bear his new company's name.

SOLDIERING ON

Bill left Beard Audio (which will continue under new ownership with the existing range) to form British Built Audiophile Products. Although the new units will differ



ABOVE: On its launch, the BB100 amp from Glasgow-based BBAP cost £1000

in many ways from the designs he produced over the past 12 years, all will continue in the tradition established by such classics as the P100 amplifier. The amplifiers produced by British Built Audiophile Products (BBAP for short) promise to offer superb sound and build quality at sensible prices. If the BB100 is indicative of what may follow, we might at last see a full range of real-world, UK-made tube electronics.

The BB100 is a hefty, single-chassis item designed to bring out the hi-fi casualty in all of us. With or without the protective cage in place, the BB100 shouts 'valves!' because you can see all 18 glowing away. This conservatively-rated 2x 50-watter derives its power from three parallel 'push-pull' pairs of EL84s per channel, presenting a very low (2.6kohm) output impedance to the output transformer for easier driving conditions.

The valves are lined up like soldiers behind a complement of four ECC81s and two ECC82s in the preamp section. Each channel in the preamp employs one ECC81 in the driver stage, another '81 as a phase splitter and the '82 as a cathode follower. The heaters for every valve in the BB100 are fully DC regulated.

To prevent paranoia among those of you who think that valves

are a recipe for ensuring your local repairman's fiscal health, the BB100 has been designed to make valve amp ownership a set-and-forget exercise. The valves are common, inexpensive and durable while an LED glows when the bottle ages, by measuring the amount of current drawn by each valve. A brightly-glowing LED means that you remove the valve and fit a replacement. The BB100 operates with a mix of grid and cathode biasing to preclude the need for bias adjustments.

DUAL MONO

On a personal note, I find all the fear of adjusting bias to be excessive and unnecessary. If I can do it, anyone can. On the other hand, it's been explained to me by more than one manufacturer that no matter how clear the instructions, someone is bound to set the bias incorrectly and destroy the odd tube.

The only reason I mention this, since most would willingly trade the inconvenience of manual adjust for automatic biasing, is the trade-off between cathode and grid bias. With cathode biasing you get sweet 'old valve' sound and automatic biasing, whereas grid bias produced

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a tight, crisp bass, more appealing to modern ears while requiring manual adjustment. BBAP has employed a hybrid of the two which works beautifully, so I suppose that in reality there's little sonic justification left for grid-only biasing.

The BB100 is pretty much dual-mono throughout, with the only shared aspects of the design being the single-piece, double-wound mains transformer and a master gain control. The latter, however, is a double-track knob, so the 'mono-ing' is mechanical rather than electronic.

With the cage removed and the BB100 viewed with the controls facing you, the back third of the amp's top surface contains the mains transformer flanked by the separate output transformers. These are wound and constructed to 1% tolerance and are described as a '35% ultra-linear tap design', understressed to need less feedback.

DESIGNER GOODIES

The output section also employs 1300µF reservoir capacitors for each channel. The driver stage is a high current design with its own dedicated regulated DC power supply hosting 4700µF per channel.

Despite its sensible pricing, the BB100 is brimming with designer goodies, of which 80% are purpose-made to BBAP specifications. All capacitors are either polypropylene types or low ESR electrolytics, mounted on a double-sided PCB employing 2oz copper tracks.

For easier servicing of the amp, the main tracks and components are positioned on one side of the board. Meanwhile, internal wiring consists of computer data transmission cable, a solid core type made from silver-plated copper, with separate star earthing for each channel.

At the back of the amplifier are high-quality gold-plated input sockets for CD, tape in and out, tuner, 'aux' and 'external phono', two fuse holders, the on-off switch and Michell binding posts which accept just about any connector you'd care to employ short of a two-pin DIN speaker plug! Crowded it may be, but the front panel reaffirms the design's minimalism.

The first thing I learned is that most sane individuals will have a hard time finding any speakers (of the sort likely to be paired with a

£995 integrated amplifier) which this animal can't drive. Indeed, I'm so sure about the BB100's ability to drive all manner of systems that I'm looking forward to the arrival of the Apogee Stage 'budget' model as a potential torture test.

SOUND QUALITY

If ever there's been a case of a power rating not indicating an amplifier's true prowess, it's the 50W/ch accredited to the Beard BB100. Still more impressive for many will be its clear, unmuddied, taut lower registers – probably the best I've heard from any modern valve amplifier at this price

point. The extension proved far greater than the capabilities of most of the loudspeakers I employed for listening, hence the need to enlist the JBL S119 speaker system.

Despite being unfamiliar with this 'omni', I was able to explore its 8in woofer and metre-tall cabinet to find out what the BB100 amplifier would do with test tones, synth-generated bass and organ notes.

All that the BB100 lacks in this area to threaten the big (solid-state or valve) muthas which command far higher prices is the kind of unbridled slam and absolute dynamics that you'd expect to roll out of a Kilowatt's worth of Krell into something like a Duntech Sovereign.

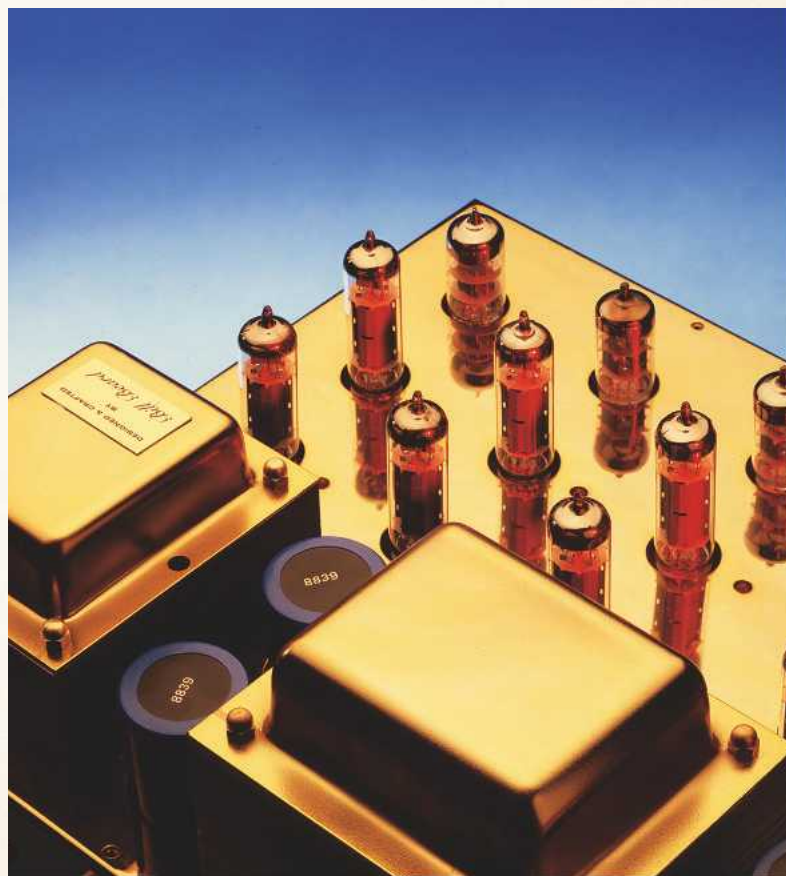
With unnaturally bass-heavy, or more precisely 'bass-predominant' recordings, the BB100 reaches its limits in style, behaving in a similar way to the Wilson WATTs by acting like a filter rather than falling apart. Instead of sounding squashed or compressed the BB100 simply stops, gracefully and euphonically. This

behaviour is consistent throughout, and becomes especially beneficial when you reach the uppermost frequencies. Amusingly, it's here that the Beard BB100 sounds most like an all-tube design, because the highs it delivers positively shimmer.

Many modern valve amplifiers seem to be conceived to ape the sound of solid-state electronics, for the simple reason that an entire ➔

'How off-the-shelf valves run so quietly I don't know'

RIGHT: The single chassis, dual-mono BB100 sports no fewer than 18 valves. These include four ECC81s and two ECC82s in the preamp section comprising one ECC81 in the driver stage, another ECC81 as a phase splitter and the ECC82 as a cathode follower



FROM THE VAULT

generation grew up on the latter and would find tube gear 'dull' or 'soft' rather than 'romantic' or 'sweet'. It may just be a matter of rhetoric or conditioning, but it's something which must be addressed, so I can understand the approach. But the BB100 is unashamedly a tube amplifier where it counts, where tube characteristics are strengths rather than weaknesses. And the results, should this amplifier find its way into enough shops, could convert a number of people who think that valves are plumbing fixtures.

EASY SALE

How Beard managed to get 18 off-the-shelf valves to run so quietly I don't know, but the silences are enough to confuse any who believe that all valve amps are noisy. This in itself makes the rite of passage painless for anyone born after 1958, and sales staff will not have to resort to apologies while explaining the pros and cons of valve ownership. Talk about an easy sale: all that the BB100 requires of its owners is an understanding of the need for ventilation, and anyone who's used solid-staters from Krell knows where not to stack.

The midband of the BB100 is not a transitional point, a crossover from firm bass to shimmering highs. These characteristics are not as clearly delineated as mere verbal descriptions imply. The midband, which is as precise and clear as is required to produce accurate images, realistic positioning and ambience and smear-free transparency, never approaches a level of hygiene which suggests the clinical or the over-etched. In this respect the amp is almost as 'tube-y' as certain classics of yore, but there's no added warmth to upset the overall accuracy.

Rather than showing concern for modernists in their initial approaches to valve gear, perhaps I should worry more about traditionalists who dread the thought of valve amps which are indistinguishable from

solid-state. They should know, then, that the midband of the BB100 is one of the happiest compromises, more modern than, say, an Air-Tight design, but unlikely to be mistaken for anything from Salisbury.

THINK BIG

Where the BB100 most belies its price and best illustrates its valve heritage is in conveying air and openness. It's a big-sounding amplifier, one which pushes back the walls and pretends that your room can balloon at will. This is one of those all-too-rare products that makes you want to listen to your music more and more because it's just so convincing in so many ways.

I'm tempted to go mental over valve beauty, everything from its performance to its price to the sheer pride of ownership it will confer upon BBAP customers. But I'm also aware that I've yet to try it with what might be natural partners, such as the

Celestion 3000 loudspeakers, the Apogee Stage, the Quad '63, the Martin-Logan Sequel and a number of Maggies. Then there's the fact that the company's own outboard phono stage won't be launched until this issue hits the newsstands.

Could this really be me talking, trying to be cool, calm and collected while witnessing what might prove be the birth of affordable high-end equipment? Caution? Restraint? Nope... I just don't know how to describe the comic book image of a mind being blown. ☺

'I'm tempted to go mental over this valve beauty'



BELOW: Original pages from the Feb '90 issue of *HFN* which saw Ken Kessler assess the BB100 amplifier from valve specialist Bill Beard's new company, British Built Audiophile Systems



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LAST WORD

OFF THE LEASH!

KEN KESSLER TELLS IT LIKE IT IS...

Ken Kessler pays tribute to a design guru and recalls landmark products and a personal friendship

Mentors made me. An odd observation, perhaps, but I have always admired, respected and, yes, even exploited my betters. The list is long, from my university professor C F Terrell, Recordland's owner Ruthie Baker, to Apogee's Jason Bloom, Stan Kelly, and too many others to list. Everything I know about writing, music and hi-fi I owe to them. What they have in common is that they're no longer with us. To that list I must now add someone who has affected every one of you, even if you might not know it.

STARRY CLIENT LIST

The passing of Tim de Paravicini last December cannot go unremarked in a journal that has covered his works for nearly 50 years. And this is my personal recollection and a précis of an audio giant's track record.

It is likely that you are an owner or former owner of one of his designs, or simply an LP which was mastered using equipment manufactured or improved by Tim. In his 75 years, Tim designed, modified or consulted on a greater number of products than most would manage in two complete lifetimes.

There's a story to be told just about his work on the studio side, having serviced analogue tape decks for Abbey Road, and his modifying of ATR and Studer tape machines to yield signal-to-noise ratios that 'approach digital', while possessing a claimed

bandwidth greater than 8Hz-80kHz. As a by-product of his studio work, Tim supplied hardware to rock royalty: among his musician clients were Paul McCartney, Ringo Starr, George Harrison, Lenny Kravitz, David Gilmour and numerous others.

More relevant here, though, and regarding his mark in domestic audio, Tim's first achievement came with his move to Japan, to work with Luxman. In 1972, he was employing valves at a time when the technology had yet to reach the eventual full-scale revival. From that era are pieces now regarded as classics, including the MB-3045 monoblock tube amplifier and the solid-state M-6000, a 2x300W transistor power amplifier which is regarded as one of the earliest of that type to come from Japan.

Tim contributed to many other Luxman designs, including the legendary C-1000 preamp, and various FM tuners. However, he truly made his impact on British audiophiles with breakthrough designs once he was back in the UK.

I am not going to fill this page with a litany of manufacturers who benefited from his expertise, but these models were realised by his own company, EAR-Yoshino (originally Esoteric Audio Research, a name changed for obvious reasons), early Musical Fidelity units, and the more-recent Quad valve ranges. I have no idea how many Musical Fidelity A1s were

sold, but the number is huge. Prior to the appearance of that milestone among entry-level integrated amps, Musical Fidelity's Antony Michaelson's previous brand had broken new ground in the late '70s with Michaelson & Austin. That company gave us Tim's TVA-1 and TVA-10 designs, enough to re-establish valve amps in the UK – again, well before the craze took hold.

DEVOTED FOLLOWING

Tim's own products, especially the EAR 509 power amps, inspired a devoted following. That model from 1979 is still in production, and is regarded as one of the finest 100W monoblocks ever produced.

But it's not just hardware that exploited Tim's abilities: his expertise in the recording arts created another sphere of influence. Working backward, his role in the development on One-Step pressing technology, used by Mobile Fidelity, Impex and others, will reach more audiophiles than even his hardware successes.

Certain to have touched myriad music lovers was the Grammy-award-winning album, 1993's *Meeting By The River*, with Ry Cooder and V M Bhatt. Waterlily Acoustics recorded it with a Tim-improved, all-tube Studer C37. Currently, Mobile Fidelity Sound Lab's cutting heads used to make their LPs are driven by EAR tube amps. And I was not surprised, upon visiting mastering maestro Bob Ludwig, that one of his tape decks uses Tim's electronics. This means that you hear EAR gear when you listen to Ludwig's mastering of albums by Jimi Hendrix, Led Zeppelin, The Rolling Stones, Eric Clapton and countless others.

But I will cherish memories of Tim the man: taking apart my Revox G36 and prodding it with a screwdriver on the floor of my listening room while it was plugged in; dinners with Tim and his devoted wife Oliva at the Tokyo show; explaining in simple terms why such-and-such a valve did this, or why a specific cartridge did that. And never letting me forget one critical line in a review of mine – 30 years after it appeared.

Above all, I owe Tim big time for reviving my interest in open-reel tape, now gone beyond an obsession. Blame him if you must. For me, it's eternal gratitude. ☺

'He made his impact with breakthrough designs'

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