

# hi-fi news

& Record Review

**Exclusive**

## DIGITAL DIVAS

**Goldmund's Prana – a wireless invasion!**

**Yamaha's 5000**  
21st century retro  
pre/power amplifiers

### INVESTIGATION

**The gig economy**  
How bands keep physical  
in today's virtual world

**Copland CSA100**  
Tube/transistor hybrid

**Floating on air**  
Holbo's pneumatic turntable

**22**  
PAGES  
of Music  
Reviews &  
Features



**NAD M33**  
BluOS streaming 'Purifi' amp



• **OPINION** 12 pages of letters & commentary • **VINYL RE-RELEASE** The Stones' *It's Only Rock 'N' Roll*  
• **FROM THE VAULT** Marantz's PM-4 Class A amp • **VINTAGE REVIEW** B&O Beogram 1800 turntable  
• **HI-FI@HOME** We revisit *HFN* readers' systems • **READERS' CLASSIFIEDS** Hi-Fi bargains galore

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08

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*Hi-Fi News, September 2019*

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# SME

# CONTENTS

AUGUST 20

## VINYL & RECORD REVIEWS

- 72 Classical Companion**  
Christopher Breunig considers Mozart's *Last Three Symphonies* while suggesting key recordings
- 74 Vinyl Release**  
Old, but still gold? Steve Sutherland listens again to The Rolling Stones' 1974 album *It's Only Rock 'N' Roll*, recently reissued on 180g vinyl
- 76 Vinyl Icon**  
He was a fresh-faced adult yet fearless in addressing society's ills. Mike Barnes looks at the recording of Stevie Wonder's *Innervisions*
- 82 Meet The Producers**  
Sinatra, Streisand, Paul Simon... Steve Sutherland on the work of Phil Ramone, the self-effacing producer dubbed the Pope Of Pop
- 86 Music Reviews**  
Our selection of audiophile LP and hi-res downloads reviewed by our specialists alongside the latest rock, jazz and classical albums

## DEFINITIVE PRODUCT REVIEWS

- 34 Goldmund Mimesis 15/ Prana**  
It's not afraid to break the rules, but can this big-ticket baby active speaker appeal to audiophile ears?



**ABOVE:** Very new to the UK, System Audio's Legend 40 speakers are put on test, p54



- 40 Yamaha C-5000/M-5000**  
Japanese company adds a pre and power amp to its flagship 5000 series, derived from its A-S3000 integrated. And it's analogue all the way...
- 46 Holbo Airbearing**  
Could this stripped-down air-bearing deck with linear-tracking arm redefine the market when it comes to sound quality and ease of use at the price?
- 50 NAD M33**  
Amp, DAC, hi-res streamer and with cutting-edge Class D power modules on-board too... Could this be all the system you could ever want?
- 54 System Audio Legend 40**  
We take delivery of a Scandinavian speaker that stands ready for a unique passive/active/wireless upgrade path
- 58 Copland CSA100**  
Torn between tubes and the kick of solid-state? We hear a valve hybrid integrated amp to sate both tastes
- 62 T+A HA 200**  
It comes at a price, but this dedicated headphone amp claims to be king of the hill on sound. We listen...
- 66 Monitor Audio Bronze 100**  
As company's acclaimed Bronze series hits its sixth generation we take stock of this two-way standmount model

## VINTAGE

- 114 Vintage Review**  
How do yesterday's classics shape up today? We test B&O's Beogram 1800 turntable, the 'super deck' designed with the Beolab 5000 system in mind
- 120 From The Vault**  
It's *HFN* May '85 and Ken Kessler is explaining why a discontinued Class A amplifier was way ahead of the game. Time to meet the Marantz PM-4

## NEWS AND OPINION

- 15 Welcome**  
A message from the editor
- 16 News**  
ELAC expands Concentro series, new floorstander from Franco Serblin, Audia Flight's FLS 9 integrated amp, two 'Signature' speakers from B&W, Auralic updates streaming solutions
- 18 Hi-Fi @ Home revisited**  
We talk to a reader whose system first appeared in our pages back in 2010 to find out what changes he's made to it over the past ten years
- 26 Investigation**  
As live concerts and merchandise become main sources of revenue for musicians, Johnny Black checks out the wilder ways bands are cashing in
- 96 Opinion**  
Comment and analysis on the hot audio topics of the day from Barry Fox, Barry Willis, Andrew Everard, Jim Lesurf and Christopher Breunig
- 106 Sound Off**  
Choosing a hi-res network player, single-ended Class A valve amps versus push-pull, thoughts on hi-fi test tracks, BBC funding considered
- 130 Off The Leash**  
Unplayed discs, thousands of them, literally... Ken Kessler dives deep into his decades-old music collection but which single from 1967 comes top?



**ABOVE:** We catch up with readers whose systems once appeared in our *Hi-Fi @ Home* feature. Where are they now? See p18

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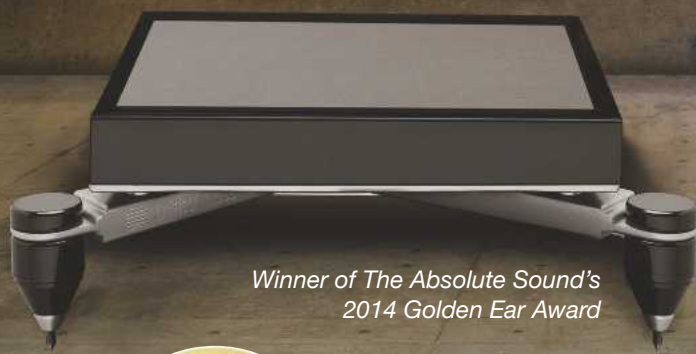
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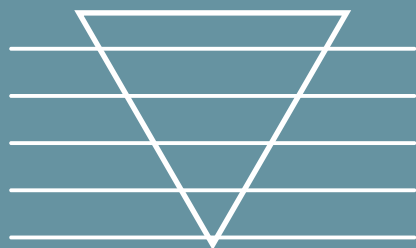


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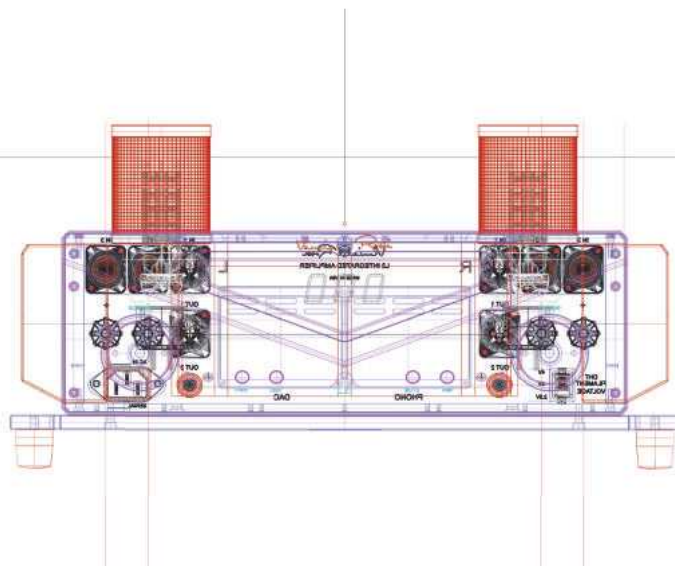
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# 33 Revelations Per Minute

# MoFi

## ULTRAPHONO

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The MoFi UltraPhono redefines what you get for £500, even if you don't factor in what is a mighty fine headphone section. The cartridge matching facility ensures that audiophiles-on-a-budget needn't go without, while the sound quality banishes any thoughts of compromise.... ”

HiFi News, March 2020



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## STUDIODECK+

“

For (a) painless introduction to proper vinyl playback, this is a no-brainer.

HiFi News, January 2020

”

## ULTRADECK+M

“

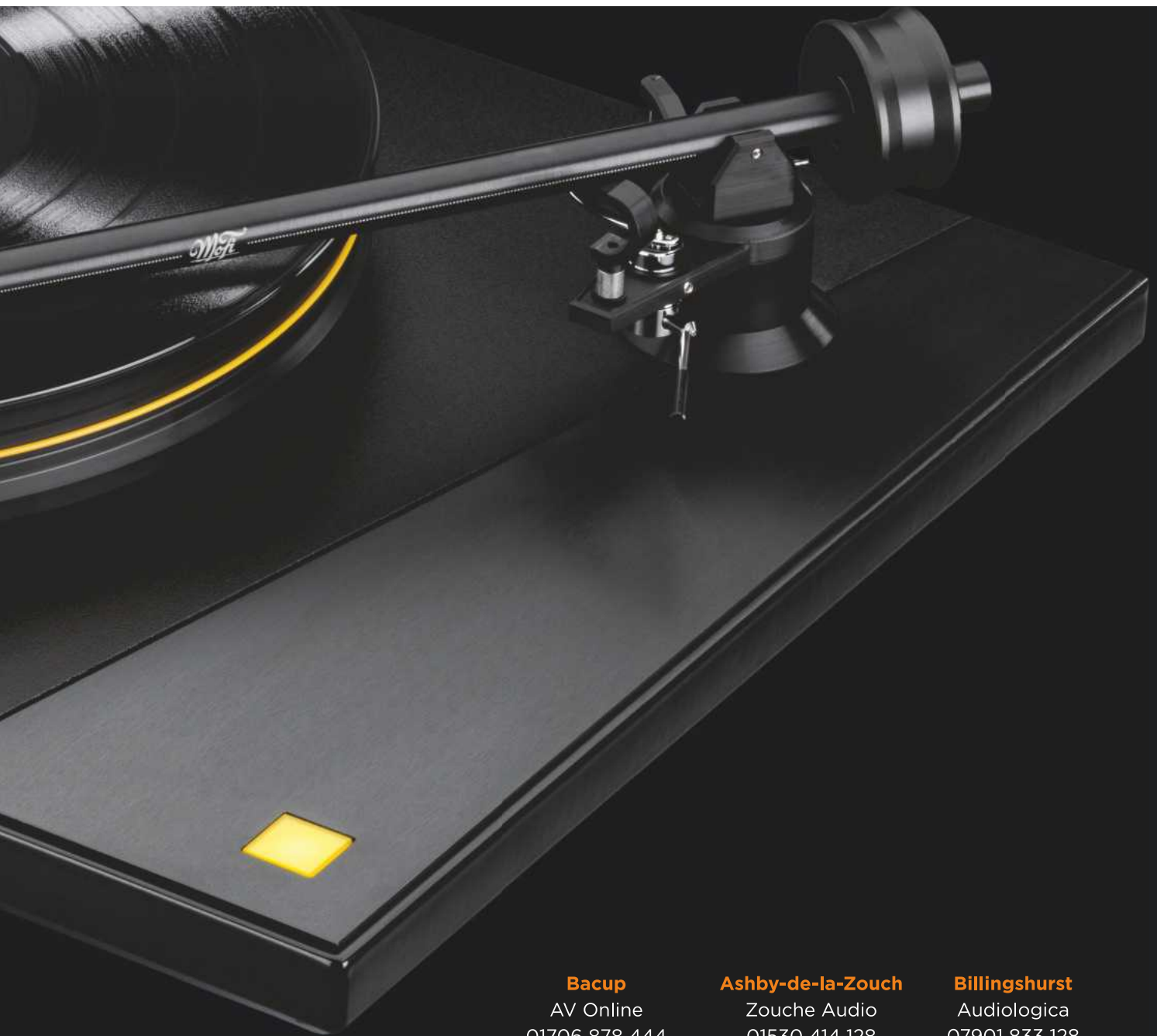
Here the UltraDeck+M again belied its price/heft category, like a boxer knocking out a contender in the next weight class....it's a dream choice for those who want components that can evolve along with them. ”

HiFi News, July 2019

*MoFi*





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**ABOVE:** Hot on the heels of T+A's Solitaire P headphones, here's the partnering DAC/amp. Read our exclusive review of the HA 200 on p62

**RIGHT:** Back to the future with Yamaha as its retro-styled 5000 series pre/power turns on the style. Our in-depth review is on p40



**MUSIC:** From 1973, Steve Wonder's 16th and pivotal album, *Innervisions*, is our Vinyl Icon (p76) while, from just a year later, the Stones' *It's Only Rock 'N' Roll* is now re-released on 180g LP (p74)

**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



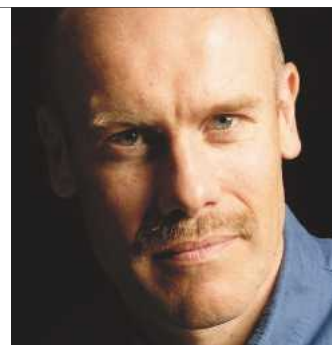
**M**anhandling very heavyweight audio gear is part-and-parcel of everyday life at *Hi-Fi News*, and over the years we've developed processes to get the most unwieldy loudspeakers and amplifiers in, unboxed, photographed and lab tested before we set up for the all-important listening.

It would certainly be easier if we adopted the 'hands on' and very cursory review approach where a big speaker makes it onto the cover, and subject to pages of prose, having only been heard for 30 minutes at a press launch. But that's not us, and we think you deserve better.

Looking back, the most demanding set-ups have included Focal's 265kg Grand Utopia EM Evo floorstanders [*HFN* Dec '18] at over 2m tall and, more recently, the similarly weighty Relentless monoblocks from D'Agostino [*HFN* Mar '20].

We've continued to test the most exotic audio components to the same standards right through lockdown, without breaking any rules... Nevertheless I know our readers have been denied that direct experience, with the UK's hi-fi dealer network being forced to close its doors.

Many specialist retailers have done a great job supporting customers with online deliveries, but when the kit starts tipping



over 50kg or so, and typically requiring expert installation, there is no substitute for the knowledge and manpower of your local hi-fi emporium.

So, as we go to press with yet another issue packed with cutting-edge exclusives – from Goldmund's wireless Prana speakers [p34], NAD's M33

## 'Hi-fi retailers are now eagerly dusting off the welcome mat'

streaming amplifier [p50], T+A's HA 200 headphone amp [p62] and Copland's CSA100 hybrid tube integrated [p58] – I'm delighted to learn that so many 'non-essential' hi-fi retailers are now eagerly dusting off the welcome mat.

Most are making a real effort to offer a safe and compelling 'customer experience', so get out and hear some new gear as soon as you can. For a full list of dealers in your area, go to the *Hi-Fi News* homepage.

**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



**DAVID PRICE**  
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



# B&W 700 Signature

B&W'S 705 AND 702 ARE GIVEN 'SIGNATURE STATUS'

B&W has revamped two of its 700 series loudspeakers – which first debuted in 2017 – as 'Signature' editions. The new 702 Signature floorstander and 705 Signature standmount (priced at £4500 and £2700 per pair, respectively) feature upgrades to both crossover network and finish and 'represent the apex of current Bowers & Wilkins design, engineering and manufacturing processes'. New Mundorf bypass capacitors, enlarged heatsinks, and an upgraded capacitor on the bass arm of the three-way 702 contribute to an improved performance, says the brand, with a boost to 'resolution, openness and spatial retrieval'.

Marking them out from their regular 700 series stablemates are new trim rings around the Continuum midrange and Aerofoil profile bass drivers, silver-coloured grilles for the top-mounted carbon dome tweeters, and a custom Datuk Gloss ebony veneer finish sourced from Italian wood specialist Alpi. Further Signature details include rear panel identity plates, plus grain patterns that are unique to each model.

**B&W Group Ltd, 0800 232 1513;**  
**www.bowers-wilkins.co.uk**

## Audia takes flight

NEW FLS 9 INTEGRATED AMP FROM ITALY



Audia Flight says its new FLS 9 integrated amp continues the Italian marque's 'tradition of speed, power, driving capability and control'. Rated at 2x150W/290W/500W (into 8/4/2ohm), it shares the balanced architecture and upgrade flexibility of the company's FLS 1 preamp and range-topping FLS 10 integrated [HFN Dec '17]. Pricing begins at £5950, with unbalanced RCA and balanced XLR inputs/outputs fitted as standard. Audia Flight also provides two bays for additional modules – current options are for MM/MC phono (£1100), two additional line ins (£500), and a DAC board with asynchronous USB, AES/EBU and S/PDIF inputs (£1850). A DAC/streaming board is also planned. The amp's aluminium chassis (available in black or silver) features an engraved top plate, and it comes supplied with a milled aluminium remote.

**Audia Flight, Italy, 01334 570 666;**  
**www.audia.it; www.eliteaudiouk.com**

## HI-FI NEWS' NUGGETS

### ROOM FOR MORE

Monitor Audio is targeting multizone installations with its new IMS-4 network music streamer. Supporting independent four-zone playback and offering both analogue RCA and digital optical/coaxial preamp outputs, this rack-mountable and MQA-compatible 192kHz/24-bit player is built on the BluOS platform for control and streaming service integration, with Apple AirPlay 2 providing Siri voice interaction. Price is £1300. [www.monitoraudio.com](http://www.monitoraudio.com)

### CAMBRIDGE TUNES IN

Slotting in at the top of Cambridge Audio's affordable AX series, the £500 AXR100D is a DAB+/FM receiver with a claimed output of 2x100W/8ohm. Connections include three analogue stereo inputs, MM phono and S/PDIF digital via coaxial and Toslink optical. There's also a line-level subwoofer output, while Bluetooth 5.0 caters for wireless streaming in lieu of full wired/wireless network functionality. [www.cambridgeaudio.com](http://www.cambridgeaudio.com)

## Auralic evolves

NEXT GEN G2 AND GX STREAMING SOLUTIONS

New from Auralic are updates to its G2 series streamers and Leo GX Master Clock. Billed as the 'next evolution' of its streaming ecosystem, the changes include a double-enclosure chassis to improve EMI shielding; a new vibration-isolating suspension system; enhancement of the Aries streaming transport's USB output to widen compatibility with third-party hardware; and CD playback/ripping functionality on its Lightning OS. The £4200 Aries G2.1, £6000 Vega G2.1 streaming DAC, £8000 Leo GX.1 and £6000 Sirius G2.1 upsampling processor are available now, although – for a limited time – Auralic will allow G2 owners to buy additions to their system with the original hardware aesthetic through its 'G2 by design' service. **Auralic Holdings Ltd (China/USA), 07590 106105; www.auralic.com**



## Bricasti's ladder

### M20 PREAMP WITH DISCRETE RESISTER LADDER VOLUME

Bricasti Design's M20 fully differential dual-mono preamp is now available in the UK through distributor SCV. Featuring a custom-designed discrete ladder attenuator offering  $\pm 1\text{dB}$  steps via a series of digitally-addressed Vishay foil resistors, its US maker claims it delivers 'perfect balance and tonal character at any level'.

Three linear power supplies partner the two analogue channels and separate digital control circuitry. There are also three independently buffered analogue outputs – two balanced on XLRs and

one single-ended on RCAs. Trigger outputs are provided to pair the M20 with Bricasti's power amplifiers or DACs, while Stillpoints isolators work to provide a solid footing.

The standard black version retails for £13,500, with pricing for the Platinum Series model [pictured] to be confirmed. The M20 joins SCV's Bricasti Design stable, which includes the M25 dual-mono power amp and M21 DSD/PCM DAC.

**Bricasti Design Ltd, USA,**  
**03301 222500;**  
**www.bricasti.com;**  
**www.scvdistribution.co.uk**



## Every which way...

### ELAC'S CONCENTRO S 509 IS A TWO-WAY, FOUR-WAY...

ELAC has added a fourth speaker to its Concentro series. The Concentro S 509 adopts the same trapezoidal cabinet, wraparound baffle and 'high heel' bottom assembly of the smaller S 507 model, but uses 180mm (rather than 130mm) Aluminium Sandwich (AS) bass drivers working into a larger 1.32m-high, reflex-loaded enclosure.

A four-way floorstander with a 4ohm nominal impedance and claimed generous 88dB sensitivity, the S 509 features ELAC's 'stepX-JET' coaxial tweeter/midrange assembly,

which places a JET 5c AMT (Air Motion Transformer) tweeter within a 130mm aluminium cone. Exchangeable 'Directivity Control Rings' let users tailor the stepX-JET's directional characteristics to suit their listening environment. A front-facing 180mm midbass and four side-firing woofers complete the driver array. Pricing depends on finish, with gloss white/black lacquer (€16k per pair) and walnut veneer (€17k per pair) options.

**ELAC Electroacoustic GmbH, Germany,**  
**01359 270280;**  
**www.elac.com**



## Franco floorstander

### ICONIC LUTE-INSPIRED SERBLIN ACCORDO ESSENCE LAUNCHED

Since legendary loudspeaker designer (and Sonus faber founder) Franco Serblin passed away in 2013, his son-in-law Massimiliano Favella has continued the eponymous brand that Serblin established 40 years ago. Its newest model is the Accordo Essence (£13k per pair), a floorstanding upgrade on the original Accordo standmount [HFN Jan '18]. This features the same Ragnar Lian-designed 29mm silk dome tweeter and 150mm 'microsphere' cone midrange unit, now joined by a 180mm microsphere bass driver with aluminium dustcap.

Twin rear ports deliver a rated low frequency extension of 35Hz, while sensitivity is claimed at 88dB. Employing Serblin's 'phase coherent' crossover design for 'precise soundstaging, focus and depth of image', the mirror image speakers (30kg each) are made from hand-crafted, arch-shaped solid walnut cabinets, and fitted with aluminium outriggers.

**Franco Serblin Studio, Italy,**  
**0208 971 3909;**  
**www.franco-serblin.it;**  
**www.absolutesounds.com**



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## HI-FI @ HOME – WHERE ARE THEY NOW?



**ABOVE:** With the B&O system taking pride of place in his loft extension, Mark's other vintage items and Veritas horn speakers are on 'static display' for the moment



# Hi-Fi @ Home revisited

Steve Harris talks to a reader whose system we featured back in 2010. Before we find out what changes he's made, here's how things were...

**BELOW:** B&O enthusiast, completist and *Hi-Fi News* reader Mark, pictured in 2010



Think of one-make high-end hi-fi systems, and Naim, Linn and Meridian might be the first to come to mind. Today we associate Bang & Olufsen mainly with lifestyle AV, but the Danish company put together its landmark 'professional' audio system long before any of those British brands even had one product out. It was called the Beolab 5000 system, and, in 1967, was state-of-the-art.

What's more amazing, though, is how good it sounds today, as we

discovered by visiting Mark. He's the happy owner of what is probably the only complete, fully-restored Beolab 5000 system in the UK.

### CLASSIC PERIOD

Back in 2004, Mark was using a tube-based set-up with a Thorens TD124 deck, Cary single-ended triodes and Veritas horn speakers. But he'd just acquired what would become the first piece of the solid-state B&O system. This was a fully-restored Beomaster 5000 tuner.

'In about late 2003 I was doing a search on the Internet and I found Frede Kristensen of Denmark [[www.classic-audio.dk](http://www.classic-audio.dk)]. I was amazed to find that he had set up a business called Classic Audio to focus on the supply and restoration of B&O kit from the "classic period", the 1960s and 1970s, and especially the original Beolab 5000 system.

'And I thought it would be nice to get hold of a Beomaster 5000 tuner. I made contact with Frede, and placed my order. In February 2004,



a crate turned up at my office. It was like a tea-chest and really solid. I got it home, opened it, and there it was: a full electronic and cosmetic restoration of the tuner, with all documentation. I slotted it into the system and it was really great!

'But when I got into further correspondence with Frede, I thought "I've just got to have the amplifier to go with this". I'd read about these rather esoteric B&O components as a kid. B&O had always tended to stand out for me, not just because of the quality, but it was also very interesting equipment. So in April 2005 I visited Frede in Denmark, at a place called Struer.

'Frede scours Scandinavia, in fact all of Europe really, for items which he can use, specifically the Beolab 5000 series, and prepares systems to order. Basically, he gets everything in, assesses it in terms of condition and what needs doing to it and restores it. He's very tenacious about the whole thing!'

## SLIDE SHOW

'I think when Frede worked for B&O as a young man, from around 1970, he was also fascinated by this kit, because it really was at that time easily the most esoteric and expensive system that B&O had produced. In his B&O career, Frede worked in purchasing and travelled the world for them. He spent a lot of time grading parts and selecting parts from different manufacturers.

'Relatively speaking, B&O can't have sold many of these top-end systems in the UK. They'd only gone fully international in 1964. The groundbreaking product for them was the Beomaster 900 transistor receiver. Because they'd come from tubes, they could make full use of the design opportunities that transistors afforded, in terms of slimmer design, more acceptable user interfaces, more flexibility, not so much heat to worry about.'

But it was the Beolab 5000 amplifier and Beomaster 5000 tuner, designed by Jacob Jensen, which first introduced the 'slide rule' control interface that would be a big feature of B&O products for many years to come. Matching speakers were the Beovox 5000, assisted by the Beovox 2500 omnidirectional tweeter units, and the record deck was the Beogram 3000.

**RIGHT:** B&O's omni-directional Beovox 2500 Cube multi-tweeter satellite speakers sit atop the Beovox 5000 loudspeakers. The Cube could also be mounted on the walls or the ceiling



**ABOVE:** Mark's late 1960s Beogram 3000 turntable combines a Thorens TD124 MkII motor unit with B&O's own tonearm and cartridge, designed by Erik Rørbæk Madsen

'The design of the system started in 1966 and it went to market really quickly, appearing in April 1967.'

## RARE DECK

'In Continental Europe, however, the Beogram 3000 was a partnership between Thorens and B&O. The deck made use of the chassis from Thorens' TD124 MkII but with a B&O arm and cartridge designed by the company's Erik Rørbæk Madsen. But there was an anomaly in the UK. Because of existing trade agreements, the Beogram 3000 sold here was different, as it used a motor unit from a company in Holland called Acoustical, though still with the B&O arm and plinth. That turntable is very rare now.

'The Beovox 2500, usually known as the Cube, was designed to be used with the Beovox 5000 speakers, which in its earlier versions didn't use dome tweeters. You've got a solid piece of hardwood standing on its end with tweeters

pointing in different directions. But although you've always got a connection at the back of the Beovox 5000 for the Cube, it became less important as the

Beovox 5000 itself developed and moved on to dome tweeters.

'After another visit to Frede, in April 2005, which had been a wonderful experience, I said to him "Right, I need to place an order for the amplifier". So in June 2006, ☺

"I fitted the amplifier into my wheely flight case"

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**DYNAUDIO**



I visited him again and picked it up. That was before we had the current restrictions on bringing things through customs. I managed to fit the amplifier into my Samsonite wheely flight case, put my clothes on top and took it as hand luggage!

'For I while, I used the Beolab amplifier with the Veritas horns. It was rated at 60W, which of course was more than enough. I lived with this strange hybrid sort of system that I had created... until we decided to build a loft extension.'

## NO COMPROMISE

Now Mark had a dedicated listening room. 'So I found myself up in the loft. And I realised what was possible. In late 2006 I ordered the remainder of the system from Frede. By that I mean the Beogram 3000, the Beocord 1800 stereo reel-to-reel tape recorder, the Beovox 5000 speakers and, of course, the Cubes.'

'Even though it's a small room, it's amazing what you can do. Sometimes these things do tend to be a compromise, but I think I've just got away with it, despite shoe-horning the system in. And it's nice to be up here as the sun goes down, watching flocks of birds go by and the night sky coming on.'

'It's like anything you saw when you were younger, like being a kid with your nose pressed against the window of the toyshop, thinking "One day! I'd love to have that Hornby trainset..." Or maybe when you are bit older, and it's a Triumph GT6! And then when you reach the time of life when you can actually afford it, that thing is no longer current.'

A fascinating aspect of Mark's system is the inclusion of the beautifully-made Beocord 1800 open-reel machine. 'Well, it's a completist approach if you like. The Beocord 2000 series, which the 1800 is based on, reached its zenith in 1969 or 1970. The 1800 is very highly specified for what is a home machine, and the designation



"It's like a kid thinking 'I'd love to have that trainset'"

was "semi-professional". Most importantly, it uses quality Bogen heads. And the Beomic ribbon microphones were perfect partners.'

You won't be surprised to learn that Mark also has a beautiful Beomic BM5 mic complete with its velvet-lined wooden box. 'My intention is to record from FM whenever I can. Recording direct from vinyl, the quality is superb too. It's not saturated at all, the full range is

there, it's a very low-noise playback. At the higher speed, 7½ips, you get a really nice quality.'

## DIGITAL TOO

Naturally, the system will handle modern digital sources too, with Mark's Sony SCD-555ES CD/SACD player connected. 'I found a company called Flashback Sales [[www.flashbacksales.co.uk](http://www.flashbacksales.co.uk)], which makes cables and DIN connections, not just for B&O but for Naim, Quad and what-have-you. I've



**ABOVE:** Still cherished are a Leak Stereo 20 amp, Thorens TD124 turntable, EAR 834P phono stage and Audio Synthesis passive preamp, Leak and Scott tube tuners. Mark's Sony SCD-555ES CD/SACD player sits middle shelf

**ABOVE LEFT:** The Beocord 1800 open-reel tape recorder was designed for 'semi-pro' use

**BELOW:** Beolab 5000 amp (top) and Beomaster 5000 tuner – the first models to feature 'slide-rule' controls

gone back to using a lot of the DIN connections, which also means you don't have as many cables going into the back of your kit. It's neater, and it certainly helps with the Beolab 5000, as you've got this big heatsink which goes the full length of the back, and the connections are underneath that, so they are really quite difficult to get to if you want to swap things around. Flashback uses DIN connectors made by the German company that originated them, Preh, so they fit properly.'

## WARM LOVE

'I'm biased because I'm a lover of this equipment, but it all really is now a pleasure to use. Maybe this is stating the obvious, but in terms of sensitivities and outputs these components were designed to work together. And it is a very good presentation. There is an analogue warmth to the sound, but there is precision to it too. The stereo separation is superb. Again and again you think, am I really listening to a 40-year-old hi-fi system?' ↻







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## HI-FI @ HOME – CATCHING UP TEN YEARS LATER...

Back in 2010, Mark had really completed his vintage B&O system. But he didn't stop there. 'Since then, what we've had is an evolution,' he says. 'The bench is in the same place, but the equipment has changed in terms of the layout. I've relocated the Beolab system that was on the bench before and made a light oak shelf in the corner under the apex of the roof to take the tuner and amp.'

Also nestled in this corner is the little Beomaster 1000 receiver that Mark acquired in 2011. Launched in 1965, this design predates the flagship Beolab 5000 system.

'They continued making the Beomaster 1000 until the early '70s, so it was a model with some longevity. The early ones had germanium transistors, but they moved on to silicon. It's a very slim, small unit with piano keys on top.'

### LINEAR-TRACKER

'Some models for Scandinavia were different in appearance, because they came in light oak. We're used to seeing them in teak or rosewood in this country. Frede restored a light oak version for me. This kind of follows through a little bit to what I've done with the other pieces that I've got since.'

'What I also now have on the bench has been kind of inspired by Tim Jarman's articles in *HFN*. He'd written about the Beolab and so on, but wrote about the Beomaster 4400 receiver [*HFN* Jun '12] too.'

**RIGHT:** Mark's revised set-up includes two turntables – the Beogram 3000 (left), now with 12in arm, and a Beogram 4000 (right), this being connected to the Beomaster 4400 receiver which sits between the two decks

**BELOW RIGHT:** Relocated, with a Beomaster 1000 receiver alongside, are the 5000 series amp and tuner. The small accessory box (left) provides headphone output and stereo width control

**BELOW:** B&O's original linear-tracker, the Beogram 4000. Paired with the Beomaster 4400 receiver, this gives Mark a classic 1970s combination



'B&O only made this for about two years and it was the last iteration of that lineage. That whole design concept started with the Beolab 5000 system and went through a ten-year evolution to the Beomaster 4400, which came out in 1977, with the slanted front.'

'Then Tim did a Vintage Review on the Beogram 4000 [*HFN* Jun '14], the original linear-tracker, and I've now got one connected to the Beomaster 4400. This is a historically possible set-up, even though the 4000 predates the 4400.'

### CENTRE SPEAKER

Still feeding the disc input of the 5000 amp is Mark's Beogram 3000 turntable, only it now carries the rare 12in version of the B&O arm.

'I've done some mods which would have been possible back in the day, though not stock. If you were friendly with your B&O dealer you would have been able, probably, to get a separate armboard made for the longer B&O ST/P pro arm.'

'Frede restored this arm. It's been re-wired, has new bearings and is using an SP1 pick-up re-tipped with a Shibata diamond. The suspension was replaced by Axel in Germany.'

'Also now connected to the Beolab 5000 system is a B&O CDX [*HFN* Nov '17]. Another bit of inspiration from Mr Jarman following a Vintage Review! This is an '80s CD player, and I found an immaculate example, still in its original box.'

'And I've now got the Beocord 1800 tucked under the bench. It's on special feet so that I can slide it out when I want to use it. That's connected to the Beomaster 4400.'

Now, with a simple change of cables, Mark can switch between classic 1960s B&O equipment to classic 1970s, both set-ups feeding the Beovox 5000 speakers.

'Though I've now got a centre speaker as well, which is a Beovox 3000, and that's connected to the Beolab system. Because it was a three-channel system, even in 1967! Who'd have thunk it?' ☺





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**ABOVE:** Wild Willy Barrett (left) with John Otway and (inset) flyer for their 'DK 50/80 Tent Tour' which saw the pair play a series of gigs in towns across the UK that had chart return shops

# The new gig economy

As more groups turn to touring to generate revenue, **Johnny Black** casts an eye over the more innovative ways some bands are winning over fans

It used to be so simple. Back in the day, music artists recorded albums and then went out on expensive tours, often making a loss, in order to promote and sell considerable quantities of their LPs. The big money then was in the vinyl, and that vinyl was largely under the control of a handful of major international music corporations, such as EMI, CBS, Warner Bros, Polygram and their ilk.

That situation was turned on its head somewhere around the start of the new millennium with the arrival of such innovations as the Internet, digital files, computerised home studios and social media. Suddenly, by combining these new technologies, seemingly unlimited quantities of music could be downloaded, with the result that the balance of power started moving from the global music giants, not just to you and me but to the artists themselves.

Songwriters could create high quality recordings at home and make them available globally via the Internet, spreading their name and their music across the world. The catch was that this artist-controlled model of musical creation and distribution, didn't create revenue for the artist, because once the music was online the audience could find ways to download it for free.

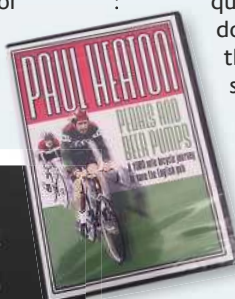
Somehow, artists had to find a way to make money that didn't rely on selling the music itself. This was true for the megastars as much as for the bedroom boffins. The answer was to earn cash from a musical experience which could not be duplicated or downloaded and, happily, it already existed. It was called touring.

## BOX OFFICE BONANZA

Nothing matches the experience of actually being present at a gig where an artist performs music live, where you can feel the music hit your chest, dance like a dervish among others who love the same music as you and soak up the atmosphere that cannot be replicated by a digital file.

Superstar artists were in the fortunate position of having huge existing audiences who would come to their live shows, so the trick was to release new music knowing that while it would not generate as much lolly as it previously did, it would

**RIGHT:** Paul Heaton who in 2010 swapped his band van for a road bike in order to cycle 1000 miles to play the 16 gigs that made up his Pedals And Pumps tour (inset)





make the public aware of the artist's accompanying tour.

Thus, the vast global network of arenas and stadiums, that had grown up over the past 30 years or so, became planet-wide shopfronts for the megastars' merchandise – clothing, posters, mugs and anything else with the artist's name on it. Better yet, to enjoy the privilege of buying all this peripheral tat, the fan had to pay an exorbitant fee for a ticket to the show.

Despite standard tickets for Oasis's 1996 appearance at Knebworth costing a then giddy £22.50, over 2.5m people applied, smashing box-office records. Yes, the high price of the tickets drew some fire from the band's fans, but it was a signal of things to come.

## FLYING START

Meanwhile, artists lower down the ladder began to discover that the new hierarchy had also created opportunities for them. On May the 3rd, 2006, eccentric rocker John Otway announced an ambitious plan to charter an Airbus A340-400, which could seat over 250 passengers, and use it for a world tour taking in Carnegie Hall, Sydney Opera House and elsewhere. Could this really be possible for a cult artist whose only real commercial success

**ABOVE:** The folk quintet Skinny Lister during their ten-day tour by narrowboat. They recorded songs along the way for an EP they sold at their final gig in London

**BELOW:** Demand for tickets to see Oasis play at Knebworth in 1996 was so great they could have sold out a further 18 shows

was the hit single 'Really Free' that reached No 27 in the chart in 1977?

'The idea was that fans could pay to travel with me on the Airbus, which would cover the costs of the tour,' he explains. What Otway had realised was that, although his fanbase was relatively small, it was devoted. If he could convince about 180 of them to stump up £3900 each, they would get a world tour with live music at every stop, plus accommodation. Amazingly, it almost worked. 'We had 150 fans signed up but, to make the tour break even we needed another 30

fans, which we never got, so the tour got cancelled.'

But Otway is nothing if not supremely optimistic. Way back in 1980, he and his musical partner Wild Willy Barrett had undertaken what he called 'The Tent tour'. He tells me, 'We only played gigs in towns that had chart return shops. To cut the costs of touring we stayed in tents on local camp sites. We announced that fans could come to the gigs for free but only if they brought a copy of our new single, 'DK 50/80', with them, to the venue. Of course, the idea behind this was that purchases of the single in the Chart Return shops, would generate enough sales to put the single onto the next week's chart.'

## 'Arenas were now shopfronts for megastars' merchandise'

## UNLUCKY STRIKE

Although unscrupulous, it was an ingeniously mad plan.

'It worked insofar as it got the single to No 45 in July 1980 and the next step would be to appear on *Top Of The Pops*, thereby selling even more singles. Disastrously, the Musicians Union went on strike ☹





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that week so our appearance on *Top Of The Pops* was cancelled.'

Undaunted, Otway devised yet another madcap scheme in 2016, to record an album on the Caribbean island of Montserrat where The Beatles' producer Sir George Martin had set up a studio.

'We invited fans to join us on Montserrat and if they did, they would be allowed to sing on the album. Fifty fans turned up, and the Prime Minister met us at the airport, because we were the first band to record on Montserrat since The Rolling Stones did *Steel Wheels* in 1989. They also held a reception for us in Government House.'

Next year Otway will celebrate his 5000th gig by playing at Shepherd's



**ABOVE:** Singer Bessie Smith pictured in 1936

**BELOW:** Tom McRae (top left), Catherine Feeny (top right), and The Travelling Band (bottom)

Bush Empire in London on April the 3rd, 2021. Not bad for a cult rocker.

## SADDLE BARS

Not everybody, however, has the single-minded determination of an Otway, but several other artists have come up

with imaginative ways to tour in the new rock hierarchy. Songwriter Paul Heaton, who enjoyed a string of memorable hits with his band The Beautiful South, has twice undertaken tours by bicycle.

The first was Pedals And Pumps in 2010, a 1000-mile excursion starting on May the 5th at The Flying Horse, a pub in Rochdale, and

ending 16 gigs later at The Southern in Chorlton. The venture was inspired by his dismay at noticing that a pub he'd often cycled to near Macclesfield had closed. 'I thought it'd be great to do a tour of Cheshire to save the pubs. Then I thought, 'Why not extend it?''

He repeated the idea in 2012, to celebrate his 50th birthday, this time pedalling 2500 miles over 40 days, from the King's Arms in Salford via Scotland, Wales, Ireland and The Isle Of Wight, to London. Asked how he enjoyed the experience, Heaton responded, 'A good day is when you have the wind behind you'.

Inevitably, this kind of outing isn't going to generate huge piles of cash, and is a hard physical slog, ➔

## POP IN THE PARLOUR

For longer than anyone can remember, musicians who could not always fill concert halls have supplemented whatever other income they were able to earn by playing what are now known as 'house gigs'.

Indeed, classical musicians including Mozart are known to have sometimes performed in intimate, domestic environments, and folk musicians have long played and sung their songs in the homes of their fans.

## JAZZ BUFFET

In the world of early jazz and blues, artists of the stature of Bessie Smith played in what were known as 'buffet flats' in Detroit, New York, Chicago and elsewhere. On January the 24th 1911, *The Chicago Tribune* reported that 'from 22nd Street south in Michigan Avenue, Wabash Avenue, State Street, and the cross streets as far south as 31st Street is a rich district of the so-called buffet flats. There, too, can be found hundreds of handbooks, gaming houses, and all-night saloons of the most vicious character'.

By 1927, at the height of Prohibition, an article in *The Port Arthur News* titled 'Buffet Flat Solves Many of High Society's Drinking Problems' estimated that New York City had some 10,000 buffet flats in Manhattan and Brooklyn.

The shift in perspectives that has become increasingly prevalent among performing musicians since the start of the new millennium has seen an upsurge in the number of shows being performed in the homes of fans all over the world. These are the nearest modern equivalent to the buffet flats, although usually rather more salubrious, and the music being performed is largely acoustic folksy singer-songwriter fare.

These are, inevitably, low-key enterprises but, as a means of establishing a career for young performers,



they can be a valuable strategy. These events are becoming so popular that a number of small businesses have been established – eg, House Concerts York and Maidstone Housegigs – to cater for artists keen to pursue this route.

## HOUSE MUSIC

Now in its tenth year, House Concerts York has hosted over 350 artists, including English singer Tom McRae, US singer-songwriter Catherine Feeny, and The Travelling Band. Rolo McGinty, a founder of The Woodentops, is another artist to have performed at the venue. 'The performance at House Concerts York in December 2009 opened new doors for me,' he said. 'I had never thought to play live music without The Woodentops, but since that night I have done so many times.

Even a residency in Tokyo.'

The approach has become so well established that Sheffield band The Gentlemen conducted several UK tours between 2008 and 2012, all of which took place in the homes of their fans.

Of course, house gigs are far from a guarantee of future superstardom but, in the changed environment of the post-millennial music industry, they have become a realistic option for anyone hoping to increase their fanbase.



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but what it does do is give an artist's name a much higher media profile than yet another simple trundle around the standard gig circuit. It's then up to the artist to turn that profile into further opportunities.

One band which did precisely that is Skinny Lister. On August the 21st, 2010, the London-based folk quintet set off on a ten-day tour by narrowboat, journeying along the Grand Union Canal from Linslade, Bedfordshire, to Camden Lock, London, and back again.

The band's co-founder Dan Heptinstall recalls it for me, saying, 'We sing folk songs and sea shanties, so the narrowboat idea suited our style. Wherever we moored for the night, we would go into the nearest pub and tell them we'd play a show if they'd feed us for the night'.

Vocalist Lorna Thomas adds, 'We converted the boat into a little studio with a laptop and a couple of good mics and recorded a bunch of songs which we were able to get pressed up as a limited edition EP called *Grand Union*, in time for the final show at Camden Lock'.

Heptinstall takes up the tale again, saying, 'We weren't playing to lots of people in the pubs, but it was an interesting angle for the media. Channel 4, for example, made a documentary about us'.

## LOCK 'N' ROLL

Although the tour itself made them precisely zero money, the band used their increased profile to secure so many paying gigs that in 2011, they were officially crowned 'Hardest Working Band in the UK' by the Performing Rights Society. They then went on to tour the US, playing the 2012 Vans Warped Tour, SXSW, the Coachella Festival, and other events, not to mention securing recording deals with the SideOneDummy label in Los Angeles, Uncle Owen Records in Japan and the independent Sunday Best Records in the UK.

As with any ventures of this sort, the band readily admits that their narrowboat tour was physically demanding but, according to Lorna, 'the hardest work was getting through all the canal lock gates'.

No-one in his right mind would suggest that touring by bicycle, narrowboat or even rented Airbus is a recipe for vast financial reward but, with a little imagination, it

is clearly possible for working musicians to get a foot on the ladder to success and establish a platform from which they might be able to move onwards and upwards.

'When monkeys rule the Earth, all the arenas will be deserted or

**BELOW: The Beatles' rooftop concert in 1969 (top), Jefferson Airplane (middle), and Metallica pictured in 2016**

burned down, but the pubs will still be open,' pointed out Paul Heaton. 'I can't remember any of the big shows I did with The Beautiful South, but I remember every single one of the pub gigs, even the names of the landlords and landladies.' ☺

## LOCATION, LOCATION....

If playing concerts in front rooms isn't weird enough for you, consider the fact that some fearless artists have performed in locations that most sane human beings wouldn't even consider.

The Drifters sang of the delights of being 'Up On The Roof' in 1964, but Jefferson Airplane went one step further in December 1968 by actually performing on the roof of the nine-storey Schuyler Hotel in midtown Manhattan.

The Beatles then popularised the concept with their own rooftop concert atop their Savile Row HQ in London on January the 30th, 1969. Since then, everybody and his dog, including U2 and Tom Petty, has resorted to this strategy, with Madness trumping the lot by playing atop Buckingham Palace in 2012.

Back in September 1978 The Grateful Dead rocked out in front of the Great Pyramid of Giza in Egypt, but then Jean-Michel Jarre outdid them by performing live to 120,000 people in the same location on New Year's Eve, 1999.

There was, presumably, no problem with sweltering Egyptian heat when in December 2013 Metallica made history by being the first band to play under a Perspex dome at Carlini in Antarctica.

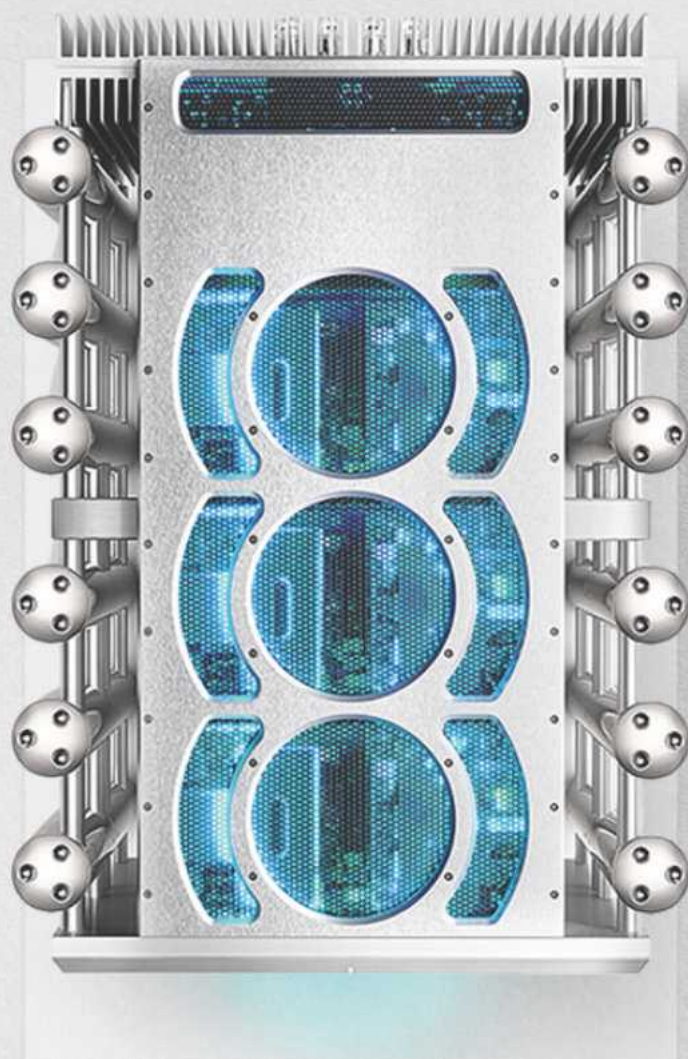
Jamiroquai played live aboard a Boeing 757 at 33,000 feet, achieving a new world record in 2007, which stood until 2010, when James Blunt played at 42,000 feet. One wonders how long before The Police re-form for a one-off concert performing 'Walking On The Moon' on the Moon – where else?







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- Hi-Fi News, June, 2020



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# Goldmund Mimesis 15/Prana

There certainly aren't many speakers that look like them, but these baby models – yes, really – in the Swiss brand's wireless active range combine style with all-alloy substance  
Review: **Andrew Everard & Paul Miller** Lab: **Paul Miller**

**W**hen the entry-level model in a speaker range costs £70,000 a pair, and weighs no less than 80kg – that's each speaker – you'd rightly assume you're in very serious high-end territory. And yes, imposing though the Prana speaker looks, its two aluminium enclosures mounted on a hefty 'Z-frame' and the whole enterprise standing some 99cm tall, this is the *baby* of this particular range. Above it sit the Satya speakers, 1.23m tall, 140kg apiece and £110,000 a pair, while the flagship is the 1.47m tall, 180kg-a-pop Samadhi, yours for a nice neat £200k a pair...

All three speakers clearly have much of the DNA of Goldmund's 1987 Apologue reference speaker, designed by Italian artist Claudio Rotta Loria on the same 'multiple enclosures on a Z-frame' principle – it's just that the Apologue used five enclosures and was a passive design, before the Anniversary edition 35 years later became active and wireless. While the Apologue name derived from Greek for the truth, the current lineup instead draws on Sanskrit, Prana meaning 'the universal sea of energy that infuses and vitalises all matter', Satya 'truth' and Samadhi 'the climax of all spiritual and intellectual activity'.

## CHUNK OF CHANGE

All three speakers are the product of Goldmund's in-house modelling software, previewed in a paper at the 2007 AES Convention in Austria. The firm's engineers proposed a DSP-based solution to tackle the phase and group delay distortions associated with the port, drivers and crossover used in a two-way, reflex-loaded loudspeaker. Maintaining a flat amplitude response was also key to the project.

Using Matlab software, Goldmund's custom IIR (Infinite Impulse Response) filter corrected the crossover phase and group delay distortions but only proved stable if the input signal was first divided into

chunks and 'reversed' in time using a LIFO (Last in/First Out) buffer. After processing, the data chunks were switched back into correct time and reassembled. Dubbed the 'Leonardo Project', this computer modelling was extended to include almost every aspect of loudspeaker design, including cabinet diffraction effects, and was first implemented in the Epilogue range and for the Metis speaker and sub.

## THEORY TO PRACTICE

'The comparisons between measurements and calculations were so good', reported Goldmund's Head of Acoustics, Dr Véronique Adam, 'that we decided to give up the necessity of any measurements for the

loudspeaker systems developed after this validation' [see PM's Lab Report, p39].

The latest Leonardo 2 version of this time alignment correction

algorithm, with digital crossovers, gains and delays, is incorporated in the active Prana speakers we have here.

And that's where we enter the world of Goldmund speaker design – yes, the same Goldmund responsible for the celebrated Reference turntable of 1983 [see Interview boxout, p37]. But in this new, computer-modelled world the Pranas, as well as looking as they do, also seem to break a lot of rules along the way. For example, whereas just about

every other speaker on the market employs some kind of shaping to its cabinet to control diffraction, dispersion and internal reflections, the Prana boasts two resolutely rectangular alloy boxes.

*'The Pranas, looking as they do, break all the rules'*

**RIGHT:** The upper alloy enclosure houses a 140mm midrange and 25mm soft dome tweeter powered by 2x175W Telos amplifiers while the lower cabinet hosts a 180mm woofer with a 250W Telos amp





## HIGH-END WIRELESS

In addition to their coaxial S/PDIF digital input, located alongside the mains socket on the rear of the 'Z-frame' at floor level, the Prana speakers offer a range of wireless connection options, using a proprietary 96kHz-capable link developed by Goldmund in association with TI. This operates on the same 2.4GHz band as home Wi-Fi networks, but is a dedicated link. At its simplest, one can use a 48kHz/16-bit USB dongle plugged into a computer and paired with the speakers using a pinhole button on the rear panel of each speaker's upper enclosure. The Pranas arrive preconfigured to the dongle with which they're supplied, and a yellow 'locking' LED confirms the connection. The computer's sound settings will then control the volume.



Alternatively one can use the £2500 wireless transmitter box [pictured] – this has one coaxial S/PDIF digital input and a stub antenna for the 96kHz/24-bit wireless link. The £10,500 Mimesis 11 'wireless' preamp-hub is another alternative as this includes built-in wireless transmitters for a one-stop solution. In all cases, the wireless link has a range of 5-20m, depending on the environment in which it's used.

The microbead blasted, anodised finish is truly superb while damping is seemingly provided by the sheer mass of the 13mm-thick slab-aluminium cabinets, with further aluminium bracing within, and the application of an internal layer of a tar material called Idikel, which also adds more mass. There's no clever curving going on here – these are simply very heavy, and very inert enclosures.

### DELIVERY BOX

And while those two enclosures are clamped to its exo-skeleton 'Z-frame' using fixings with oversized knurled knobs, these cannot be loosened and adjusted for tilt. In fact they're fixed in place by two slender columns joining the two boxes at the rear while providing a conduit for signal connections from below. There are also fixed 'Goldmund Mechanical Grounding' poles running from the upper enclosure to the lower, and from the larger enclosure to the floor. So while the frame supports the two boxes, it's this 'fifth foot' that couples them to the floor, not the four spikes on the frame.

Then there's the fact the Pranas also contain DSP, DACs and amplification, with 175W apiece for the soft-dome Scan-Speak tweeter and 140mm midrange in the upper enclosure, and 250W for the 180mm bass unit in the lower one. Both mid and bass units are from the Danish AudioTechnology brand and use polypropylene-sandwich cones. Despite all the electronics, there's no ventilation beyond a 100mm-diameter downward-firing port running almost the full height of the bass cabinet.

All of which means the Pranas really do 'warm up' after they've been switched on for a few hours. But there

is a lot going on in there: the only connection between the speaker and the rest of your system, apart from a mains feed for each, is via either S/PDIF digital or wireless, both methods being able to handle a data-rate of up to 96kHz/24-bit. So you could just feed the Prana speakers wirelessly from a computer, for which purpose Goldmund has a simple plug-in USB dongle [see boxout, above]. But to use the speakers with more complex systems, you're going to need one of Goldmund's processor boxes.

For our review, Goldmund distributor Sonata Hi-Fi also supplied the company's £23,000 Mimesis 15 processor, able to support up to 16 channels of surround sound. The Mimesis 15 has eight S/PDIF digital outputs, configurable as mono or stereo – on the review sample the first two were set up as mono left and right, with another configured for stereo to feed the £2500 wireless transmitter. For much of our listening, and PM's lab testing [p39], we stuck to wired operation using a pair of Goldmund Lineal digital cables, costing £1750 for each 6m run.

The Mimesis 15 processor is simple to use, with no more than a





**ortofon**  
accuracy in sound

## CADENZA

The Cadenza Series of high-end Moving Coil (MC) cartridges allow you to get the most from your vinyl records. By carefully implementing cobalt-iron pole pieces, using new improved winding processes on the armature, and employing an extruded aluminium housing - amongst other changes - the Cadenza Series is able to out-perform all those that came before it.

The name *Cadenza* comes from the Italian word for cadence, which refers to a soloist during an orchestra performance where they play alone in an elaborate manner. It therefore seemed fitting that such a capable and nuanced cartridge series should use the same name.

Like other modern ranges, the Cadenza Series is structured in Ortofon's preferred colour-tier nomenclature; so there are Red, Blue, Bronze, and Black variants available to suit varying budgets and tastes.



### Red

This MC cartridge and introduction to the series features a Nude Fine Line stylus which delivers open, dynamic sound with a touch of warmth.



### Blue

Featuring much greater dynamics and resolution, the sound is more open and reproduces more accurate details thanks to the Nude FG 70 stylus.



### Bronze

A step up in the range, this cartridge boasts a Replicant 100 stylus to produce stereo imaging capabilities that illuminate the farthest corners of the soundstage.



### Black

Flagship of the range, the Cadenza Black is simply the best and features a Nude Shibata stylus which guarantees amazing tonal neutrality, dynamics and purity of sound.





**ABOVE:** The Mimesis 15 processor couldn't be simpler with two rotary encoders covering input selection [left] and digital volume [right]. Volume '99' on the display is equivalent to a -0.9dBfs digital output while the full 65dB range is covered in  $\pm 0.5$ dB and  $\pm 1.0$ dB steps (see Lab Report, p39)

volume control, an input selector and a remote control [p39]. Inputs extend to three analogue line-ins, passing through a 96kHz/24-bit ADC, and four coaxial and two optical digital ins also accommodating files up to 96kHz, and a USB-B for direct connection from a computer (or, in our case, a Melco Digital Music Library).

All good so far, except the USB input is limited to 48kHz, which will be fine for those who only ever play CDs – or CD-quality files. A hard drive full of high-res files will not leave you with the sound of silence, however, because all correctly-engineered USB sources, including the Melco N1ZS20/2 [HFN Jun '17], will 'handshake' with the Prana USB sink and automatically downsample their output from 96kHz, 192kHz, etc, to the 48kHz required. If you're listening off a PC or Mac, you should also be able to force a 48kHz output from your media player of choice.

## BIG PICTURE

From the outset the Mimesis 15/Prana combination proved very listenable indeed, and without a doubt able to convey a broad brush of the music, even if its balance was a little soft and safe-sounding at lower listening levels. Whipping off those substantial box-framed grilles certainly brought back more bite and sparkle and playing a range of music left me in no doubt that these speakers were doing some good things in terms of presenting

the music's big picture. Nevertheless, perhaps they really weren't really delivering masses of detail when it came to vocal and instrumental timbres and textures.

## TIGER TANK

There's good weight in the bass, even at lowish levels (PM noted this meant at around 52 on the Mimesis 15's 'goes to 99' scale) but while there's reasonable midband and treble information, the things I tend to listen for in a good recording – meaning coherent, focused soundstaging

and a sense of space, air and ambience in the presentation – were just a little muted here.

The sound down in the sensible zone is arguably a tad dark and, on occasion, slightly gloomy, even with a highly atmospheric

recording such as Mike Oldfield's *Return To Ommadawn* [Virgin EMI CDV3166] where the, quite literally, multi-layered instrumentation is usually crisply defined and precisely placed in the soundstage.

Via the Goldmund Pranas running at 'polite' levels it's all a bit loose and uninvolved in hi-fi terms, though very listenable without a hint of strain. Increase the volume, however, and the Prana's suggest there's a tiger slumbering in the tank as Oldfield's strings and keyboards start to take flight into the room, with a deal more life and energy. But turn up the juice too far and the tiger is just as likely to reach out and give you a swipe. ➞

'Losing the box-grilles brought back more bite and sparkle'



**ABOVE:** Three stereo analogue line ins are joined by six S/PDIF digital ins (four coaxial/two optical that accept 96kHz LPCM) and one USB-B (rated at 48kHz). Four sets of configurable (stereo or mono) S/PDIF digital outputs feed the left and right Prana speakers, respectively, at 96kHz/24-bit

## VÉRONIQUE ADAM

During our three-month long review process, editor PM shared many a mail with Goldmund's Head of Acoustics, Dr Véronique Adam, and UK distributor Robert Wilson of Sonata Hi-Fi. While our conversations focused on the technology, neither did we overlook Goldmund's long high-end history.

'The brand was founded in France in 1978,' recalled Véronique, 'and its first commercial product was the T3 computer-controlled tonearm followed a year later by the direct-drive Studio turntable with its revolutionary acrylic platter.'

In 1980 the company was solely acquired by Michel Reverchon (who still owns the company, 40 years later) and relocated to Geneva.

'The first "Swiss Made" product was the legendary Reference deck, launched at CES in 1983, its trademark "Mechanical Grounding" becoming a cornerstone of every Goldmund product since. Electronics were added in 1987 with the Mimesis 2/3 pre and power amps, and digital solutions with a CD transport/DAC in 1990 followed by the modular Epilogue speakers.

'Incidentally, there'll soon be an updated DSP-driven flagship speaker to replace the Apologue, featuring a new design aesthetic. Our R&D into active room acoustic correction may also appear as a commercial product under the Goldmund name.'

Finally, and the question that most audiophiles will ask... will there ever be a new Goldmund turntable? Says Véronique, 'the current position is "never, say never"'. ➞





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# Yamaha C-5000/M-5000

Masters of retro chic, Yamaha has evolved its one-time flagship A-S3000 integrated amplifier into a fully-fledged pre/power. And there's not a digital input in sight...

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

**T**alk to audiophiles that grew up through the 1990s and the chances are they associate brands such as Sony, Yamaha, Onkyo, Pioneer and Denon with meaty AV receivers and, possibly, mini systems. The reason is that it was around this time that the major Japanese corporations began directing their energies into developing products for the burgeoning home cinema market, meaning these younger hi-fi enthusiasts never really saw them flex their design muscles in the stereo arena.

However, that is changing. Pioneer, Onkyo and Denon all now offer high quality two-channel equipment once more, while the Technics brand has returned with a vengeance after being mothballed by parent Panasonic. Now Yamaha has thrown its hat into the ring once again with the expansion of its 5000 series, the NS-5000 loudspeakers [*HFN* Jun '17] being joined by the GT-5000 turntable, along with the C-5000 preamplifier and M-5000 power amplifier under test here, both of which retail at £6499 apiece.

## RETRO REBORN

When it comes to cosmetics, the C-5000 and M-5000 continue the traditions rekindled by the A-S2000 amplifier [*HFN* Mar '08]. This means piano-style keys for power and feature selection, solid metal bars for knobs on the input selectors, a chunky volume control and those glorious analogue meters on the power amplifier. These, in turn, hark back to past Yamaha designs, yet somehow the two manage to look stylishly modern at the same time.

Both units sport gloss piano black side cheeks and the colour options for the 6mm-thick top plate and 9mm-thick front panel are silver or black. Of course, retro styling has its own appeal, but technology has moved on. Fortunately, the feature list

and internal design of both the C-5000 and M-5000 are formidable. This is a genuine back-to-basics enterprise [see boxout, p43] that builds on the performance of the earlier range-topping A-S3000 integrated [*HFN* Nov '13] and provides a high-end flagship to sail at the head of Yamaha's very new A-S1200, A-S2200 and A-S3200 integrated amps.

Looking at the C-5000 preamp first, this tips the scales at over 19kg and, at 435x142x451mm (whd), is larger than many an integrated amp. It's analogue-only, so those hoping for DACs or streaming facilities will be disappointed. But this means that the money has gone where it matters – on wringing the very last ounce

of performance from whatever analogue source you care to plug into it.

## SOCKET TO ME

The C-5000 offers connections via unbalanced phono sockets for four line level inputs, one of which has a corresponding output, plus two balanced inputs through XLR sockets. The latter are switchable for absolute phase or to add attenuation, which is said to reduce gain by

6dB while also increasing the maximum input voltage level from 2.8V to 5.6V [see PM's Lab Report, p45]. Meanwhile, two unbalanced and one balanced sets of outputs are offered, and these can be

'This duo's feature list and internal design are formidable'



**RIGHT:** The heavyweight M-5000 is an entirely symmetrical design with dual secondaries on the transformer (bottom) feeding separate L/R PSUs (above) and floating/balanced MOSFET power amps on internal heatsinks (left/right)



**LEFT:** Rotaries with precision ball bearings, big selectors and piano keys – the C-5000 preamp [top] evokes memories of amps from yesteryear, as do the large illuminated power meters that dominate the M-5000. Both are a joy to use but note that the meters tend to over-read the 'real' power output

selected individually from a front panel control or all switched on at once.

Naturally, with a matching turntable available, the MM/MC phono stage fitted to the C-5000 is no afterthought. Both balanced and unbalanced inputs are provided though the circuitry is balanced throughout, and this includes the MC head amplifier section. Cartridge loading is fixed at 47kohm for MM but adjustable between 10, 30, 100 and 300ohm for MC – all from a knob on the front panel. No fiddly DIP switches to be found here, thank goodness!

All the control knobs are positive and deliciously smooth in action, especially

the volume control, which runs on ball bearings. I also love the mute switch – flick this and the volume control physically turns itself down by a predetermined amount. Flick it again, and it spins back up.

### GROUND ZERO

The C-5000 also marks the first use of Yamaha's 'Floating and Balanced' circuit topology in a preamplifier – previously it was employed exclusively in its power amplifiers. This sees the circuitry within the unit electrically balanced throughout, while the 'floating' part means that it is not referenced to ground at any point. The

result should be that any ground noise the preamp encounters will have no effect on the signal that passes through it.

Each channel has its own power transformer and the C-5000 is dual-mono, with the physical circuit layout for each channel a mirror image of the other. Yamaha states that this keeps circuit paths short, but also ensures they are equal at every point on both channels. Meanwhile, the circuit boards for each channel are mounted on top of each other with an aluminium 'stabiliser block' between.

Moving on to the M-5000, this adds a further 7kg to the C-5000's weight and features balanced and unbalanced inputs plus two pairs of superbly chunky 4mm loudspeaker cable terminals. Controls on the rear also cover phase reversal for the balanced inputs, normal or bridged mono output mode

settings and an auto power standby option.

Under the lid of the M-5000, a 1.2kVA power transformer feeds PSUs for the main circuitry which, like that of the preamp, is floating, balanced and mirror-imaged in its physical layout. At the business end, paralleled output MOSFETs are utilised to improve low-impedance load drive ability.

On the front of the amplifier, controls permit input and speaker output selection, plus VU or Peak settings for the meters. This last switch also offers clever meter

## A HI-FI HISTORY

If there's a tendency for some large Japanese companies to lack a sense of corporate charisma or personality, then Yamaha with its audio, musical instruments and sports utilities divisions most certainly bucks the trend. The brand has a long and illustrious history, starting when founder Torakusu Yamaha repaired a broken reed organ back in 1887. He then built his own, and founded his company Nippon Gakki Co. Ltd some ten years later, selling musical instruments. Yamaha was fascinated by Western science, as well as music theory and tuning, this eventually inspiring the three tuning forks that comprise its logo to this day. After over half a century specialising in musical instruments, Yamaha entered the hi-fi market in 1954, closely followed by the launch of the Yamaha Motor Co. Ltd. This was a period of huge growth for the company, and by the early '70s it was also a semiconductor manufacturer. That decade was a period of great innovation for Yamaha's hi-fi division with the launch of the groundbreaking NS-1000 loudspeaker range [HFN Oct '18] and the B-1 V-FET power amp in 1974 [B-2 from '76 pictured]. Forty-five years later, the 'Yamaha aesthetic', and corporate personality, is as clear as ever.





# Heresy

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**good for the soul...**

The Heresy IV offers unparalleled sound quality from a relatively small speaker. Utilizing Tractrix geometry, the all-new Heresy IV ports allow for the most efficient, fastest air transfer in their class, which reduces port noise for punchier low frequencies. In addition to delivering smooth, dynamic and low distortion sound, the Heresy IV is available in a high-quality Natural Cherry, Distressed Oak, American Walnut, or Satin Black Ash wood veneer finish. A slant riser base is included for floor placement that is removeable for cabinet installations.



FINISH  
OPTIONS:







**ABOVE:** The fully balanced, dual-mono preamp features mirror-imaged L/R circuit boards, one atop the other [top]. Separate L/R PSUs are fed from two screened toroidal transformers [lower left/right]

illumination dimming. Hold it against resistance in the 'Dimmer' position and the lamps cycle up and down in brightness. Release the switch when the level you like is obtained and the unit remembers this.

## RATTLE 'N' ROLL

The M-5000 was connected to my PMC Twenty5.24 speakers [HFN May '17] with the C-5000 fed by a Naim CD5XS CD player with FlatCap XS PSU, and a Michell Gyro SE turntable with SME 309 arm. Both Ortofon 2M Black moving-magnetic [HFN Mar '11], and Clearaudio MC Essence [HFN Aug '17] moving-coil cartridges were used with the turntable.

Some components will leap out at you with a grand flourish, only to disappoint once you begin to explore their performance further and more critically. The Yamaha pairing couldn't be more different, slowly drawing you in until you realise that life in your listening room will never be quite the same again.

The first thing to grab is the unerring background silence when these amps are powered up, the result being that their dynamic capabilities seem almost endless once the music flows. What's more, I actually found myself listening a little quieter than usual as everything from a lead vocal to the merest hint of a background effect was easy to discern.

But don't be misled by the seemingly unremarkable 100W-per-channel power rating that Yamaha quotes for the M-5000. The amp has huge power reserves waiting

to be tapped [see PM's Lab Report, p45] and is more than capable of raising the roof, should you wish it to. Having explored these power limits, I can think of few power amps able to remain so utterly composed and effortlessly dynamic while rattling the rafters. Whether it was a rock band in full flight, or the majesty of an orchestra in full flow, the M-5000 thundered forth without breaking a sweat.

At more normal listening levels, it was the clarity offered by the Yamaha pairing that proved particularly gripping, while I have rarely heard vocal plosives sound cleaner. In the second verse of Steely Dan's 'Jack Of Speed' from the CD release of their *Two Against Nature* [Giant 924719-2] I am used to the brief sibilant spit that

occurs on the 't' in the word 'routine', but heard through the C-5000 and M-5000 it was conspicuous by its absence.

## SMOOTH OPERATOR

Equally, gone was the clash of the 'dustbin lids' that punctuates one of my regular treble torture tracks, The Corrs' 'Only When I Sleep' from *Talk On Corners* [Atlantic Recordings 7567-83051-2], the Yamaha duo revealing these to be the sound of cymbals being struck. I actually spent the best part of an evening throwing poor recordings at the C-5000 and M-5000 and didn't manage to catch them out once.

Furthermore, this sense of clarity and detail was not the result of an unnatural boost in treble. The Yamaha pairing is as ➔

'The double-basses were an absolute joy to behold'

## SIMON FEBEN-HARKNETT

Simon Feben-Harknett, Yamaha UK's AV Product Specialist, revealed something of the 5000-series' origins to editor Paul Miller. 'The idea of the C-5000 and M-5000 came from Mr Susumu Kumazawa, Director of the AV Product Planning Group, who wanted to evolve the circuit concepts of our flagship A-S3000 integrated [HFN Nov '13]. He wondered if a pre/power solution might achieve even greater low frequency control. So two A-S3000s were remodelled – one as a preamp and the other as a power amp to verify any performance gains.'

As the project took shape, more engineering specialists came on board. 'Mr Hidehito Aramaki, from Yamaha's AV Business Development Department, was put in charge of the C-5000's design and installed a fully floating/balanced preamp circuit.' This is the 'matched book' concept where mirror-image PCBs for the left and right channels are folded one atop the other [see pic].

'The M-5000 was led by Group Manager Mr Taro Morii who had previously been in charge of the A-S2100 and A-S1100 integrated amplifiers. The new transformer, MOSFET output stage and even the chassis and foot design were derived from his group's engineering and listening tests.'

So where does Yamaha go from here? 'We've just introduced the A-S3200, A-S2200 and A-S1200 integrated amps which all benefit from trickle-down. But we are missing a digital piece to the puzzle – perhaps a streamer – so we must be patient and wait and see...'



# Still setting the Benchmark...



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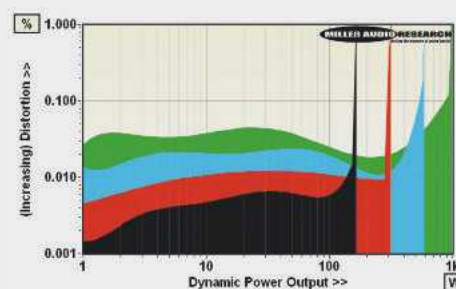


## LAB REPORT

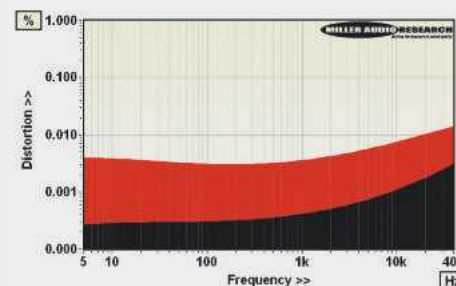
### YAMAHA C-5000/M-5000

Despite its continuous mechanical action the C-5000's volume control is actually stepwise in operation and configured so that both distortion and response are influenced by volume *position* as much as actual *output*. For example, with the volume knob wound fully clockwise, distortion is a very low 0.0003%/1kHz [see black trace, Graph 2] and the response flat to -0.5dB/100kHz but at the 12 o'clock position THD is 0.0019%/1kHz and the HF roll-off increased to -0.3dB/20kHz and -4.1dB/100kHz (all at 1V output). Note also that the subsonic filter is ineffective on the balanced output – this has a -3dB point of 2Hz – while the input overload is just 3.2V in its max. (+20dB) gain setting. Beware balanced line sources with a 'standard' 4V or 6V output...

These minor niggles aside, the C-5000 is very 'clean' and, like almost every Yamaha amp, boasts very low noise and a spectacularly wide S/N ratio of, in this instance, a full 102dB (A-wtd, re. 0dBV). The partnering M-5000 is also incredibly 'quiet' with a huge 99dB A-wtd S/N (re. 0dBV) and distortion increasing gently from 0.001%/1W to 0.003%/10W and 0.005% at the rated 100W/8ohm (all 1kHz). At HF there's a mild (but expected) uptick to 0.01%/20kHz/10W [red trace, Graph 2] while the response is both flat and extended with -1dB limits of 5Hz-100kHz. And power? Plenty of it, despite those big meters over-reading: at 10W/8ohm output the needle is close to '50W' on the scale and at the rated 100W output is bouncing off the dial at the '+3dB' position. In reality it kicks out a full 2x145W/8ohm and 2x256W/4ohm with headroom for 167W, 317W, 590W and 995W into 8, 4, 2 and 1ohm loads under dynamic conditions [see Graph 1, below]. This is one very capable '100-watter'! PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 31.5A



ABOVE: THD versus extended freq. for C-5000 preamp (1V out, black trace) versus M-5000 (10W/8ohm, red)

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	145W / 256W
Dynamic power (<1% THD, 8/4/2/1ohm)	167W / 317W / 590W / 995W
Output imp. (20Hz-20kHz, pre/power)	74-92ohm / 0.0026-0.070ohm
Freq. resp. (20Hz-100kHz, pre/power)	-0.05 to -0.5dB / -0.07 to -1.1dB
Input sensitivity (for 0dBV/0dBW)	98mV (pre) / 199mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	101.5dB (pre) / 99.0dB (power)
Distortion (20Hz-20kHz, 1V/10W)	0.0001-0.002%/0.003-0.012%
Power consumption (Idle/Rated o/p)	73W/362W (48W, Preamp)
Dimensions (WHD, Pre/Power)	435x142x451/435x180x464mm



ABOVE: The preamp [top] offers an MM/MC phono input, six line ins (four on RCAs and two on XLRs), two direct inputs (XLR and RCA) and three sets of main outputs (on RCAs and XLRs). The (bridgeable) power amp [below] has inputs on RCAs and XLRs, and two pairs of loudspeaker outputs on gold-plated 4mm cable binding posts

smooth and beguiling as you could hope for at the top-end – qualities that were evident through the entirety of the frequency range.

The amps were also capable of producing a remarkable sense of depth perspective. Yes, central performers were perhaps not projected as far into the room as would be the case with some rival amps, but each was wholly distinct in his or her own space. And the accuracy with which they were placed in the soundstage could not be criticised at the price.

### JUST FOR KICKS

Switch to the phono input, however, and in particular the MC option, and the C-5000 places the action right in front of the listener, this time with

fine projection. On the track 'C-Side' from Khruangbin's *Texas Sun* EP [Dead Oceans DOC214], Leon Bridges' vocals appeared to be emanating from the centre of the space between my seat and the equipment rack, with Laura Lee's bass positioned directly behind him and the

As beautifully constructed as the C-5000 itself, the partnering RAS33 system remote governs input selection, volume and mute. The tuner and CD/SACD functions are intended for other Yamaha separates

steady percussion coming from just behind the right loudspeaker.

Don't think for a minute, though, that this was some soulless forensic dissection of the music. Rather, the sheer clarity, detail and atmosphere offered up by the Yamaha duo meant that being drawn into the performance as a whole was both easy and utterly captivating.

Bass was another area in which the C-5000 and M-5000 proved effortlessly capable, with all inputs. Kick drums pounded with a sense of physical impact while the warmth and resonance from double-basses was an absolute joy to behold.

Similarly, the deep synthesiser bass line underpinning London Grammar's 'Wasting My Young Years' from their *If You Wait* LP [Metal and Dust MADART1LP] powered from my speakers, across the floor and into my listening seat but without ever swamping Hannah Reid's vocals, which remained soaring, rock solid and, above all, uncannily lifelike. ☺

### HI-FI NEWS VERDICT

Both the C-5000 preamp and M-5000 power amplifier show Japanese engineering ingenuity and construction quality at its very best. Yes, the feature list looks impressive in a brochure, but the technology used has a direct bearing on the ultimate sound quality of both amps here. The result is typically sublime, with Yamaha's longstanding 'Natural Sound' moniker rarely feeling more appropriate.

Sound Quality: 85%



# Holbo Airbearing

An air-bearing turntable and a parallel-tracking, air-bearing tonearm in a single, easy-to-use package for under £7000? Devotees of both will love the Holbo Airbearing Review: **Ken Kessler** Lab: **Paul Miller**

Every product type has its following, however focused. I am sure, for example, that there are devotees of hybrid amps with tube front-ends and solid-state output stages just as, among the niches in LP playback, audiophiles are tempted by air-bearing turntables and parallel-tracking tonearms. Made in Slovenia by Bostjan Holc, the Holbo Airbearing combines those two, and does so for an almost-inexplicable £6500.

Here's my observation of the economics: I have no idea when wages in Slovenia, Slovakia, *et al*, will match those of Germany, but this also works in its favour, as lower manufacturing costs help exports. This is a simple fact, and it's the only way I can figure out how such a technically complex and beautifully made package can be offered for what a US or Western European brand might charge for just the arm or the deck, but not the pair.

Editor PM told me it was a doddle to set up, in contrast to every other device I have ever used which involved air pumps, and he was right. There was, of course, back-up in the form of a superb owner's manual, but this deck is so intuitive that I had to learn only one lesson the hard way: never have I experienced anything so critical about being levelled to perfection. Fortunately, the unit rests on three pointy feet, two of which are adjustable – plus I also ensured my turntable rack was also absolutely level.

## PLINTH CHARMING

Why so critical? You can't set up the arm if it isn't faultlessly horizontal because it will slide away from you when you least need it to do so. That was the only unanticipated event and I actually had this up-and-running in 30 minutes. That included fitting the cartridge, a fiddly process that will demand as much forbearance as setting up a Hadcock, Mayware or Syrnix of yore.

**RIGHT:** Air is forced from the black sleeve, not the stainless barrel of this linear-tracking arm. The Litz wiring, and fine air tube, are also visible along with the counterweight, cueing system and adjustment screw to set the arm length

What first strikes you about the Holbo pairing is its simplicity. In style terms, this is the air-bearing, parallel-tracking equivalent of that turntable of Bauhausian clarity and minimalism, the Rega Planar 2, which – for this scribe – remains the cleanest record deck design ever. The Holbo Airbearing is so uncluttered that even the black-on-black logo on the front right-hand corner of the deck disappears when viewed from certain angles.

Holbo has devised what is simply a slab with a POM/Delrin platter, the tonearm emerging from a cut-out at the back, with a basic on-off rocker in the left-hand corner. Speed change is via a toggle at the back, and cueing is as basic as it gets – an undamped lever behind the arm. It's slightly awkward to get to if the deck is mounted above waist-height, and

you will certainly want full control of its manually-applied descent, so consider this if your equipment rack is especially tall.

## MODEL DECK

Two black boxes [see p49] – provide AC power and air for the bearing and the

tonearm. The unit comes with enough tubing to allow you to put the pump in another room, but it was so quiet that I didn't bother. The hose is connected to a nipple on the air pump and another on the back of the deck,

secured with screw-down collars. The power supply connects through a socket at the back, and – as the deck is supplied without signal leads – the user can fit whatever cables he or she prefers to the Holbo's RCA connectors and earthing tag.

*'A knock-out, especially with low-octave instruments'*





My only complaint at this stage is the lack of a dust cover, which I would assume should be critical for keeping schmutz, dust and air-borne grime off the arm's guiding cylinder. Other than that, this is a model of clear thought and attention to detail, finicky arm set-up apart.

### ARM TWISTING

Having connected the deck to my EAT E-Glo phono stage, I used the cable that was supplied with the recently-reviewed EAT B-Sharp turntable [HFN Jul '20]. As for the cartridges chosen for the listening, these included the EAT Jo N°5 MC [HFN Dec '18], an aged Tsurugi MC and Ortofon's 2M Red MM [HFN Oct '08]. Set-up was undertaken with the supplied gauge, mirror-finished to help with azimuth, while overhang requires lining-up the stylus to intersect with the spindle. Arm height is adjusted at the back, but it's the azimuth and overhang setting that will demand you don't precede installation with a few cups of coffee.

Holbo's arm tube is completely removable from its horizontal mount if the counterweight is not yet fitted, so if you loosen the set-screws to adjust its length it can rotate, rendering the headshell no longer perfectly horizontal to the platter when viewed from the front. Now you see why the gauge has a mirror surface.

I soon figured out that loosening the set screws to allow only slight movement enabled me first to set the overhang, then to twist the tube as necessary to ensure faultless 'verticality' from the front. By this time, you will have learned, too, that the cueing is direct in its action and not damped, so care is needed.

I point this out because, as one who rarely uses a cueing lever, you cannot operate the Holbo arm without the lift/lower device. Such a device is mandatory with a free-floating, parallel-tracking arm because it simply doesn't enable you to lift and then park the arm like a conventional pivoting type. You will soon get used to

**ABOVE:** The platter is lifted some 10µm under pneumatic pressure, while the stainless ring is part of the chassis and bearing. The deck must be precisely levelled via its three feet

lowering this without haste, but I thought you ought to know.

### SOMETHING IN THE AIR

As one spoiled for the better part of a year by the spooky silence of an air-bearing turntable, the primary feel of the Holbo Airbearing was instantly familiar. It is the antithesis of idler-drive, which never appealed to me because the lower registers and the noise floor are never as genuinely deep as with an air-bearing solution. I used my newest LP, with pristine surface, to exploit this, admittedly comparing its silences to those of the TechDAS Air Force III Premium [HFN Jun '19] at seven times the cost.

With BB King and Eric Clapton's *Riding With The King* [Reprise 895206093624], I concentrated on the fluidity of both guitarists' lead breaks, followed by their familiar-yet-contrasting voices. Their epic take on Sam & Dave's 'Hold On I'm Coming' revealed a sonic signature softer than I expected, but it was consistent from cartridge-to-cartridge. As identifying a component's overall 'personality' is the *raison d'être* of any review, I was eager to learn if this defined the sound.

It was smoother than EAT's B-Sharp, but here we have a case of what the listener prefers over what measurements might reveal [see PM's Lab Report, p49]. King's voice has a nasality which was reproduced with all its near-liquidity, while the mild huskiness of Clapton's was spot-on – this unit has a way with vocals. Comparing it to the admittedly dearer TechDAS, any losses were minor, mainly in terms of warmth.

As for guitar, the Holbo deck excelled in treble extension, with lead notes soaring, but transient attack was dependent on the ➔

### PUMP IT UP

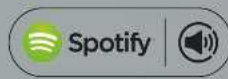
Looking back into hi-fi history it would seem the genesis of the air-bearing turntable began with the Wayne H Coloney municipal engineering company in Tallahassee, Florida. But the story really begins with student, and soon to be audiophile luminary, Bruce Thigpen seeing an air-bearing demonstration in a physics class in 1975. Bruce discovered that presenting engineer Lew Eckhart, then of the Geophysical Fluid Dynamics Institute (GFDI) in the Physics Department at FSU, had already designed a prototype air-bearing turntable and tonearm. Having persuaded Eckhart to help him build his own solution, high-end audio brand Infinity took a license for the design. Sadly only about ten Infinity turntables were made under contract in Japan before the speaker company was bought by Harman in 1983, and its radical turntable was dropped.

Meanwhile, Coloney had started manufacturing its own AB-1 air-bearing turntable with Thigpen as project manager, but got into difficulties in 1982 and sold the inventory to Maplenoll. At this point Thigpen set up his own company, Eminent Technology and was granted a patent for an 'Air bearing straight line tracking phonograph tonearm' in 1985. When he launched his ET1 arm and later, with Edison Price, the ET2 [HFN Jul '86], these became the first widely-known air-bearing arms. Another pioneering US arm of the 1980s was the now-obscure Dennesen, closely followed by the now-iconic Airtangent from Sweden. PM



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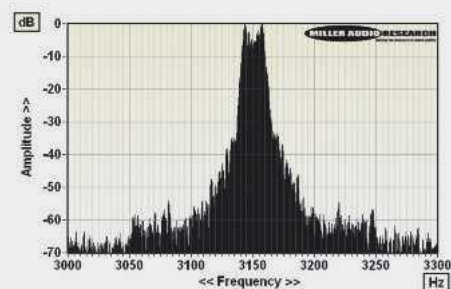
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## LAB REPORT

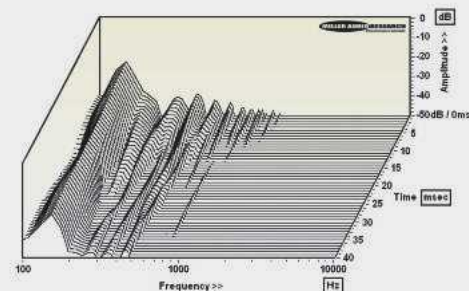
### HOLBO AIRBEARING

Measured directly through its Teflon spindle and bearing sleeve, rumble is a moderate  $-68.5\text{dB}$  (DIN-B wtd, re.  $1\text{kHz}/5\text{cm/sec}$ ) with a cluster of low-level modes between  $75\text{--}85\text{Hz}$  making an appearance as the principal resonances. Gratifyingly, this figure improves to a low  $-71.8\text{dB}$  (through groove) thanks to the isolation afforded by the weighty POM/Delrin platter, and all without the services of an aftermarket clamp. The platter gets up to speed in a relatively swift 3-4secs but, as supplied, our sample was running a full  $+5\%$  fast – fortunately the rear trim pot adjustment [see pic, adjacent] has sufficient range to accommodate at least  $\pm 10\%$  either side of  $33.33\text{rpm}$ . Absolute speed now achieved (before shipping to Ken) the drawback of many DC motor-equipped decks was subsequently revealed by the low-rate drift visible on the W&F spectrum [see Graph 1, below]. Many listeners are evidently insensitive to these  $0.5\text{Hz}$ – $1.5\text{Hz}$  changes in speed so the Graph, and  $0.15\%$  peak wow, 'look' worse than may be experienced in practice.

The  $163\text{mm}$  alloy tonearm tube is damped with an internal foam that holds the silver-plated copper litz wiring in place and successfully quells the harmonics and twisting modes following the main  $150\text{Hz}$  bending resonance [Graph 2]. The cartridge mounting platform adds little to the overall  $7.5\text{g}$  effective mass, so it remains best suited to higher compliance MM's than low compliance MC's. Friction is low enough at  $\sim 30\text{mg}$  within the 'air bearing'. In this case air is forced from within the sleeve rather than perforations in the supporting barrel, so while lower friction might be obtained by a higher air pressure, noise at the arm would increase. Holbo has achieved a fine compromise here. PM



ABOVE: Wow and flutter re.  $3150\text{Hz}$  tone at  $5\text{cm/sec}$  (plotted  $\pm 150\text{Hz}$ ,  $5\text{Hz}$  per minor division)



ABOVE: Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning  $100\text{Hz}$ – $10\text{kHz}$  over  $40\text{msec}$

### HI-FI NEWS SPECIFICATIONS

Turntable speed error at $33.33\text{rpm}$	$33.35\text{rpm}$ ( $+0.05\%$ , adjusted)
Time to audible stabilisation	4sec
Peak Wow/Flutter (Peak wtd)	$0.15\%$ / $0.04\%$
Rumble (silent groove, DIN B wtd)	$-71.8\text{dB}$
Rumble (through bearing, DIN B wtd)	$-68.5\text{dB}$
Hum & Noise (unwtd, rel. to $5\text{cm/sec}$ )	$-58.7\text{dB}$
Power Consumption	4W motor / 6W pump
Dimensions (WHD) / Weight	$430 \times 150 \times 420\text{mm}$ / $12\text{kg}$



ABOVE: Connected via a soft  $6\text{mm}$  PVC umbilical the 'Air' intake valve feeds both the platter and tonearm 'bearings'. Fine arm leads are terminated in gold-plated RCAs while  $33.3/45$  speeds are selected via a toggle and adjusted via two trimpots

cartridge. It was curious because, out of the three, the Tsurugi usually provides (to my ears) sharper note termination, but via the Holbo Airbearing, the Ortofon 2M Red was the champion. This reminded me of PM's remarks about compliance – this being a low effective mass arm – and those auditioning the Holbo pairing should take note of this.

### POWER AND IMPACT

Here we also end up with something a tad ironic: the Holbo Airbearing creates a superbly wide and deep soundstage, but it was less airy than I anticipated, given the absence of bearing contact. I hasten to add that this is a minuscule point, and I was listening hyper-critically through both Wilson Sasha DAW speakers [HFN Mar '19] and a pair of open-backed Audeze LCD-4z headphones.

I returned to The Kinks' *Arthur (Or The Decline And Fall Of The British Empire)* [BMG BMGCAT407DLP], primarily for the opportunity it affords for observing retrieval of detail. As ever, the most vaudevillian of the tracks, 'She's Bought A Hat Like Princess Marina', provided plenty of material for this purpose, including harpsichord, kazoo and other amusing sounds, as well as stunningly-recorded percussion.

With this LP, the Holbo Airbearing proved a knock-out, especially with low-octave instruments, the drum break at 2m 10s possessing ear-opening power and impact. The percussion, snare-and-cymbals in particular, should be deliberately

trashy and splashy, and the Holbo system emulated this music hall experience with aplomb. Vocals were noteworthy, too, a brief sojourn through the Falcon Acoustics LS3/5As [HFN Dec '18] testifying to the deck's natural midband.

Ultimately, it was Al Di Meola's latest Beatles tribute, *Across The Universe* [E-A-R Music/Edel 0214706EMU], which proved to be the most revealing disc. The sheer clarity of the recording, the atmosphere of acoustic instruments and the overall pristine nature were key tools for learning that the arm is compliance-sensitive and tracking ability will be affected. This, however, suited the Holbo turntable well enough because properly-executed parallel-tracking arms eliminate inner-groove errors.

Whatever my reservations about absolute airiness and transient attack, the Holbo Airbearing has a way with unplugged instruments which complemented the Di Meola album through sheer gracefulness. But to achieve this state of grace, I must reiterate: set-up – however seemingly simple – is the final arbiter. Achieving this superlative consistency and naturalness demands the right cartridge and obsessive attention to levelling. ☺

### HI-FI NEWS VERDICT

Perhaps I am recommending this for what some may consider the wrong reasons – value for money – but there is no denying that getting all this tech, and so well-executed, at this price is irresistible. It's comparable to DS Audio giving you an optical cartridge at a 10th the price of its flagship. For anyone captivated by air-bearing decks and linear-tracking arms, the Holbo Airbearing combo is a gift.

Sound Quality:  $84\%$



ABOVE: Compact pump [left] with air filter (gold) and output valve, and equally compact turntable PSU [right]



# NAD M33

Ever at the cutting edge of both analogue and digital Class D amplification, NAD's new M33 is the first to utilise Purifi's groundbreaking modules. All this and streaming too...

Review: **Andrew Everard** Lab: **Paul Miller**

**L**aunched last year, NAD's M10 all-in-one streaming system [*HFN* Jun '19] was remarkable in two ways. One was that this compact 'just add speakers' package was actually part of the brand's elite Masters Series, more usually populated by high-end DACs and amplifiers, while the other was that this little system, selling for around £2000, was exceptionally good, receiving a glowing review in *HFN* before going on to win a 2019-20 EISA award as Best Smart Amplifier.

The EISA citation described it as 'a true master of modern music playback' so, yes, NAD may have been rather late to the network systems party, but when it finally arrived, it made quite an entrance.

Now, with the launch of the £3999 M33 there are two network systems – or, in NADspeak, 'BluOS Streaming DAC Amplifiers' – in the range. The M33 takes the M10 concept and scales it up into a full-size hi-fi component, complete with network and Bluetooth/Apple AirPlay 2 connectivity, and a new amplification section delivering 'a minimum of 200W per channel', against the 100W of the M10.

## EVOLUTION TO REVOLUTION

The Class D Eigentakt amp module [see PM's boxout, p51] hails from the Danish Purifi brand, founded by Bruno Putzeys (Philips/Hypex), Lars Risbo (TacT/TI), and Peter Lyngdorf (Hi-Fi Klubben, DALI and Steinway Lyngdorf). It's an evolution of technology that has been used in past NAD designs, and the M33 is more than capable of exceeding its rated power output [see PM's Lab Report, p53].

The M33 looks very similar to the company's M32 [*HFN* Jul '18] – in that all the M-Series models have very similar styling – but with the addition of the M10's Gorilla Glass-covered 7in touchscreen display. And given that the M32 integrated

amp was pitched at around £3500, and the M50.2 streaming player (with no amplification) at £3799, the £3999 tag on the M33 could be something of a bargain, provided the performance is up to snuff.

But before we get to that, let's take a look at what the new NAD M33 offers within its full-width, 13.3cm-tall frame. It's a lot, despite this imposing-looking unit weighing a rather modest 9.7kg. For a start, it's worth noting that the combination of aluminium and gloss finishes gives the unit a real feeling of solidity, as is usual with NAD Masters products, while the 'magnetic iso-point' feet help keep vibrations out. Moreover, with its conventional remote handset and Android or iOS BluOS app operation, you're unlikely to be touching that glass front panel too much and leaving fingerprints.

Network access allows the M33 to be integrated into multiroom audio systems, Windows or macOS desktop apps, and a whole range of third-party smarthome

solutions, including Apple, Control4, Crestron, Lutron and more. As if all that wasn't enough, it can also be 'taken over' by Amazon Alexa and Google Assistant devices or, via AirPlay 2, Siri.

## FEATURE PACKED

A wide array of digital input options is available. Naturally, the M33 can stream content from network sources – using Wi-Fi or wired Ethernet connectivity – at up to 192kHz/24-bit, as well as accessing online streaming services including Amazon Music HD, Deezer, Qobuz, Spotify and Tidal (with MQA decoding for Tidal Masters streams), along with TuneIn Internet radio. It also has a USB input for playback from storage devices, an HDMI input for TV sound and an array of conventional digital inputs: two S/PDIF coaxial, two optical and an AES/EBU socket. Finally on the digital front, the M33 is also Roon-ready, although our early sample showed up as available, but 'uncertified'.

**RIGHT:** Substantial switchmode power supplies occupy the front of the amplifier [top], with network/Bluetooth, digital input and analogue (ADC) processing [lower left] and two of Purifi's Eigentakt Class D amplifiers [lower right]





There are also analogue inputs, converted to digital at user-selectable sampling rates of up to 192kHz/24-bit. These extend to a MM/MC phono input, said to 'rival specialised outboard units', a further line input and one set of balanced inputs. Meanwhile, in addition to the two sets of loudspeaker outputs, enabling bi-wiring and two-zone operation, the M33 also sports a set of preouts, either usable full-range into an external power amplifier, or configured as low-pass filtered subwoofer outs. As for the front panel headphone output, this is powered by its own amplifier module, while the two-way implementation in the Qualcomm aptX HD Bluetooth module allows music to be played wirelessly to suitable headphones.

It's also possible to go into the menus and rename inputs, hide those not used,

and so on. It's all a matter of a little time spent in set-up reaping rewards in day-to-day use, when a touch of the little window above the main display panel will wake up the M33 set up exactly as you want it.

See? It's all very comprehensive – but we're not done yet. The M33 also

has built-in Dirac room correction [see *HFN* Jul '20], and comes with a microphone to measure your room, plus five memory profiles to account for different listening positions or conditions – NAD suggests with

curtains open or closed – and Dirac Bass Management for those two subwoofer outputs. There are also conventional tone controls in the menu system, if you need them, and the speaker outputs can be switched into bridged

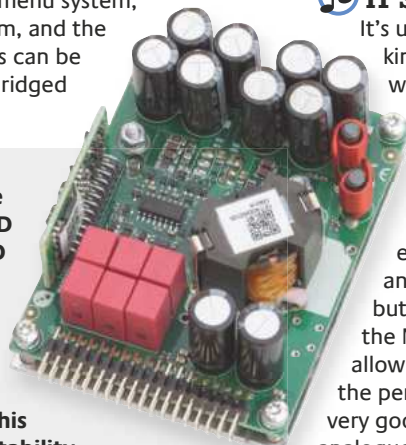
'At this stage I was well into "having a ball" territory'

## ULTIMATE CLASS D?

There's a clear evolution in technology and performance from Hypex's original and innovative 'self oscillating' UcD through to Ncore and now to the Purifi Eigentakt Class D module used in the M33 [pictured]. The original UcD circuit married an input comparator, a power stage and LC filter with feedback looped back between output and input 'undoing' enough of the LC filter's phase shift to ensure stable operation. Loop gain was a respectable 30dB, but designer Bruno Putzeys has said this was as far as he could go and still guarantee the amp's stability.

The later Ncore modules combined a UcD amp with a filter that simulated its response – the difference between the two outputs being the distortion of the power stage alone. This error signal drove the corrective feedback with a limiter now added to the correction to prevent over-reaction when the Ncore amplifier clipped. So Ncore broke the link between stability and loop gain, offering over 50dB of feedback and with the same load-invariant frequency response that distinguished UcD from run-of-the-mill Class D amps.

The Eigentakt circuit superficially resembles Ncore's but now includes a low-pass filter added at the input, all encompassed within the Eigentakt's 'global' feedback regime. Loop gain is extended yet again but the control circuit is now so complex that component values had to be derived by modelling software and not tweaked by hand. The result? A full 75dB of feedback, unconditional stability, a vanishingly low 0.006ohm output impedance (M33) and flatter, more extended response. And the nCore's 70kHz notch [*HFN* May '20] has disappeared... PM



**ABOVE:** Volume aside, the large touchscreen dominates matters here – even the on/standby switch is hidden on the top surface above the display. But most operation will be hands-off

mode, allowing the M33 to deliver a more than healthy 640W.

Finally, I promise (!), the M33 is effectively futureproofed by the inclusion of NAD's 'Modular Design Construction' architecture, in the form of two blanking plates at the lefthand end of the rear panel [p53]. Removing one of these will allow an MDC expansion card to be slotted into place, expanding the functionality of the product – for example some of the company's other models can be upgraded with streaming cards or enhanced DACs.

## IT'S A BLAST!

It's usual, with products of this kind, that the first thing to do when unboxing and connecting them up for review is to run a check for any software/firmware updates. Our early sample initially displayed some occasionally erratic behaviour, especially in the volume control and input selection departments, but one firmware update later and the M33 was much better behaved, allowing concentration to switch to the performance on offer. Which is a very good thing, as whether playing analogue or digital sources, streaming from a network store or accessing an online service, this 'BluOS Streaming DAC Amplifier' is nothing short of exceptional.

Yes, it can sound a tad flat at very low volume levels, but as soon as you get up to comfortable settings the sound opens up and begins to involve the listener. And that is as true when using the analogue inputs, the ADC set to its maximum 192kHz, as it is with digital ins or network streaming.

The phono stage is extremely good, as I discovered when I cranked up my Rega turntable to play my 'bought on the day of release' copy of Elvis Costello's *Armed Forces* [Radar RAD14], and instantly heard ➔



# Natural selection.

Atlas cables are designed with clear, consistent objectives in mind, making it possible for us to have ideas and technologies created for our 'high-end' products quickly trickle down through the range – the new Element Mezzo XLR and Equator XLR cables are the latest examples in our evolution.

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D E S I G N E D   &   H A N D M A D E   I N   S C O T L A N D







**ABOVE:** Modular Design Construction (MDC) modules will add extra options but the M33 is already equipped with four S/PDIF (two coax/two optical), one AES/EBU, wired/wireless network, USB and HDMI digital ins alongside MM/MC phono, two line ins (inc. balanced on XLR), pre and sub outs plus bridgeable 4mm speaker outputs

the off-kilter 'Accidents Will Happen' played with all its bite, and 'Oliver's Army' blasted out with real solidity and attack. Instant 1979 nostalgia!

Like other recent NAD amps using variations on Class D technology, this all-in-one has two essential components to its sound. It's always crisp and clean, extracting bags of detail from whatever you choose to play and delivering superb dynamics, and it also seems unburstably powerful, allowing you to play it as loud as you like, and into just about any speakers, without any sign of hardening or edginess setting in.

## TOTAL CONTROL

I used it with great success into loudspeakers as diverse as the little Focal Chora 860 and Neat's Iota Xplorer [HFN Jul '18], and in each case there was a sense of fine control as the amplifier made the most of the speakers' capabilities. Indeed, as PM notes in his lab report [opposite], instead of hitting the end stops abruptly it just softens a bit when you really push it hard.

That ability to 'go loud' and stay in total control is heard with The Orchestra Of The Americas recording of Falla's *The Three-Cornered Hat* and *Nights In The Gardens Of Spain* [Linn CKD 625, 192kHz/24-bit], with its explosive opening, thundering percussion and blaring brass giving way to what is sultry, intricate orchestration.

The M33 handles the dynamics and the detail equally well,

**LEFT:** NAD's HTRM 2 full system remote gives direct access to volume, mute and input selection while also allowing the M33's comprehensive config. menu to be navigated at a distance



letting the music flow, especially in the swirling 'Danza de la Molinera'. This whole set is bold, expressive and dramatic, and the M33 laps it up, bringing out the warm glow of the playing as well as the scale of the orchestral forces under conductor Carlos Miguel Prieto, and as striking with the flow of the strings as it is with the punch of the rhythms.

Play an album such as Yo-Yo Ma, Chris Thile and Edgar Meyer's delicious *Bach Trios* set [Nonesuch 7599 793920], and the M33 delivers a beautifully focused view of this arrangement for double-bass, cello and mandolin, with the two 'big fiddles' having a sonorous yet tightly defined sound, above which Thile's contributions have a wonderfully tight snap.

And when you change pace entirely to bassist Brian Bromberg's 2010 album *Bromberg Plays Hendrix* [Artistry ART 7030], the M33's combination of slam, with drummer Vinnie Colaiuta, and insight into Bromberg's multi-layered basses is magnificent. At this stage, well into 'having a ball' territory, I loaded up Liam Gallagher's *MTV Unplugged* set [Warner 0190295279363] for more nostalgia, enjoying the way the M33 revealed the layers of instrumentation, all the way through a glorious singalong 'Champagne Supernova' packed with detail, atmosphere and ambience. ☺

## HI-FI NEWS VERDICT

All the system you could ever want? The M33 has a strong claim to that description, with its wide-ranging flexibility, ease of use and the acclaimed NAD sound, along with the usual 'drive whatever you want' ability. It's as impressive with analogue sources as when doing its streaming thing, and future upgradability courtesy of those MDC slots on the rear furthers confidence in this amp as a long-term buy.

Sound Quality: 86%

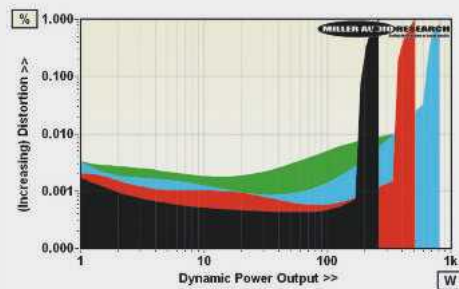


## LAB REPORT

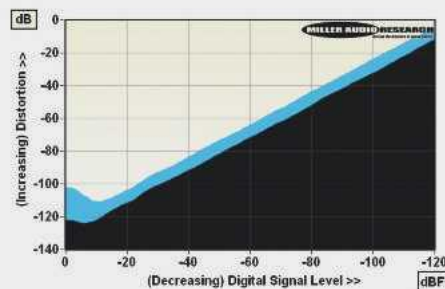
### NAD M33

Tested via its analogue line input, the M33's power output and distortion rather depend on the position of the volume control because the input ADC (sampling at 48kHz/192kHz/24-bit) can clip before the output. At a volume setting between 0dB and -6dB distortion is 0.0005% (very close to NAD's specification) but falls still further to 0.0003% between -6dB and -12dB on the numeric readout (all for the same 1kHz/1W/8ohm output). However, with the volume at -12dB the max. power output is just 2x77W/8ohm because the input clips first, while between -6dB and 0dB it is 2x220W/8ohm and 2x430W/4ohm. True to tradition, and despite being a Class D amp [see boxout, p51], NAD has engineered some useful headroom into the M33 which supports peaks of 261W, 515W and 815W into 8, 4 and 2ohm loads with 502W/1ohm limited by current protection (22.4A). Note how there is no abrupt clipping point but, instead, maximum power is 'feathered' as it approaches 1% THD [Graph 1]. This is the modern-day equivalent of NAD's 'Soft Clipping'.

The digital performance is equally impressive with vanishingly low 0.00004-0.0003% distortion from 20Hz-20kHz [see Graph 2] and jitter suppressed to <10psec across all sample rates. Frequency response(s) via the digital inputs necessarily scale with input sampling rate reaching ±0.02dB/20kHz, -0.35dB/45kHz and -1.3dB/90kHz with 48kHz, 96kHz and 192kHz media, respectively. These are exceptionally flat and extended responses even though the 83dB stopband rejection suggests the linear phase digital filtering is not overly aggressive. Moreover, low-level linearity is good to within ±0.1dB over a 100dB dynamic range while the A-wtd S/N is a very fine 110dB. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 22.4A



**ABOVE:** Distortion vs. 48kHz/24-bit digital signal level (1kHz, black; 20kHz, blue). Note expanded 140dB scale

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	220W / 430W
Dynamic power (<1% THD, 8/4/2/1ohm)	261W / 515W / 815W / 502W
Output impedance (20Hz-20kHz)	0.006-0.009ohm (95ohm/pre)
Freq. response (20Hz-20kHz / 90kHz)	-0.01 to -0.19dB / -12.5dB
Digital jitter (48kHz/96kHz, 0dBW)	<5psec / 8psec
A-wtd S/N ratio (re. 0dBW/0dBFS)	94.0dB (Analogue) / 109.6dB (Dig)
Dist. (20Hz-20kHz; 0dBW/-20dBFS)	0.0002-0.003%/0.00004-0.0003%
Power consumption (idle/rated o/p)	32W / 446W (29W standby)
Dimensions (WHD) / Weight	435x133x396mm / 9.7kg

# System Audio Legend 40

This Danish brand, new to the UK, has made a name for itself on the Continent with its passive-to-active speakers  
 Review: **Mark Craven** Lab: **Paul Miller**

**T**he 1994 Keanu Reeves movie *Speed* rewrote the Hollywood rulebook when it came to action cinema. System Audio's Legend 40 is not quite as disruptive, being a three-way floorstander with a mid-level price tag, but it too has a focus on speed. 'A System Audio speaker is much faster than a conventional loudspeaker', boasts the Danish brand. Time to buckle up, then...

The brand will probably be unfamiliar to many UK audiophiles, as it only recently arrived in the UK via distributor Karma AV, but System Audio has a history going back to the 1980s. Founded by musician (and company head) Ole Withthøft, it now sells a trio of speaker ranges – the affordable Saxo, premium Legend and the active Legend Silverback, plus subwoofer, centre channel and on-wall variants. The Legend 40 tower auditioned here is priced at £2900 and, as with all of the company's models, is available in either a satin black or satin white finish.

Unusually, the speaker has an upgrade path from wired passive to wireless active. Should you wish to at a later date, System Audio will retro-fit its rear-mounted amplifier/DSP module, effectively turning the Legend 40 into its Legend 40 Silverback [see boxout, p55].

## ALL TOGETHER NOW

When it comes to driver implementation, System Audio boasts of an 'holistic approach'. The tweeter, midrange and bass units in its Legend family were designed 'in one coordinated process', says Withthøft. 'We focus on building a uniform sound character while making sure we spend resources on features audible to the user.' Continuing the holistic theme, the speakers are hand-built in Denmark, one employee working on one speaker from start to finish.

The Legend 40 drivers are, from top to bottom on the front baffle, a 25mm tweeter, 135mm midrange, and two 135mm woofers. The mid and bass drivers use a woven fibre cone chosen for its combination of low weight and high damping, supported by a rubber surround with in-built resonance control rings. They appear to be identical, but lengthier voice coils on the woofers, which patrol frequencies below 400Hz, enable a longer throw. The two bass units work out of a rear-firing port, the combination good to a claimed 30Hz [see PM's Lab Report, p57].

## LENS FLAIR

The woven silk tweeter, meanwhile, uses a patented DXT (Diffraction eXpansion Technology) acoustic lens to combat baffle diffraction, improve off-axis response, and smooth integration with the midrange at the 2kHz crossover point. DXT lenses have, of course, been found on loudspeakers

from other brands including Kii Audio [*HFN* Apr '20] and Grimm Audio [*HFN* Mar '11], but System Audio says it's worked specifically with DXT's patent-owner on the Legend 40's tweeter development.

The cabinet's MDF front baffle is 29mm-thick, set on a 5mm walnut inlay, while the curved sides use six layers of pressed 3mm MDF. Internally, an 18mm MDF plate separates the midrange and bass drivers into separate chambers.

This model is the smaller of System Audio's two Legend floorstanders –

**RIGHT:** 135mm woven-fibre midrange [top] and two 135mm bass drivers look identical but the mid unit has a shorter (lighter) voice-coil. The tweeter with DXT lens/waveguide was developed with the Danish patent holder

*'It sends flange guitars soaring and gives body to organ notes'*



## GOING ACTIVE

System Audio says its Legend speakers represent a 'world's first', as they can be upgraded to active/wireless operation through the addition of its Silverback amplifier/electronic crossover module (£1800) and Stereo Hub (£400 when purchased at the same time). For the Legend 40s, the former splits a claimed 300W of amplification across the drive units, and introduces DSP that results in a boosted low-end performance down to an anticipated 20Hz. The Silverback module caters for analogue line and digital network sources, but for greater wireless freedom System Audio's Stereo Hub uses WiSA technology (not your own Wi-Fi network) to support 192kHz/24-bit streams. The hub also includes a range of inputs including analogue line, and digital optical/coaxial, USB and HDMI. Additionally, it integrates Apple AirPlay, Chromecast, Spotify Connect and Bluetooth. The Silverback's WiSA connection also means it's compatible with other WiSA streamers, such as Primare's SC15 Prisma.

the costlier Legend 60 (£5400 per pair) adds two more 135mm bass drivers – and certainly merits the brand's 'slender' description. It's therefore a speaker that will please anyone seeking some hi-fi discretion (but probably not those who want a design statement), and with the black magnetic grilles in place, my satin black sample seemed to almost disappear from view.

System Audio expects its speakers to appeal to the spatially challenged, and this is emphasised by a recommended placement of just 15-35cm from the rear wall – in fact, it suggests the Legend 40 is suited to close-to-boundary placement, another string in its living room-friendly bow. The modest 19.5kg weight and manageable dimensions also mean that experimenting with positioning and toe-in is pain-free.



### SOUND OF SPEED

The use of lightweight driver materials in the pursuit of 'speed' is repeatedly in evidence when listening to the Legend 40s. They seem to relish the rhythms of music and quick-fire instrumentation, resulting in a clear, dynamic presentation. And the slim form doesn't equate to a lightweight sound. Bass extension is pleasingly deep and tracks that demand

soundstage width and depth are well-served.

Load up 'Cream', from Prince's 1991 album *Diamonds And Pearls* [Warner 7599-25379-2; 44kHz/16-bit download]

and the Legend 40s quickly gets into the

funk/pop groove. There's appreciable snap and clarity to bass and drums, and you get the sense that the speakers' driver quartets are operating in total harmony. This piece calls for space between the instruments, and these floorstanders oblige. The stop/start ability of the woofer and midrange drivers leaves bass notes and wah-wah guitar sounding wonderfully tight, and works wonders with the staccato vocal.

### RAZOR SHARP

It's such a dextrous performance that I dug out Machine Head's 'This Is The End' [*Unto The Locust*; Roadrunner Records RR7702-2], which rampages at a furious pace and underpins razor-sharp thrash guitar riffs with 16th note kick-drums. It doesn't so much tumble from the Legend 40s as march out like a well-oiled regiment.

Norah Jones' jazz-tinged debut album *Come Away With Me* [Parlophone; Tidal Master] offered a change in pace. The title track's softened composition makes little use of the Legend 40s' rhythmic attributes but, instead, showcases their ability to resolve subtle detail. The reproduction of Jones' vocal, in particular, makes that £2900 look like money well spent.

Her midrange is soft but well-rounded, her voice cracking gently as she ventures higher. She's put firmly in the spotlight, close-mic'd but with a very slight reverb, while soft percussive brushing is as eloquently conveyed as the piano accompaniment. These speakers seem neither overly warm nor unduly bright – just clean, incisive and typically able to get the best from high-quality recordings.

From Jones' acoustic double-bass to the synthetic low-end of Hans Zimmer's original soundtrack recording for *Blade Runner 2049* [Epic 19075803092]. The Legend 40s put in a commendable effort with the dramatic low-frequency rumbles ➞





## Harmonic Resolution Systems – chassis noise control



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The proprietary HRS polymer interface used with all Nimbus chassis noise reduction products totally absorbs all destructive resonances on contact. The result is increased resolution, speed and dynamics, whilst removing the harshness due to the distortions caused by these resonances.

Competitive isolation devices that rely on mechanical transfer of energy are less effective because of their narrow band approach, and therefore cannot be optimal for all audio components. Direct metal or hard material contact with the chassis results in a brighter, more forward sound.

HRS system components will prove to be an essential collection to remove noise from your hi-fi. And less noise, of course, means more music.

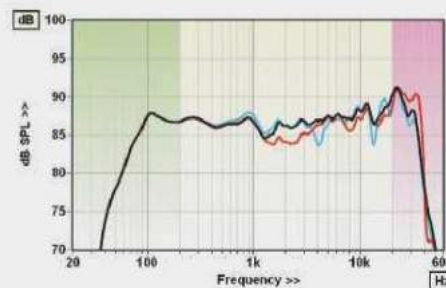
Paul Rigby – The Audiophile Man, Dec 16

## LAB REPORT

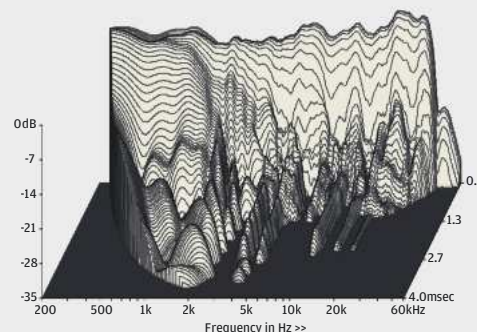
### SYSTEM AUDIO LEGEND 40

A four-driver, reflex-loaded three-way it may be, but the Legend 40 remains compact as floorstanders go, so even with a 40hm nominal impedance its rated 90dB sensitivity looks very optimistic. My measurements suggest a figure some 2.5dB lower is more realistic – taken either at 1kHz/1m/2.83V or as a mean from 500Hz–8kHz. SA indicates a minimum 30hm/140Hz impedance for the Legend 40 and this was matched on test at 2.9ohm/130Hz – this plus relatively big swings in phase angle from +40° to –63° make for a very tough load through the bass region. Weedy amplifiers need not apply... Distortion, principally 2nd harmonic, is <0.5% through bass and midrange (re. 90dB SPL/1m) while an increasing 3rd harmonic pushes this up to <1% through the treble – all worthy figures nonetheless.

Forward frequency responses measured at 1m on the tweeter axis [see Graph 1], showed a pair matching error of 2.3dB between the two cabinets due to a dishing in output from 1.3kHz–4.3kHz from one sample [red trace]. Output picks up through presence and treble with modest +2.8dB response errors, although the grille [blue trace] produces cancellation notches at 4kHz and at 13kHz. The step in response at 1.2kHz correlates with a driver breakup mode [see Graph 2] and is close to the 4th-order 2kHz mid/treble crossover. Corrected nearfield bass measurements, with no boundary reinforcement, show a similarly steep LF roll-off below 100Hz [green shaded area] – the two bass drivers peak at 117Hz and the port is tuned to a much lower 40Hz, so the modest 50Hz bass extension (–6dB re. 200Hz) will be much improved by near-wall positioning. 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 typically decay quickly here with low-level modes remaining at 1-2kHz and 4-5kHz

**LEFT:** The two bass drivers work out of a rear-facing port below 400Hz, the sealed midrange between 400Hz–2kHz and the treble above. The three-way, 4th-order crossover is not split, so bi-amping/bi-wiring is not accommodated

its twin guitars left and right, cymbal crashes mid-right and a kick-drum emanating dead centre. Brian Johnson's tobacco-torn vocal then pushes through from behind. However, with the double whammy of Pink Floyd's 'Breathe (In The Air)' and 'On The Run' [*Dark Side Of The Moon*; Tidal Master], the Legend 40s have to become more involved to capture the dreamy nature of the first recording, sending flange guitars soaring and giving body to organ notes, and then integrate seamlessly to hold 'On The Run's signature stereo pans in check. It's a thrillingly evocative performance.

### THUMBS UP

With their entirely unfatiguing sound, my listening began to resemble a kid at the pick and mix counter, and regardless of track I always found an attribute that made me sit up and pay attention, be it Adele's mesmeric vocal in 'Hello', the foot-tapping rhythm of The Hollies' 'Long Cool Woman In A Black Dress', or the sweet but raspy harmonica in Bruce Springsteen's 'Nebraska'. And while the clean, revealing nature of the Legend 40s means they deserve a diet of pristine recordings, even a low-fi Spotify stream of Johnny Winter's rough-and-ready 'Self-Destructive Blues' warranted a thumbs up, with its blues solo given authentic crunch and bite. ☺

### HI-FI NEWS VERDICT

The Legend 40s are an impressive landing into the UK market for System Audio. From slender, non-descript cabinets comes a performance that's always descriptive of the music, whether it calls for delicate, detailed highs, a midband capable of softness and steel, or nuanced, unflustered bass. If you seek rhythm, control and slick imaging from cabinets that won't dominate a room, this is a fine place to start.

Sound Quality: 85%



of the opening instrumental, finding textural details and conveying scale. Yet they fall short of unearthing the ominous, almost terrifying depth that beefier loudspeakers can, reaching the limits of their driver design and cabinet volume.

That said, this System Audio pairing has the knack of sounding bigger than you might imagine, and can image precise details as well as creating a fluid, forward-feeling wall of sound. AC/DC's 'Hell's Bells' [*Back In Black*; Columbia 510765 2] sits in the former camp, with a relatively sparse mix that places

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.0dB / 87.4dB / 85.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.9ohm @ 130Hz 23ohm @ 80Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–65° @ 92Hz 39° @ 28Hz
Pair matching/Resp. error (200Hz–20kHz)	2.3dB / ±2.8dB/±2.6dB
LF/HF extension (–6dB ref 200Hz/10kHz)	50Hz / 36.7kHz/39.3kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.4% / 0.3% / 0.8%
Dimensions (HWD) / Weight (each)	955x190x265mm / 19kg



## Copland CSA100

In what is looking like it might be a trend – tube hybrid integrated amplifiers – Copland joins in with a Danish beauty at a sensible price, the all-singing, all-dancing CSA100

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

Three thoughts hit me as soon as I switched on the Copland CSA100 integrated amplifier. The first was that it was an all-embracing, do-everything tube/transistor hybrid like the Vinnie Rossi L2i-SE [HFN Jul '20], rated at a similar 100W/8ohm if at a fraction of the price, at £3498. The second was that I want it to kick off a fashion for cool, fully-loaded integrated hybrids because they are the smartest option for offering the best of the tube/solid-state worlds. The third is the realisation that I need to look deeper into hi-fi system building.

How did the systems issue pop into my head? Because – as with the Vinnie Rossi and other assorted items – I found the CSA100 forming part of an unlikely combination, one that would not simply emerge intuitively on paper, or be created by market forces as were the old Dual/NAD/KEF or Linn/Naim systems that were *de rigueur* 35 years ago. The Copland CSA100, with its FET/triode tube preamp and bipolar transistor power amp stages, so perfectly suited the 'accidental' mid-priced system in which it was reviewed (more anon) that I realised what a minefield system building remains despite reviewers, retailers, common sense or other aids.

### POWER OF TEN

Think about it: if you narrowed your choices for a new system down to two possibilities for each component type, at a minimum of CD player, turntable/arm, cartridge, amp and speakers – you would be faced with ten possible combinations to audition. What the Copland CSA100 does is remove the variables of headphone amp, DAC, phono stage and, if you like matching units, CD player, because Copland's even shares the CSA100's remote [see p61].

I must reiterate – this unit considers everything, even giving you such extras as

a balanced input, a separate pre-out and a tape loop, which equates to fixed and variable outputs for system expansion, and a choice of two optical, one coaxial and one USB-B digital input. The latter will hook-up to a PC or Mac or standalone 'music library' such as those in the Melco series, although wireless streaming will be served by the forthcoming optional aptX HD Bluetooth module. Analogue is handled by three line inputs (including tape) and MM phono, with an earth tag.

Let's start with what it doesn't have – an MC stage for the phono input. I used it with the usual high-gain MCs and normal MMs, and it even provided sufficient gain to accommodate EAT's Jo N°5 MC [HFN Dec '18] up to a point. While the analogue user is well-served, it's the digital devotee who will have a blast with this. Select a source via the remote or rotary selector and your choice will be indicated by the appropriate blue LED on the 'wheel' in the middle. Choosing 'digital' enables the DAC

and lights up the LED at 3 o'clock, as well as the LEDs beneath the small toggle on the fascia's lower left corner. Other LEDs indicate lock status and DSD file types.

### PURE INSTINCT

The rotary selector itself chooses between the various digital inputs, clockwise from the left being BT for the forthcoming Bluetooth module, followed by LEDs for coaxial, the two Toslink optical inputs and USB. I stuck with coaxial S/PDIF, which afforded a sound more in line with the overall character of the CSA100 via the line inputs and the phono stage.

For any seasoned hi-fi enthusiast, set-up will prove instinctive. Multi-way binding posts for the speakers, clearly-labelled inputs, an IEC mains inlet – there is nothing to adjust or worry about around the back, and one of two only minor warnings includes a circa-35sec warm-up should one anticipate instant sound. The other point to bear in mind is that the CSA100 is phase



**RIGHT:** High voltage line stage uses a single 6922 double-triode [left] from Electro-Harmonix while the output stage comprises a pair of high current transistors from On Semiconductors [on heatsink]. Note large toroid [right] and PSU [left]





inverting, courtesy of its double-triode line/preamp [see PM's boxout, below]. If you think you, or your speakers, are fussy about absolute phase then this is another consideration to stir into the mix.

But returning to my theme of system matching and here there's a sage lesson to be learned – at least, there was for me. This is because the CSA100 thoroughly trashed the oddball notion of 'spend 80% of the budget on the turntable and the remaining 20% on everything else'. For me, a sense of balanced disposal of one's budget has vanquished it.

### GO ALL THE WAY

Adherence to relative value and system building in context have thus become *causes célèbres* as far as I am concerned.

**'This is wall-to-wall sound and the CSA100 can handle it'**

With a £3500 integrated amplifier as the subject of the review system, I used a MacBook Air and a vintage Marantz DV8300 multi-format player for digital sources and the EAT B-Sharp turntable [HFN Jul '20] with Jo N°5 as the analogue source (£2000 combined).

Speakers for the main assessment were Falcon Acoustics LS3/5As (circa £2400) [HFN Dec '18], along with the KEF LS50 [HFN Jul '12] as a variable. Headphone listening included the astounding Audeze LCD-1 headphones (£369) [HFN Mar '20] and Master & Dynamic's MH40 (£229). These partnering products adhere to the relative value of the CSA100, as I do not see someone with a system at this price point running headphones with a

**ABOVE:** Attesting to its comprehensiveness, (l-r) – rotary input selector, tape monitor button, source indicator and IR 'eye', standby, volume control and headphone socket

retail price higher than, say, that of the loudspeakers or amplifier.

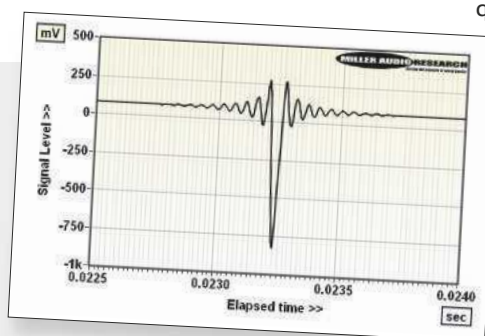
Opening with a raucous rocker, as past experience has shown Copland products err toward the 'nice', I turned to Raspberries' sublime power pop epic, 'Go All The Way', the opener of their debut album, via CD from the box *Raspberries Classic Album Set* [Caroline CAROLR021CD]. This is one of those 'kitchen sink' releases with so much going on that it could cause a migraine in the meek, the mix so poor an attempt at emulating Phil Spector that it sounds like mono most of the time – until the atmospheric hit you.

What the CSA100 achieved wasn't quite a miracle, but it made the harshness less intrusive and was a boon for hearing the superlative harmonies. For such an astounding milestone in pop, this 1972 release is a truly dire recording, bordering on the sadistic, and it needs all the help it can get if you want to appreciate it outside of the AM radio, 2in speaker playback for which it must have been intended. The CSA100 cut through the mire without compromising the sheer majesty that inexplicably survives the mix.

### A QUESTION OF PHASE

The audibility, or otherwise, of 'absolute phase' remains a subject of debate among audiophiles [see Opinion, HFN May '17, and p97] but the ability to invert the phase – more correctly the *polarity* – of the audio signal has also long been included as a facility on many an outboard DAC, for example. Polarity defines the direction of travel of a signal so, when inverted, positive-going becomes negative-going, and the leading edge of a transient causes a speaker cone to move inwards rather than outwards.

This is perfectly illustrated by a digital impulse processed through the CSA100 [see inset Graph] where the analogue output signal is negative- rather than positive-going. (Note that the pre/post ripples are a function of the DAC's linear-phase digital filter and occur whether absolute phase is maintained or inverted.) So compression of the air in front of a driver cone becomes rarefaction in this simple example and, provided you have a standard pair of passive speakers, you can experiment for yourself by connecting red to black and black to red at the back of the cabinets. Can you hear any difference? In Copland's case, absolute phase is flipped in the tube stage (both channels are routed through a single double-triode here) and this inversion carries through to the speaker terminals and the preamp output. Incidentally, the tape loop retains absolute phase... PM



### 'LIGHT BULB' MOMENT

Turning to the last CD in the box, you get to hear why Raspberries' harmonies are up there with The Hollies' vocals. 'Overnight Sensation (Hit Record)' makes you wish that the same care had been applied to their first album – and they share the same producer! Whatever, this track sparkles through the CSA100, and that is what all power ballads should do. But whether listening to the opener of their first album or their last, the grandeur of their oeuvre is undeniable. This is wall-to-wall sound ➡

# [master]

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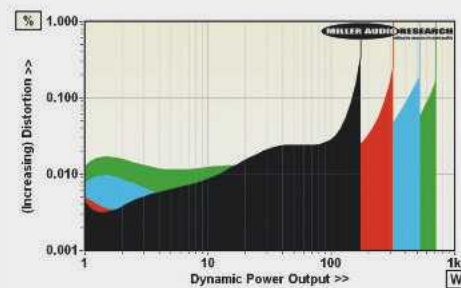




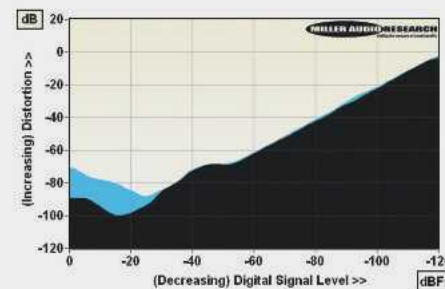
## COPLAND CSA100

Courtesy of Copland's substantial PSU [see inside pic, p58] the CSA100's power output readily exceeds its rated 100W/8ohm and 180W/4ohm specification at 2x125W and 2x193W, respectively, and supports bursts up to 174W, 320W, 527W and 715W into 8, 4, 2 and 1ohm under dynamic conditions at <1% THD [see Graph 1, below]. Distortion is rather vaguely spec'd at '0.04%' although, in practice, it is impressively flat with frequency while the largely 2nd harmonic increases uniformly with power output from 0.003%/1W, 0.01%/10W and 0.035% at the rated 100W (all into 8ohm). Overall gain of the tube and transistor stages amounts to a sensibly moderate +38.6dB (balanced input) but the A-wtd S/N ratio is slightly below average at 79.7dB. This is a subjectively pleasing white noise rather than hum or buzz, however. Also via the analogue inputs, the CSA100's response is very flat and extended, though there is some 'movement' in HF extension depending on volume position. Best case, the CSA100's  $\pm 1$ dB limits are <1Hz to 100kHz.

Measured via the tape loop (the preamp output leaves the power amp in-circuit), a 0dBfs digital input yields a 2.2V output, the ESS9018S-based DAC stage offering a 105.5dB A-wtd S/N ratio and minimum 0.0013% THD over the top 10dB of its dynamic range [see Graph 2]. Jitter is suppressed to an impressive ~20psec via all sample rates while the 82dB rejection of alias images, pre/post ringing on transients [see Graph, p59], and the frequency response(s) are all linked to the DAC's default linear phase digital filter. The responses reach out to -0.1dB/20kHz, -0.7dB/45kHz and -2.3dB/90kHz with 48kHz, 96kHz and 192kHz digital files, respectively. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 26.7A



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

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	125W / 193W
Dynamic power (<1% THD, 8/4/2/1ohm)	174W / 320W / 527W / 715W
Output imp. (20Hz–20kHz, Tape/Amp)	195ohm / 0.029–0.048ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.00 to -0.11dB/-1.05dB
Digital jitter (USB / S/PDIF)	18psec / 20psec
A-wtd S/N ratio (DAC/Amp)	105.5dB (0dBfs) / 79.7dB (0dBW)
Distortion (DAC, 0dBfs/Amp, 0dBW)	0.0014–0.055% / 0.0095–0.011%
Power consumption (idle/rated o/p)	38W / 425W (2W standby)
Dimensions (WHD, each unit)	435x135x370mm / 14kg



ABOVE: MM phono is joined by a tape loop, three line ins (two on RCAs, balanced on XLRs), a preamp out and single sets of 4mm speaker terminals. Digital inputs include coaxial, two optical and USB. Note hole for forthcoming Wi-Fi/BT streaming adapter

and the CSA100 can handle it, even through small monitors.

Worrying about my disdain for the sound of 'Go All The Way,' and wanting to test the phono stage, I put on *Raspberries' Best* [Mobile Fidelity MOFI 1-032], wondering if what has to be the finest pressing of a Raspberries LP would prove any better. Nope: it was the same insulting pile of sonic guano, emphasised by the other tracks exhibiting sonic worth diametrically opposed for sheer clarity. This proved a 'light bulb' moment because I was able to switch from LP to CD to determine the nature of the CSA100, and sure enough, the DAC section had a similar sonic signature to the phono stage's.

## FEEL THE FORCE

Clearly, whoever voiced this at Copland used the same criteria for digital and analogue, and this will be greatly appreciated by fastidious users of both, especially those who are critical of one format or the other. Funnily enough, I found the digital playback just as enticing as the analogue, with surprises galore when I listened to Earth Wind & Fire's *Spirit/That's The Way Of The World* [Vocalion CDSML 8574].

This mid-1970s, world-class funk-disco was recorded with punch,

power and detail, and I was even captivated by the synth-y opening to 'Biyo', a sound-effects moment for which there is no 'real' reference. When 'Shining Star' hit, a familiar track to anyone who was

sentient 45 years ago, I started to appreciate why so may listeners – not necessarily indecisive – turn to hybrid amplifiers. It had all the kick, crispness and force associated with hefty solid-state amplification, while the presence of a lone valve (and this might be a stretch, or a display of my bias, to some of you) kept the treble from turning edgy.

Disco was always characterised by a tech-y feel, maybe even exaggerated sonic properties, but the CSA100 delivered the shake-your-booty excitement without ever resorting to aggression. It's an area where Copland has always excelled and which it hasn't abandoned, its hybrid sounding as ear-friendly as its all-valve designs. I hope I am getting across to you all that this amp seems incapable of causing listener fatigue.

As a farewell to the CSA100, I put on *Howard Tate* [Analogue Productions APO 009], a live mini-LP that Chad Kassem's crew produced a decade ago, featuring my all-time favourite R&B singer. With a crack band and a guitarist whose notes soared, the ageing singer brushed away the years to deliver heartfelt renditions of a couple of his classics and gems like B B King's 'Sweet Sixteen'. The intimacy was tangible, the space enveloping. The CSA100 did all of which it was asked. ☺

## HI-FI NEWS VERDICT

Maybe I'm getting soft in my dotage but I prefer to think it's the hardware getting better: I utterly loved the Copland CSA100, the review system playing Cupid. I listened for hours on end, flitting from source to source, even over-indulging in headphones. The 'why' is simple: the CSA100's sound is so 'more-ish' you won't want to leave it alone. The value and the plethora of features are mere bonuses.

Sound Quality: 86%



LEFT: Copland's rubber-edged RC-102A remote caters for its CD player and, for the CSA100, offers standby, volume plus input selection



## T+A HA 200

Close on the heels of T+A's flagship Solitaire P headphone comes this appropriately luxurious partner combining familiar digital tech with a Class A headphone amplifier

Review: **Andrew Everard** Lab: **Paul Miller**

**W**ell, it seems everyone's doing it, so why shouldn't German high-end company T+A have its own headphone system? Hot on the heels of its first headphone offering, the Solitaire P planar magnetic design [HFN Jun '20], T+A also has a matching headphone amplifier, the HA 200 – and here it is. Even by the standards of some of the headphone exotica out there, the Solitaire P/HA 200 duo is pitched unashamedly high: the 'phones will set you back £4800, and this headphone amp £6600 in either black or silver finishes, making the whole system the thick end of £11,500. So you're going to have to be pretty serious about your headphone listening to consider it.

However, though the price may be high, as is usual with the Herford brand's products it's not hard to see where all the money has gone. Like the headphones (and just about every other T+A component we've encountered) the HA 200's finish is exquisite, thanks to high-quality materials and painstaking hand-assembly.

At just 32cm wide and 10cm tall it may be smaller than some of the behemoths we've seen from the brand, but it still has the same 'carved from solid' feel about it, not least due to the thick alloy front panel – which is literally machined from billet – and the use of the same material for all the other panels. Even the side panels, which form the heatsinks, are extruded from aluminium, meaning this relatively compact unit still weighs a healthy 6.5kg.

### UNIVERSAL APPEAL

While it was launched alongside the Solitaire P 'phones, with which it is obviously matched, this is by no means a dedicated unit so will appeal to a wide range of 'head-fi enthusiasts'. Catering to every flavour, output is available on a

standard 6.35mm socket, with balanced alternatives on a 4.4mm 'Pentaconn' socket and a four-pin XLR. Each output has its own selector button beside it – so you could have headphones connected to all three at the same time if you wanted (though only two should be switched on at once) – while the menu system allows one of six impedance settings to be chosen for each output: 8, 12, 18, 25, 40 or 80ohm [see PM's boxout, p63].

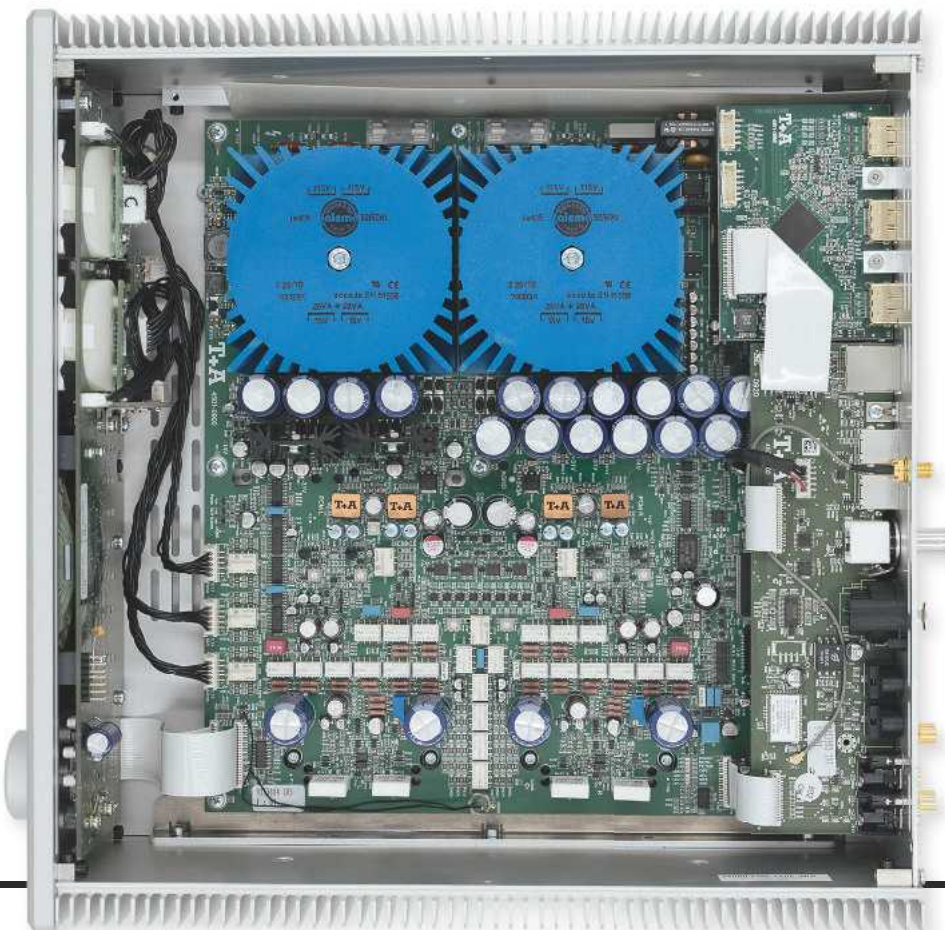
While the HA 200 has both analogue and digital inputs, the former on both RCAs and balanced XLRs, and includes a DAC (or DACs), it doesn't have any form of analogue output beyond its headphone sockets. So the HA 200 won't double as a DAC/preamp in a conventional system – the high-quality Class A output is a dedicated headphone preamp only. Quite

why there's no line/preamp output is not clear, though perhaps there simply wasn't space on the rear panel. In addition to the analogue ins, there are two S/PDIF coaxial and optical inputs, AES/EBU and BNC ins, an asynchronous USB-B port for computer connection, plus a Bluetooth antenna.

### FORMATS 'N' FILTERS

Beyond that there are more sockets that look familiar but aren't quite what they seem. The second USB-B and an RJ45 Ethernet-style port are included, T+A says, for the connection of 'future devices', while two more RJ45s labelled for the company's E2 Link system perform the same function. A USB-A socket is provided, but this will not take audio from a pen drive – it's for USB charging only and most notably for the supplied FM8 remote [see p65]. A two-in/

**RIGHT:** Class A headphone amp [bottom] is fed from a separately regulated PSU [above]. T+A's 'True 1-Bit DSD converter' matrix [centre] is separated from the four PCM DACs capped with small copper-coloured 'T+A' heatsinks





one-out HDMI board is also available as a £480 option, allowing TV/video sound (LPCM stereo only) to be fed to the HA 200 while the video signal is passed to a screen.

The USB-B socket will accept a wide range of file formats, up to 768kHz/32-bit and DSD1024 when used with a Windows computer loaded with T+A's driver. Mac users are limited to a maximum of DSD256. In common with other high-end T+A digital products, the HA 200 uses separate signal paths for LPCM and DSD datastreams. The former uses what the company describes as a 'Double-Differential Quadruple-Converter with four 32-bit Sigma-Delta converters per channel', while the latter uses the company's proprietary 'True-1-bit DSD converter', which handles the single-bit signal in native form, all the way up to DSD1024's 49.2MHz sampling frequency.

T+A's four tried-and-tested digital filter settings are available here in addition to

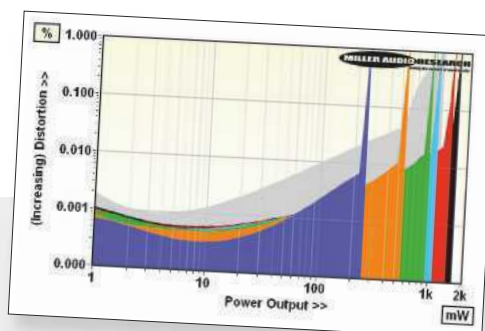
two new NOS (No Oversampling) types [see PM's Lab Report, p65]. The two linear-phase FIR types are the 'classic' filters of choice while the two Bezier types – a T+A staple – are interpolative filters. The combined Bezier/IIR filter is a minimum

phase type with very little pre-ringing while the pure Bezier option has almost no pre- or post-ringing but has an early treble roll-off with CD/48kHz media. As is often the case, I spent an unfeasible amount of time playing with these

settings before concluding that there was no one 'sweet spot' fits-all option. Hours of fun, for those so inclined, lies ahead...

And there are more options to explore, including a bandwidth setting that lets you

*'Ella's 1956 live evening set swept us up into the atmosphere'*



## CUSTOM DRIVE

With no preamp/line output, the HA 200 really is a dedicated 'headphone driver' offering a number of very specialised settings to cater for the needs of enthusiasts owning multiple headphones. These include 8ohm, 12ohm, 18ohm, 25ohm, 40ohm and 80ohm source impedance settings, and 'Minimum', 'Low', 'Medium' and 'High' loudness level settings, none of which have any impact on the overall gain of the HA 200 (+14.1dB, balanced in/SE out). The loudness level settings do not influence maximum power output either, although the impedance settings absolutely do... In practice, maximum output is achieved via the '8R' setting at 1.65W/32ohm and 1.16W/8ohm [see inset graph – 8R (black into 32ohm; grey into 8ohm), 12R (red, 1.46W/32ohm), 18R (cyan, 1.09W), 25R (green, 0.95W), 40R (orange, 0.56W) and 80R (blue, 0.26W/32ohm)].

The impedance settings amount to 8.5ohm (8R), 11.2ohm (12R), 18.1ohm (18R), 22.5ohm (25R), 40ohm (40R) and 77ohm (80R), and all are 'flat' to within  $\pm 0.4\text{ohm}$  over a 20Hz-100kHz frequency range. So, while the HA 200's power output holds up well enough into 8ohm, there's still a 6dB signal loss (or 2dB into 32ohm) with similar swings in system response expected from low and irregular headphone impedances. Consequently I would not put the HA 200 forward as ideally suited to *variable* low impedance (sub-16ohm) 'phones/ear buds. Constant impedance (planar magnetic) headphones are favoured. PM

**ABOVE:** Yes, it's only a headphone amp, but you'd never guess it from the busy front panel! Three outputs – two balanced, and 6.35mm unbalanced – can be accessed individually, while the buttons below the display select the inputs

switch between a 60kHz low-pass response and a 120kHz 'wide' option, the latter said to give 'a more spatial music reproduction'. The HA 200 also has balance, bass and treble controls, along with a variable loudness setting for use when listening at low levels. And if all that isn't enough to fiddle with, there's also a crossfeed facility, which bleeds signal between the two channels for a more speaker-like sense of stereo imaging. Again, you and your headphones will be the judge of this.

Finally, those two VU meters on the fascia – programmable for colour and brightness – can be configured to show input or output level, the temperature of the device and the output stages, or the quality of the incoming digital signal. All fascinating stuff, but the meters can also be turned off. Fortunately...



## GREAT AWAKENING

Given that the HA 200 utilises T+A's HV (High Voltage) technology, and packs separate power supplies for the digital and analogue sections, all the way back to twin transformers, it's hardly surprising that this amp seems capable of driving just about any headphones with almost disdainful ease. I was lucky enough to have the 'matching' planar magnetic headphones to hand for testing – the two making a truly prodigious pairing – as well as another pair of headphones using the same technology, Oppo's PM-1 [HFN Jul '14], the P9 Signature from Bowers & Wilkins [HFN Mar '17], and Focal's Clear model [HFN Mar '18].

A range of designs and technologies, then, from the closed-back P9s to the wide-open Clears and the two planar magnetic designs, but what was quickly apparent was the ability of the HA 200 to grab hold of a pair of headphones and drive them in an entirely convincing manner, both using conventional unbalanced connections ➔





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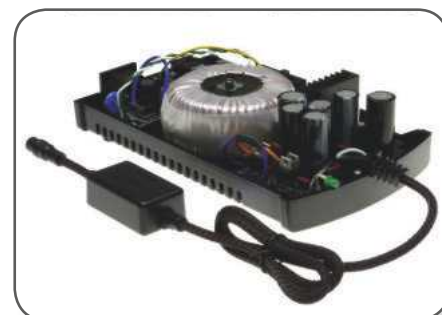
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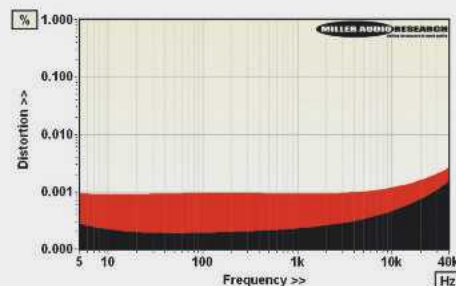
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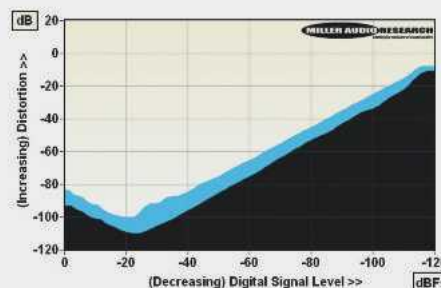
## T+A HA 200

Limited specs for the HA 200 are provided, but do not include its power output. The short answer to this question is 1650mW/32ohm (single-ended) while the fuller answer, including how power is influenced by the HA 200's impedance settings, is provided in my boxout [p63]. Freq. response is also influenced by both the variable impedance of the attached headphone and the HA 200's output setting – its '8R' output giving the flattest result in the 'real world'. Into a uniform 32ohm load the analogue in/out response is flat to within  $\pm 0.01$ dB from 5Hz-20kHz, falling by merely -0.26dB/100kHz although the bandwidth and HF 'shape' is entirely influenced by the incoming sample rate and choice of filter when the HA 200 is utilised with digital sources.

Specifically, with 48kHz, 96kHz and 192kHz inputs, the response limits up to 20kHz, 45kHz and 90kHz are -0.2dB, -1.5dB and -4.0dB (FIR Long); -3.7dB, -2.9dB and -4.0dB (FIR Short); -2.3dB, -3.0dB and -7.7dB (Bezier/IIR); -4.6dB, -5.6dB and -7.7dB (Bezier); -3.6dB, -5.9dB and -13.2dB (NOS 1); and -3.3dB, -4.0dB and -5.9dB (NOS 2). The FIR filters offer the best alias rejection (102dB for FIR Long) but have the greatest time domain 'ringing'; the NOS options suffer no ringing but digital aliasing is suppressed only by the output analogue filter. If you are tempted by NOS filters, I would recommend 96kHz, 192kHz or DXD files rather than CD/48kHz. In keeping with T+A tradition, analogue in/out distortion is a very low 0.0002-0.0007% (20Hz-20kHz), increasing to merely 0.0009-0.0015% under load [see Graph 1] while residual noise is just -101dBV (8.9 $\mu$ V) – ideal for high sensitivity 'phones/buds. In digital mode, THD falls as low as 0.0003-0.001% (20Hz-20kHz) over the top 30dB of its dynamic range [Graph 2] and jitter is <20psec across all sample rates. PM



ABOVE: Distortion vs. extended frequency at 1V output into 600ohm (black) vs. 10mW/32ohm (red)



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

## HI-FI NEWS SPECIFICATIONS

Maximum output (47kohm, 1% THD)	8.261V (SE out, max. volume)
Max. power output (32/8ohm, 1% THD)	1650mW / 1160mW (8R setting)
Output Impedance (20Hz-20kHz)	8.5-77ohm (8R-80R settings)
A-wtd S/N ratio (DAC/headphone)	113.3dB / 102.3dB (re. 10mW)
Distortion (20Hz-20kHz, 0dBfs/10mW)	0.003-0.009%/0.0009-0.0015%
Freq. resp. (20Hz-20kHz/100kHz)	+0.01 to -0.01dB/-0.26dB
Digital jitter (48kHz/96kHz; 24-bit)	20psec / <10psec
Power consumption	40W (1W standby)
Dimensions (WHD) / Weight	320x100x340mm / 6.5kg



ABOVE: Digital inputs span S/PDIF (two coaxial, one BNC, two optical), AES/EBU (on XLR), USB-B for computer connection, optional £480 HDMI module for BD players, and wireless Bluetooth. Analogue inputs are on RCAs and balanced XLRs

and – where available – in balanced mode. If our review of the Solitaire P headphones noted that they were 'a good headphone waiting to become a truly great one', then listening to Dana Zemstov and Anna Fedorova's *Silhouettes* set [Channel Classics CCS 42320] in DXD through the HA 200, I couldn't help but think that moment of greatness had arrived.

It wasn't just the confident weight and delicacy of Fedorova's piano and the timbre and bite of Demstov's viola, but rather the open, spacious yet intimate acoustic captured in the recording, not to mention the obvious sympathy of the two's playing.

## OUT OF THE HEAD

Switching to the Bowers & Wilkins P9 Signature headphones brought a somewhat darker view of the music, but what was impressive was the way the HA 200 controlled what can sometimes be a slightly lush listen, creating an altogether sprightlier sound without losing any weight.

Suddenly that quality these headphones can deliver when driven very well, of a surprisingly enveloping soundscape, sometimes even with effects off when the producer has pulled a clever trick – either in opera recordings or with radio drama in particular – is fully realised.

Whether with the P9s or the more open Focal Clears, what the HA 200 is able to do is create an entirely coherent 'out of the head' soundstage.

And that's without recourse to the crossfeed control, which can

occasionally just make things a bit confused. Listening to the recently released Oslo Philharmonic/Vasily Petrenko recording of Rimsky-Korsakov's *Scheherazade* [Lawo Classics LWC 1198; DXD], the impression is one of large orchestral forces, persuasively recorded, and a free-breathing, uncompressed and hugely dynamic sound.

I've also never heard the Oppo PM-1 headphones driven so convincingly: powered by the HA 200 they take on even greater weight and precision, which serves well a recording such as Snarky Puppy's *Live At The Royal Albert Hall* set [Live Here Now; n/a cat no], with its large musical forces, tumbling rhythms and palpable audience presence. Even Ella Fitzgerald's 1956 *Live At Zardi's* set, from Qobuz [Universal/Verve 5798051; 192kHz/24-bit] sweeps the listener up in the atmosphere of the evening, the immediacy of the recording shining through.

And the jangle-pop of Sports Team's *Deep Down Happy* [Universal/Island 0872862] grabs the attention right from the off, thanks to the HA 200's mix of power and deftness, making every line of the lyrics crystal clear while allowing the music to continue its headlong rush. This may be very high-end, very serious hi-fi, but it knows how to have fun. ☺

## HI-FI NEWS VERDICT

You can quibble about what it doesn't do – I'd prefer built-in network and USB HDD playback, and analogue line outs – but what the HA 200 does, it does to sensational effect. Explore all its flexibility, wondering at the design and build, or treat all that as over-engineering, plug in a good pair of cans and let the music take you. If you take hi-fi headphone listening very seriously, you're going to love it.

Sound Quality: 88%



LEFT: The legends on T+A's rechargeable FM8 remote are not entirely intuitive but include input selection, volume and menu navigation



# Monitor Audio Bronze 100

A foundation range for two decades, MA's Bronze series goes for gold with the standmount 100  
Review: **Mark Craven** Lab: **Paul Miller**

**I**s it brave to label a loudspeaker series 'Bronze', with the implication that its models are worse than second-best? Monitor Audio doesn't seem to think so, and has been using its precious metal hierarchy long enough for its Bronze lineup to now be relaunched in sixth-generation guise, five years after a previous update [*HFN* Feb '16]. The promise, as always, is of speakers that hit the price/performance sweet-spot via trickle-down driver tech, while looking good, too. Silver, Gold and Platinum are ranged above, and below you'll find the Monitor series, presumably because Copper felt like a step too far...

For this '6G' release, Monitor Audio has overhauled the entire range. This means that in addition to the £325 Bronze 100 here, there's a smaller £260 Bronze 50 bookshelf and two floorstanding models – the £570 Bronze 200 and £770 Bronze 500. Home theatre builders are also catered for with centre channel, surround (dubbed 'FX') and Dolby Atmos speakers, plus an active subwoofer.

## TO SIT OR STAND?

Monitor Audio describes the Bronze 100 as a bookshelf/standmount model, but its actual size might make it a little tricky to use as the former. At approximately 380x230x325mm (hwd), this loudspeaker isn't one that you can place *anywhere* comfortably. Standmounting makes more sense, but note that Monitor Audio doesn't make a Bronze-specific option, and that its Stand model – designed primarily to partner its Gold 100 speakers – sells for £350 per pair.

The speakers' detailed manual gives recommended placement as between 15cm and 30cm from the rear wall, at least three feet from side walls, and 1.8m to 3m apart to create an equilateral triangle

with your listening position. Accepting that these optimal conditions might not be a possibility for every Bronze 100 end user, particularly regards rear wall proximity, Monitor Audio provides a pair of foam bungs to plug the speakers' HiVe II reflex ports. The latter are a long-running brand speciality, first introduced in 2006, and are both rifled and flared to reduce turbulence. A key difference over the previous Bronze 2 standmount – these speakers' closest relation – is that the reflex port is now rear- rather than front-facing.

Accounting for the Bronze 100s' girth is their star attraction, a 200mm bass/mid driver. This is the same unit used on the range-topping Bronze 500 floorstander, and an unusual find in a market dominated by 135mm and 165mm units – indeed, the aforementioned Bronze 2 used a 165mm bass/mid. Made from Monitor Audio's bespoke C-CAM composite it also debuts Damped Concentric Mode (DCM)

technology here, an FEA-optimised architecture of the driver cone and surround said to further improve linearity and combat breakup modes. C-CAM is used again for the Bronze 100s' 'Gold Dome' high-frequency

drivers [see PM's boxout, p67], as it is on the step-up Silver series [AMT tweeters are preferred for Monitor Audio's Gold and Platinum models – see *HFN* Aug '19].

A new refinement here is the Uniform Dispersion Waveguide, which aims to better control off-axis dispersion from the slightly recessed dome tweeter and fine-tune time alignment with the bass/mid.

*'There's a  
crunch and  
drive here that's  
hard to believe'*



Furthermore, it also allows for a lower crossover frequency – 2.2kHz, rather than the 2.4kHz of the sixth-generation Bronze 50 or the 3.1kHz of the older Bronze 2.

## HIP TO BE SQUARE

Despite the affordable price tag, there's nothing 'budget' feeling about these cabinets. Chunky, gold-plated binding posts support bi-wiring, and while there are right angles wherever you look (which makes the rounded magnetic cloth grilles a bit incongruous), it's a handsome, modern aesthetic and arguably more appealing than the slightly rounded edges of the Bronze 5G models. Build quality is solid, without ever reaching premium levels.

The speakers weigh 7.8kg each and use 15mm MDF enclosures internally braced to limit vibration, with additional rigidity coming from the bass/mid driver installation itself, which sees it anchored via a large bolt that connects to the rear [p69]. This system also works to decouple the driver from the front baffle. A head on the back is provided to tighten the bolt fixing via a provided Allen key, as Monitor Audio suggests it may 'become loose over



**LEFT:** Available in Black, White, Walnut and 'Urban Grey' finishes, the Bronze 100 hosts a 200mm C-CAM bass/mid driver and 25mm C-CAM 'Gold' dome tweeter with 'UD Waveguide'

light grey (White, Urban Grey). The silver mid/bass drivers and gold-coloured tweeters bring a level of visual charm that many other speakers around this price lack.

### TON UP

Worthwhile successors to the highly-rated Bronze 2s, the Bronze 100s provide a level of enjoyment that's over and above their down-to-earth asking price. While the 200mm bass/mid

drivers catch your eye (and ear), there's a thrillingly unfettered

treble here that adds sparkle and openness to recordings, joined by a midband performance that's expressive and nicely attacking. Lively and energetic, these are value for money personified.

Of course, they're not a genuine 'budget' model, while some consideration when it comes

time'. Protecting the 25mm dome tweeter is a grille with an acoustically transparent 'hexagonal dispersion pattern'. Flush to the baffle, rather than gently protruding as before, this adds yet another slice of contemporary appeal.

Finish options are more varied than usual, with Black, White, Walnut and a new, on-trend Urban Grey to choose from. There's a two-tone approach to the styling too, with the front dressed in either satin dark grey (for Black and Walnut) or satin

## CUSTOM DRIVERS

Whether you choose the light or dark grey baffle, the glint of MA's gold-coloured 25mm C-CAM tweeter is always visible through those honeycomb perforations in its protective cover. This forms part of the 'Uniform Dispersion' (UD) waveguide, acting like a sophisticated phase plug. At the heart of these Ceramic-Coated Aluminium Magnesium drivers – tweeter and bass/mid – is an alloy core, chosen for lightness and stiffness, to which is applied the ceramic material to further enhance rigidity without significant weight increases. The dome tweeter boasts an especially wide response for an entry-level loudspeaker but, as we saw with the Bronze 2 model [HFN Feb '16], while its first break-up mode is deferred to a high 29kHz, the resonance is unmistakable [see p69]. PM

to both placement and port use reaps rewards. Mounting the Bronze 100s on a stand and giving them room to breathe results in a performance at its most refined, with an even handling of bass notes providing a strong foundation. Place them on a cabinet close to a rear wall, and while they certainly acquire more bass energy, they lose a little composure.

With Queen's 'These Are The Days Of Our Lives' [Innuendo; Parlophone CDP 79 5887 2], there's a bump to John Deacon's basslines that makes them sound voluminous and unduly dominant when speakers and rear wall are ignoring social distancing guidelines. Thankfully, the supplied port bungs temper this effectively and reveal more subtlety and inflection to his playing, meaning the Bronze 100s can be put to work in close quarters if required.

And as befits affordable loudspeakers, these are eager to please and easily driven, despite the medium sensitivity [see PM's Lab Report, p69]. Even paired with a budget – and modestly powered – Marantz NR1710 receiver, they sparked into life and delivered an upbeat performance.

This Queen track also enabled the Bronze 100s to flaunt their imaging ability. With the speakers set about 2m apart and toed in so that their sides receded from view, the various conga-drum hits were precisely located within the soundstage, just as Brian May's lead guitar playing deftly hung in the middle. Even those listening off-axis will enjoy the wide throw of Monitor Audio's C-CAM tweeters.

## DEPTH CHARGE

Some may prefer the extra boost to the low-end that boundary positioning brings, but in truth MA's newly-designed bass/mid driver and the sizeable cabinet that

surrounds it don't require assistance when it comes to adding weight and scale to rich-sounding tracks. Black Sabbath's 'God Is Dead?' [13; Vertigo 3735426] is mixed to be cavernous, and that's exactly the effect here, with Tony Iommi's

ominous intro riding a wave of bass and percussion that seemed to flood my listening room. As the track progresses, and overdriven guitars join the affray, there's a crunch and drive that is hard to believe is created from these affordable ➔







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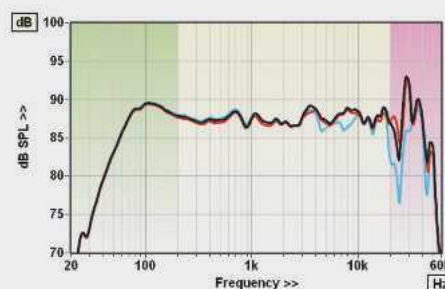
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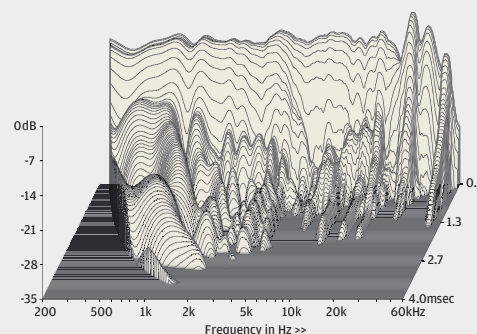
### MONITOR AUDIO BRONZE 100

Despite the Bronze 100's compact dimensions the specified 87dB sensitivity is not overly optimistic, the newcomer achieving a mean sensitivity of 87.7dB (500Hz-8kHz) without recourse to an evil impedance trend. MA quotes a minimum of 4.5ohm and this was proved on test with 4.6ohm occurring at 37Hz, close to the Helmholtz resonance of the reflex port, and again at 160Hz where, in both cases, the attendant swings in phase are within  $\pm 15^\circ$ . The highest phase angles are also experienced at low frequencies but  $-49^\circ/86\text{Hz}$  and  $+45^\circ/63\text{Hz}$  are accompanied by a reasonably benign 11ohm load, so a 6ohm nominal impedance is wholly justified here. The Bronze 100 will be an easy enough drive for most competent budget amplifiers.

Measured on MA's preferred axis (between bass and treble drivers), the response trend is flat to within an impressive  $\pm 1.6\text{dB}$  (200Hz-20kHz) while pair matching between the two speakers was better than 1dB over the same span [see Graph 1, below]. Fitting the grille [blue trace] causes a small loss in presence/treble output while the small notch at 900Hz corresponds with a resonance detected from the port and also seen, along with minor driver modes at 3-4kHz and 10-20kHz, on the CSD waterfall [Graph 2]. The 'C-CAM Gold Dome' tweeter resonance occurs at 28.6kHz/+5dB [within the pink ultrasonic band of Graph 1] but the CSD [Graph 2] indicates this is swiftly quelled. Diffraction-corrected summed nearfield measurements [green area, Graph 1] show the bass falls away below 80Hz, following a +2dB lift from 90-140Hz, although the 51Hz extension ( $-6\text{dB}$  re. 200Hz) will be further improved by near-wall siting. 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 within bass/mid driver at ~3-4kHz are mild but complex. Note 29kHz dome breakup

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V - 1kHz/Mean/IEC)	87.7dB / 87.6dB / 85.2dB
Impedance modulus: minimum & maximum (20Hz-20kHz)	4.6ohm @ 37Hz 28.4ohm @ 75Hz
Impedance phase: minimum & maximum (20Hz-20kHz)	$-49^\circ$ @ 86Hz $45^\circ$ @ 63Hz
Pair matching/Resp. error (200Hz-20kHz)	0.9dB / $\pm 1.8\text{dB}/\pm 1.6\text{dB}$
LF/HF extension ( $-6\text{dB}$ ref 200Hz/10kHz)	51Hz / 23.9kHz/43.8kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.3% / 0.45% / 0.3%
Dimensions (HWD) / Weight (each)	376x231x325mm / 7.8kg

**LEFT: Bronze 100's two-way (2.2kHz) crossover is split with two sets of gold-plated terminals for bi-wiring/bi-amping. Note rifled 'HiVe II' port and bracing bolt for bass driver**

of bright and not too ponderous. There's a crisp edge to the vocal harmonies that's enticing rather than fatiguing, yet other elements of the mix are silky smooth.

Likewise, with music that's more about aggression and drive, such as The Stone Roses' bluesy 'Driving South' [Second Coming; Geffen Records 24503], the Bronze 100s' low frequency control and energetic approach fits the bill, a mixture of cohesion and devil-may-care attitude. Voicing here doesn't obviously favour one genre over another, or put emphasis

on recording quality - which in this market is how it should be. So it would be churlish to make too much of these speakers' deficiencies when the asking price is so appetising and the appearance so attractive.

Mostly, they get so much right that it's impossible not to see them as a bargain. Bronze may not be the most precious of metals, but there are precious few £325 speakers that offer this all-round appeal. Blending sonic charm with statement styling, they're fit for a podium finish. ☺

### HI-FI NEWS VERDICT

Five years after the Bronze 2 set budget buyers' tongues wagging, Monitor Audio has released a replacement that aims for even bigger and better things. Admirable performers whatever you throw at them, the Bronze 100s are always fun to listen to thanks to their killer combination of bass weight and delectable highs, while the contemporary aesthetic and easy-to-drive nature will find them plenty of fans.

Sound Quality: 85%



enclosures. OK, to call them compact would be a misnomer, but the Bronze 100s remain small enough to be acceptable in a variety of environments without sounding boxed in or apologetic.

### MOOD MUSIC

Frankly, there's little here not to like, beyond a tendency for some male vocals to be conveyed with a little shyness as they battle against the speakers' treble purity and low-end heft. For example, Chris Martin's plaintive verses in Coldplay's 'The Scientist' [A Rush Of Blood To The Head; Parlophone 540 5042] didn't project quite as well as the sweet-sounding piano accompaniment. But this was a rare misstep during my time with these standmounts.

As for that open treble, it's everywhere, giving air to the synth motifs and hi-hats in Patti LaBelle's disco anthem 'Stir It Up' [Beverly Hills Cop OST; MCA DMCL 1870], and the rimshot rhythms of The Bee Gees' 'How Deep Is Your Love' [Tidal download, 44kHz/16-bit].

This latter track is about as easy as I like my listening to get, and Monitor Audio's duo perfectly sets the mood, being just the right side



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# Classical Companion

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

## Mozart *The Last Three Symphonies*

Were these meant to be heard as a single entity? Does the theory survive scrutiny? **Christopher Breunig** suggests library versions both 'historically aware' and traditional

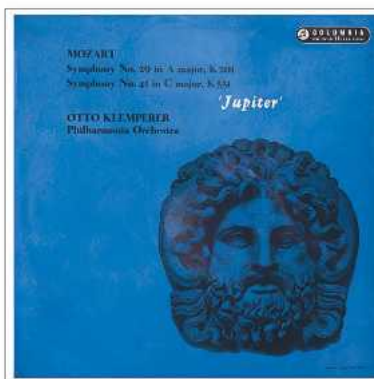
When Nikolaus Harnoncourt's Teldec recording of Schubert's 'Unfinished' Symphony appeared in 1985, his sleeve essay suggested the score was in fact a musical translation of a cathartic event from his youth, (i) concerning his mother's death, and (ii) the subsequent reconciliation with his father, and as such complete.

And with his late recording of Mozart's last three Symphonies, made with his *Concentus musicus Wien* [Sony 88843026352], he advanced another theory: that the trilogy was intended as a single entity (which he retitled an 'Instrumental Oratorium').

Mozart wrote the music over a six-week period in the summer of 1788: No 39 in E-flat (K543); No 40 in G minor (K550) and No 41 in C (K551), later called the 'Jupiter'. The intention was to present the

→ The 'Jupiter' Symphony was Otto Klemperer's first recording for EMI, made in 1954

← Wolfgang Amadeus Mozart – an unfinished portrait by the composer's brother-in-law, Joseph Lange, now in the Salzburg Mozarteum



Symphonies in subscription concerts, but there's no evidence that they were performed at all during the composer's lifetime.

In early February Iván Fischer conducted them with the OAE, with an interval break in the middle of the G minor (!), also allowing applause after every movement. Harnoncourt had argued that the start of No 39 was effectively a French-style overture, the grand contrapuntal ending to No 41 a summation, while claiming the other two works lacked 'proper' finales.

It's probable that a host of interpreters would not have even considered any of this – nor did their recordings come together necessarily.

(Karajan's EMI and two DG Berlin LP sets had all three works because he tended periodically to repeat his repertoire on disc.)

What's more interesting to the serious collector are the discography gaps for major figures – no Haitink option, for example, only a live No 38 'Prague'; no Furtwängler 'Jupiter' but a quite remarkable VPO G minor from 1948/9 [Warner Classics 9081192]. He captured perfectly the sense of disturbance

by taking the first movement at a proper *Molto allegro*. Contrast this with the dutiful exposition in Claudio Abbado's 2009 DG version with his Orchestra Mozart [477 9792].

### MISSING MAESTRI

When the Royal Festival Hall opened in 1951, two Philharmonia concerts were given. Impresario Walter Legge wanted Szell or Karajan to appear, but finally Otto Klemperer was appointed and scheduled to conduct Elgar's *Enigma Variations*. He then declined to do this, substituting Mozart's 'Jupiter' Symphony. Legge was sufficiently impressed to negotiate an EMI recording contract and this was the first work done by Klemperer, at Kingsway Hall in Oct-Nov 1954. A fine account and still available on Warner Classics [see Essential Recordings boxout]. His earlier (mono) Mozart had generally more vitality than the remakes.

Another well received EMI 'Jupiter' was made by Sir Adrian Boult and the LPO at Abbey Road in Sep/Oct '74, and (unusual for an LP recording at the time) complete with all repeats. It was last in the 11CD Warner set 'From Bach to Wagner', which may now be hard to find as it's mostly listed as 'unavailable'. And in

my Georg Solti Classical Companion [HFN Mar '20] I recommended his COE coupling of Nos 40 and 41, but now you'd need to find this as a secondhand CD.

It's the same story, alas, with Sir Colin Davis's Dresden Staatskapelle recordings. They were admirably done for Philips, in co-production with VEB, in the conductor's measured, big-orchestra style – I admired the great dignity of those early '80s readings.

'Klemperer declined to do the *Enigma Variations*'



You can, at least, download both the VPO and earlier Berlin Philharmonic versions made by Karl Böhm for DG. Slow speeds again, especially in the minuets, but a not dissimilar musical integrity.

I remember the shock of hearing Sir Charles Mackerras in his 1991 Prague/Telarc complete cycle opening No 39 in a brisk and far from measured style. And those minuets were very fast indeed. In 2007 he made new recordings for Linn with the Scottish Chamber Orchestra – no harpsichord continuo this time round – and Nos 38-41 are available in SACD format [see 'Essential Recordings' boxout].

The following year Trevor Pinnock recorded the complete Symphonies for Archiv with his English Concert [471 6662]. Reasonably priced, this is an 11CD box, but you could download the limited Nos 39-41 at 44.1kHz/16-bit for just £13 [Presto Classical] – and you'd get period instrument performances with the warmth and affection of Bruno



PHOTO: DEUTSCHE HARMONIA MUNDI

Walter – amenable tempi for those three *Allegretto* minuets too...

As to Walter himself, his 'Indian Summer' set of Mozart's last six Symphonies with the hand-picked Columbia SO (we once had lovely LP pressings) Sony re-released at the end of last year as downloads, from MP3 up to 192kHz/24-bit resolution [G01000 40942846].

Again, it's downloads only for the 1984 Abbey Road recordings Sir Neville Marriner made for EMI with his St Martin's Academy [Warner Classics 5008362; 44.1kHz/16-bit] – you get Nos 35-41. Here, we have traditional Mozart performance but with a smallish orchestra.

From around that time EMI also recorded the complete cycle with Jeffrey Tate and the ECO, and with the Warner reissues it's all or nothing: 12CDs/CD quality

➔ An exciting new Harmonia Mundi CD of the Symphonies by the Ensemble Resonanz, directed by Riccardo Minasi

➔ The Austrian conductor Nikolaus Harnoncourt, who argued that Mozart's last three Symphonies were intended as a single work



downloads without booklet [984 6382]. I found these versions to respect rather than to enjoy.

#### GRAZED BY GRAZ

A brand new Harmonia Mundi release from Riccardo Minasi and the Ensemble Resonanz [HMM90262630] suggests you can have your cake and eat it. That is to say, while 'historically aware', the performances are thrillingly dramatic with a feeling of fresh discovery. The sound from a Hamburg studio has matching immediacy.

Readers interested in the early history of recordings of these three works should read Peter Gutmann's analysis at [www.classicalnotes.net](http://www.classicalnotes.net), where Sir Thomas Beecham, he

says, sits in the 'pantheon of Mozart advocates' especially with his prewar London Philharmonic Orchestra 78s.

And what of that Harnoncourt 'Instrumental Oratorium'? Well, at the time of writing you could see the whole thing on the Internet, from a 2014 Graz concert, where he dives straight into No 40 just as No 39 ends and creates (as on the Sony CDs) a grating, driven sound with eccentric rallentandos to make things even more ungainly.

There was an earlier period, when he did these works with the COE, and that was a less extreme, very finely played set – fortunately, it is still current [see below]. As are his Amsterdam Concertgebouw recordings from 1982/83. ☺

## ESSENTIAL RECORDINGS

### Symphonies Nos 38-41

Warner Classics 2564 63067-2 (2CDs + bonus) Harnoncourt recorded in his prime with the COE in Vienna, 1991. Fast minuets though, which some will dislike. A COE Anniversary set with 15 excerpts from other works as a bonus.

### Symphonies Nos 39-41

Linn Records CKD308 (two SACDs) Sir Charles Mackerras and the SCO. Also available at 88.2kHz/24-bit resolution.

### Symphonies, Overtures and Serenades

Warner Classics 4043612 (eight discs) Klemperer with the NPO/Philharmonia; it is good to see the earlier monos and stereo remakes of Nos 39-41 are reissued here.

### Symphonies Nos 40 and 41

DG 413 5472 Karl Böhm's VPO recordings: short on repeats, slowish speeds. CD-quality download only.

### Symphonies Nos 40 and 41

DG 478 3621 Bernstein and the VPO, Musikverein 1984. Symphony No 39 can be seen as a video from 1981 – with the Piano Concerto K453, directed from the keyboard [EuroArts 2072098].

### Symphonies Nos 40 and 41

Decca UCCD-7218 Karajan's two VPO recordings from 1959/62 are currently available as a Japanese import (and reasonably priced on Amazon UK).



# Vinyl Release

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

## The Rolling Stones *It's Only Rock 'N' Roll*

Their 1974 riposte to criticism, which **Steve Sutherland** finds a mixture of downright goodies with a sprinkling of duds is remastered on 180g vinyl from pure analogue

**T**he Rolling Stones have just released their first original track for eight years. 'Living In A Ghost Town', started some time ago when the band could convene together in a swanky recording studio and hastily rounded off with isolated overdubs. It's getting a bit of a pasting from the online community who are having a lot of fun mocking Mick Jagger and Co for moaning about being stuck at home when they live in mansions with acres of land, hot tubs and snooker rooms, etc.

### FUMBLING IN A FUDDLE

It doesn't help that it shares part of its title with The Specials' astonishing 'Ghost Town', a timely classic back in the recession-hit early '80s. The Stones' chug-a-lug doesn't come out of the comparison awfully well. To add somewhat of an insult to injury, 'Living In A Ghost Town' comes limping on the heels of a split-screen online performance of 'You Can't Always Get What You Want' from 1969's stunning *Let It Bleed*. Part of Global Citizen's *One*

*World: Together At Home Coronavirus Relief Concert*, the new take on the song finds Jagger grooving energetically on an acoustic in his front room and Ronnie Wood adding tasty licks from his hallway.

So far so OK. But then there's Keith Richards, fumbling about in a bit of a fuddle, contributing barely anything, seemingly not exactly sure what he's supposed to be doing. And worse, Charlie Watts cheerfully air-drumming in his study, despite the fact that we can clearly hear a solid rhythm section, presumably a pre-recorded backing track. It all feels a bit false and fake.

Not that batting away slings and arrows and the like is anything novel for The Rolling Stones. Ever since their legendary late '60s/early '70s run of *Beggar's Banquet*, *Let It Bleed*, *Sticky Fingers* and *Exile On Main Street*, they've been accused of being shadows of their former selves, sell-outs, nowhere near as good or relevant as they used to be.

"I was getting tired of 'it's not as good as their last one'"

### 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...



Which, let's face it, is in all probability true – not that the band took it lying down.

### THE WAY DOWN

In 1974 they released a song, and an LP titled after it, that attempted to shrug off the critics with characteristic arrogance and disdain. 'It's Only Rock 'N' Roll (But I Like It)' was authored in direct response to the kicking dishd out to 1973's *Goats*

*Head Soup* which critic Lester Bangs had greeted with these words in *Creem*: 'There is a sadness about The Stones now, because they amount to such an enormous "So what?".'

With the benefit of retrospect, it's easy to see

now that, after *Exile On Main Street*, The Stones did begin a slide from innovation and revolution into decadence and rock star excess. Richards was deep into being a junkie, Jagger had become a high society jet-setter and, as one critic succinctly put it, their image began to eclipse their accomplishments. At the time, though, their skins weren't so tough and leathery as now and the criticisms hurt. *It's Only Rock 'N' Roll* was their riposte.

'The idea of the song has to do with our public persona at the time', Mick wrote in the sleeve notes to the 1993 compilation, *Jump Back*. 'I was getting a bit tired of people having a go, all that,

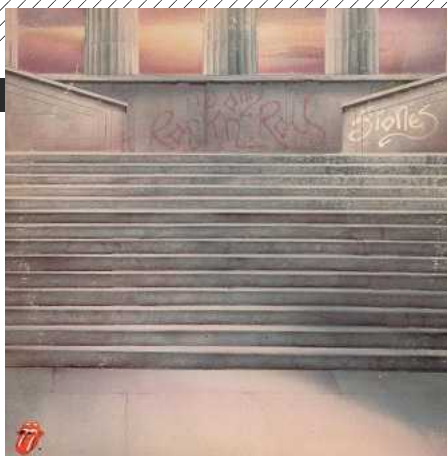
"Oh, it's not as good as their last one" business.

'The single sleeve had a picture of me with a pen digging into me as if it were a sword. It was a lighthearted, anti-journalistic sort of thing.' (The lyric went, 'If I could stick my pen in my



➔ Ronnie Wood, Keith Richards, Mick Jagger and Charlie Watts at the Rolling Stones Exhibitionism in New York City in 2016 and [inset] the new lockdown release





➔ Priced £17.99, the 180g vinyl reissue of *It's Only Rock 'N' Roll* is available to order online at <https://shop.abbeyroad.com/vinyl>

heart/ And spill it all over the stage/ Would it satisfy ya?/ Would it slide on by ya?/ Would you think the boy is strange?'.) And it was, in fact, the best thing they'd done in ages, which was not that surprising when we eventually discovered that it was recorded entirely separately from the rest of the album. Oh, and it wasn't actually The Rolling Stones *per se* who played on it.

### TAKING THE CREDIT

The basic rhythm track had been laid down one night in a studio at future Stone Ronnie Wood's house, The Wick, in Richmond, SW London. The Faces' Kenney Jones played drums, his bandmate Wood played rhythm guitar, David Bowie provided backing vocals to Jagger's lead and session player Willie Weeks played bass.

Jagger liked the outcome so much he snaffled the tape and brought it back to Richards, who added a few guitar overdubs. They then polished it up under their new production pseudonym, The Glimmer Twins, and, in time-honoured tradition, claimed it as their own, the publishing bearing a Jagger/Richards credit. Naughty!

Most of the rest of the album was recorded at Musicland Studios in Munich right after The Stones' 1973 European tour. Notable by his absence was their faithful producer, Jimmy Miller. 'I think we'd come to a point with Jimmy where the contribution level had dropped, because it'd got to be a habit, a way of life, for Jimmy to do one Stones album a year,' Richards explained.

'Also, Mick and I felt that we wanted to try and do it ourselves because we really felt we knew much more about techniques and recording and had our own ideas of how we wanted things to go.' Gentleman that he is, Richards failed to mention that Miller had developed a debilitating drug habit working with The Stones and had become next to useless in the studio. A fate Richards too was to encounter very soon.



By any measure, it would be a tough call to reckon *It's Only Rock 'N' Roll* among The Rolling Stones' greatest works and hard to deny that the title track's the best thing on it. There are some other notable goodies, though. 'Time Waits For No-One' is a stately piece, pinned on the metronome of Ray Cooper's percussion, beautifully embroidered by pianist Nicky Hopkins and eased along into the sunset on Mick Taylor's lovely Santana-esque solo.

'Short And Curlies' is quite a hoot too, romping along with Ian Stewart's barrelhouse piano, and 'Fingerprint File' is as funky as a mosquito's tweeter – Mick Taylor on strutting bass while Bill Wyman debuts a synthesiser and Jagger blathers on paranoiacally about being spied upon.

### ROCK DEITIES

Unfortunately, there are some right clunkers too. Opener 'If You Don't Rock Me' is raunchy Stones-by-numbers, the ballads 'Till The Next Goodbye' and 'If You Want To Be My Friend' robbed of all emotional sincerity by Mick's vocal pastiches, and the cod reggae of 'Luxury' just plain awfully wrong. The ugly version of The Temptations' mighty 'Ain't Too Proud To Beg' is embarrassingly soulless too.

Just be thankful they didn't proceed with their original plan which was to make an album split 50/50 between live tracks and covers. The recording sessions

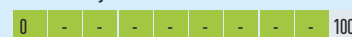
were attended by Belgian painter Guy Peelleart, whose illustrations in the book *Rock Dreams* had impressed the band. He was invited to do the album cover and he painted them as rock deities descending a temple staircase, surrounded by young girls and women worshipping them in Grecian togas – a striking image which would come to symbolise everything punk rock railed against three years later...

*It's Only Rock 'N' Roll* briefly topped the American album charts and got to No 2 in the UK – their first album not to reach the top since 1968's *Beggars Banquet*. ☺

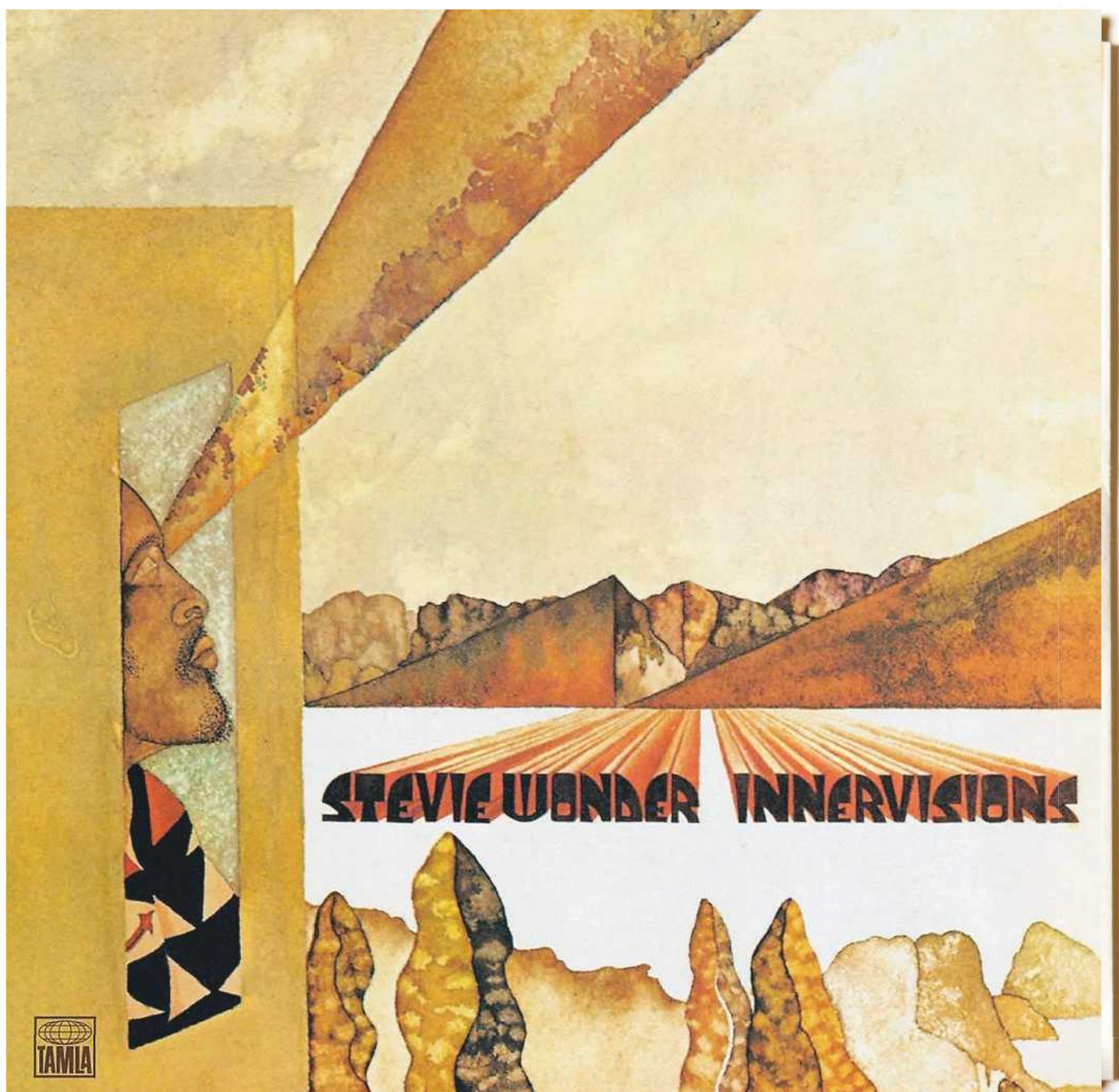
### RE-RELEASE VERDICT

First released as an LP on The Rolling Stones label [COC59103], and reissued in 1989 with a cassette option [450202 4], this is one in a series of ten Rolling Stones albums – spanning from the 1970s to the 1990s – which have all been remastered at Abbey Road Studios at half-speed using 'vinyl-specific' (sic) original tapes. Pressings are on 180g black vinyl and reissued by Polydor/Universal Music Group International. Audiophile CDs will also appear alongside the vinyl. *HFN*

Sound Quality: 90%





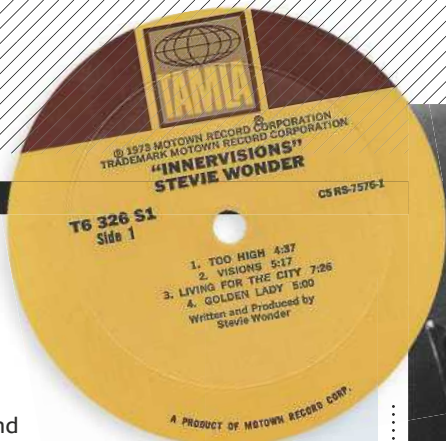


# Stevie Wonder *Innervisions*

Released in 1973, the singer's 16th album marked his transition from child star to a musically mature performer able to grapple with the social issues of the day and make sense of them for an audience wedded to pop. And he was just 22 years old...

Words: **Mike Barnes**





**S**tevie Wonder's 1973 album *Innervisions* is widely regarded as one of his best and has featured prominently in magazine polls of the greatest albums of all time. But apart from all the plaudits, it's astonishing that it was his 16th studio album and was released shortly after he had turned 23. At that point the man born Stevland Judkins had already been in the music business for a decade – his single 'Fingertips' had topped both the *Billboard* Hot 100 pop singles and the R&B singles charts when he was just 13 years old.

It was followed by a relatively fallow commercial period and, with his voice changing with age, his record label, Motown, was wondering whether his child-star popularity might fizzle out, and there was talk about cancelling his contract. But when he reached 15 he enjoyed a resurgence, co-writing the hit single 'Uptight (Everything's Alright)'. Then, in 1970 his first self-penned hit 'Signed, Sealed Delivered I'm Yours' reached No 1 in the R&B charts and No 3 in *Billboard's* charts.

## NEW SOUNDS

But Stevie Wonder's horizons were expanding fast and the following year he was investigating a new album, *Zero Time*, by Tonto's Expanding Headband, the duo of Malcolm Cecil and Robert Margouleff, who played on a custom-built synthesiser set-up they called TONTO, an acronym for 'The Original New Timbral Orchestra'. It was in constant development and based on a Moog modular Series III with added ARP and Oberheim synthesisers.

Wonder was interested in exploring the new sounds of these instruments and was introduced to Cecil in New York in 1971. Together with Margouleff they struck up a working relationship, recording *Music Of My Mind* (released in early 1972) and *Talking Book* (issued later that year) with Cecil and Margouleff as co-producers, Moog and ARP programmers.

At this point, having reached the age of 21, Wonder was

↑ Tamla's label for Side One of original US LP

↗ Stevie Wonder is pictured performing in 1973

↘ Malcolm Cecil stands by the Moog booth at the 2015 NAMM Show

↓ Wonder in the 1960s by New York photographer James J Kriegsmann



released from his contract with the Tamla Motown label. While he waited for it to be renegotiated, he used the trust fund that the company had set up for him to finance some early recordings.

Into the new decade he was becoming prolific and engaging with more serious subjects. Cecil recalls that when *Innervisions* was being formulated they discussed a wide range of topics including George

Orwell, economics, war and peace, and Eastern philosophy.

He remembers trying to encourage Wonder to write about

social issues. 'We had a friendly challenge going on in the studio,' Cecil told US music magazine *Wax Poetics* in 2013. 'We pushed each other to be better. It was a healthy competition. We were building something together.'

Wonder embraced this new role and Margouleff remembers him seeming like a 'messenger' during this time. The optimism of the '60s was still prevalent, but with the '70s came the knowledge that the peace

and love tenets of the previous decade were now in shorter supply.

## VISIONARY WONDER

As an African American musician Wonder absorbed Marvin Gaye's disquieted musings on American society on his 1971 album *What's Going On?* while, at the behest of Stax Records, Isaac Hayes was

portrayed on the fold-out cover of his *Black Moses* album in pseudo-biblical attire – complete with shades – as a leader of people and a focal point for black emancipation. But as

a committed Christian, Hayes later felt that the whole business was rather 'sacriligious'.

Judging another album by its cover, Efram Wolff's artwork for *Innervisions* depicts Wonder sitting at a window with rays or beams ☞

'Wonder was encouraged to explore social issues'

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## VINYL ICONS

### PRODUCTION NOTES

*Innervisions* was recorded over a year from April 1972 at the Record Plant studios in LA, where Malcolm Cecil and Robert Margouleff were working full time, and at Medisaound, New York City. On the record they are credited as 'associate producers' together with Stevie Wonder. Wonder would tend to turn up when he felt like it, often at night, but in any downtime they would work on library music or make test tracks.

Cecil read Wonder's lyrics half a line ahead to him as a prompt during some takes. Initially there was headphone leakage such that Cecil's voice was picked up by Wonder's microphone. Packing Styrofoam cups with sponge rubber and fixing them on the outside of Wonder's headphones helped, but Cecil's cues remain audible in a couple of places on the record where it wasn't possible to mix them out.

The tracks were put together in a variety of ways. 'Visions' – with Cecil on double-bass, Dean Parks on acoustic guitar and David T Walker on electric guitar – was basically recorded live in the studio. On other songs, like 'Too High', a keyboard (in this case a Fender Rhodes) was laid down first and a guide vocal with drums and other instruments was added later. 'Higher Ground' was recorded quickly in this way with three overdubbed clavichets the instrumental basis of the song. 'All In Love Is Fair' was pieced together over a number of months.

PHOTO: CHERYL FLEMING PHOTOGRAPHY



For 'Living For The City' an electric piano and Wonder's vocal formed the basis of the song with Moog bass added the next day. Then came the drums and five harps and more vocal overdubs, with a total of three background vocal tracks. Some were recorded with Wonder singing to a backing track that was slightly speeded up or slowed down, to make his voice sound higher or lower.



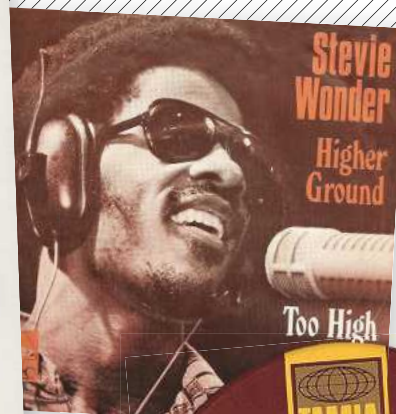
emanating from his eyes up towards the heavens, and makes the point that, although the musician was blind, he was effectively a seer and was acutely aware of what was going on in the world.

### SMOKIN' SADNESS

The way in which Wonder, Cecil and Margouleff worked together is exemplified by the opening track 'Too High'. Cecil had a jazz background and was suggesting to Wonder different ways to build chords using fourths and fifths. He was taken aback when Wonder took this chord sequence and gave it to a trio of female vocalists and made it one of the song's main hooks.

A squelchy Moog bass line contrasts with the singers' delicious lightness of touch, yet although the song seems to celebrate the female protagonist's 'crazy scene' as she smokes a joint it is in fact a cautionary tale, ending with the jarring denouement that she has overdosed and passed away. (If such a tale about someone dying from smoking a little pot seems somewhat overcooked, the 1970s was an era when hard drugs were introduced to the party, with the inevitable consequences.)

Cecil notes that love and spirituality in their various forms permeate *Innervisions* and the meditative, drumless 'Visions' with its beautiful electric and acoustic guitar playing, the unabashed love song 'Golden Lady', and the luminous Latinate 'Don't You Worry 'Bout A Thing' are brimming with positivity. But 'Jesus Children Of America' has a whiff of fire and brimstone about it and harks back



← 'Higher Ground' single sleeve and ad for the Mu-Tron III, as used on the song



← 'Living For The City' single on Tamla Motown

← Grammy Award-winning producer Bob Margouleff in his LA studio

↓ Wonder seen at California's 10th Annual Lady of Soul Awards in 2005

to the religious upbringing of his youth.

Wonder mentions Transcendental Meditation, which

he had discussed with Cecil, acknowledging that it helps give peace of mind. But his main message is that it's time to wise up and if you seek redemption in these troubled times, there is no time to waste: 'You'd better tell your story fast. And if you lie, it will come to pass'.

As well as wanting to try out synthesisers and experiment with sound, Wonder used the technology of the studio for overdubbing, and on 'Living For The City' he plays all the instruments himself – including drums. In this respect, not being a trained drummer but an exceptional musician was a bonus, as he sidestepped cliché and employed an intuitive approach, giving the rhythms some idiosyncratic shapes.

### TOUGH TALKING

Legendary British jazz-rock drummer, Jon Hiseman, commented that Wonder's drumming on *Innervisions* 'Sounds fantastic and is a great example of someone who is playing absolutely inside the music.'

'Living For The City' is also the clearest warning about the injustices of '70s America. It's a tough, funky social commentary with a ↗

'Wonder plays all the instruments himself'



PHOTO: SHUTTERSTOCK

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# Alternate Format Discography



Wonder in 1973 and [below] on stage with his Rokland Ax-Synth Keytar during the 2010 North Sea Jazz Festival at Ahoy Rotterdam

twisting instrumental chorus melody played on the TONTO synth. The song is about the plight of African Americans and follows a panoramic path across the country from a family living in poverty in Mississippi, with the parents trying to set their children on the straight and narrow. It takes us to New York and includes a brief dramatic playlet complete with sound effects, in which a hapless, disenfranchised youth falls in briefly with a crowd of drug dealers and gets framed, arrested and sentenced to jail.

Wonder returns singing the song's last verse, leaning on the phrasing and sounding hoarse and angry. He directly addresses the listener with 'I hope you hear inside my voice of sorrow/And that it motivates you to make a better tomorrow'.

But in many ways the pivotal song is 'Higher Ground'. Wonder takes the clavinet driven funk of 'Superstition' from *Talking Book* and repurposes

it into an exhilarating rallying cry to everyone, everywhere to keep on keeping on until we reach a state of transcendence. (The clavinet was an electrically amplified clavichord, produced in West Germany.)

## CHART SUCCESS

With *Innervisions* Wonder delivered a landmark record that was brilliantly written, performed, arranged and produced: a mix

of soul, funk, jazz, rock and pop that was experimental but accessible and influential, yielding four hit singles worldwide. It was uncompromisingly lyrically but in a way

that was inspirational. And although he was addressing America in the '70s its themes still resonate today. A measure of its universality is that it became the first R&B album – the category for black artists – to be named 'Album of the Year' at the Grammy Awards in 1974. ☺

**'The album's pivotal song is "Higher Ground"'**



TOM BEETZ



## ORIGINAL VINYL LP

*Innervisions* was released in August 1973 on Tamla Motown. In the UK the LP came with a black record label with silver Tamla Motown logo while some European territories had a red label. The US release has a rust red and yellow 'Tamla' logo on the label similar to the imprint's earliest vinyl LPs and singles [T326L and also T326V1]. Some early US pressings came with a bag carrying an ad for a book *The Songs Of Stevie Wonder* with lyrics and guitar chord tabs.

## TAPE FORMATS

The 1973 Ampex 8-track had a black shell [US: TAM M 8326; UK: 8X-STMA 8011]. Both the longest and shortest tracks, 'Living For The City' and 'All In Love Is Fair' were split across programmes. Another US release that year [T-326-T] saw the running order rejigged so only 'Higher Ground' was split.

Also, a cassette in a cream shell came in the US [T7-326-HC]. The UK version, on EMI/Tamla Motown arrived in both black and grey shells with white labels and a completely different running order to the LP [TC-STMA 8011].

Meanwhile, a seven-inch 7½ips, ¼in reel-to-reel tape was manufactured by Ampex for the US market, again in 1973 [TAM M 326]. It had two automatic reversing signals, functioning only with tape recorders equipped with Ampex's reversing circuitry.

## COMPACT DISC

*Innervisions'* first CD version was released in the US in 1986 [MCD09052MD] and in Japan with a cream obi strip. UK and Europe had to wait until 1987 [WD72606]. The next

significant CD was a version remastered from the original tapes, a gold-plated 1991 US release [pictured below] made in conjunction with the Mobile Fidelity Sound Lab [UDCD 554].

The next remastering took place by Kevin Reeves at Universal for a 2000 release. This included a foldout lyric insert based on the inside gatefold of the original LP [catalogue number for Europe/US: 157 355-2]. A numbered limited edition digipak was also issued [157 580-2].

In 2012 Audio Fidelity released a US limited edition 24K HDCD remastered by Kevin Gray [AFZ 086], while in 2014 a Japanese SACD came with a grey/blue obi strip [UICY-9615]. And 2018 saw the release of a



Japanese Hi-Res UHQCD with MQA encoding [UICY-40213].

## AUDIOPHILE VINYL

In Japan a 200g vinyl LP was reissued in 2006 on Tamla Motown/Universal [UIJY-9021] with original artwork and Tamla label. In 2008 in European territories there was both a reissue on 180g vinyl by the Universal 'Back To Black' series [Tamla Motown Universal 0050109032617], and another on the Russian Vinyl Lovers label [900334]. The 2012 Japanese version on clear 180g vinyl [Motown '100% Pure LP' series, UIJY-90005] commands high prices.



# Meet the Producers

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

## Phil Ramone

From Monroe to McCartney, and the soundtracks to more than a few iconic movies, this US-born producer was never afraid to use the latest cutting-edge studio technology while also never forgetting his people skills. **Steve Sutherland** on the 'Pope Of Pop'...

A few months ago I claimed in these very pages that Jeff Lynne of ELO assembling his new best buddies Paul McCartney, George Harrison and Ringo Starr to tart up the deceased John Lennon's 'Free As A Bird' home demo and release it as a Beatles single was the worst musical idea ever. Well today, dear reader, I humbly recant that claim for what follows is surely far more dreadful.

In 1993, two years before that Fabs monstrosity, Capitol Records saw fit to inflict upon the world an album called *Duets* in which Frank Sinatra, nearing the end of his illustrious career, was teamed up with lesser talents such as Bono, Barbra Streisand, Kenny G and Gloria Estefan on a series of, yup, duets of some of his best-loved tracks.

### CRITICAL HACKLES

Except that Frankie baby never actually met, engaged with or sang along in the studio with any of the chosen unlucky-for-us 13 in the process. The great man performed in isolation and the others just took the tracks, warbled along to complement his vocals and then, quite literally, phoned their takes back into the studio via a fiber optics system called EDNet.

Phil Ramone caught on camera at a Stand Up To Cancer charity event held at the Kodak Theater in Hollywood in 2008

Album sleeve and CD of the Frank Sinatra *Duets* release from 1993 and (below right) Chrissie Hynde who contributed vocals to *Duets II*



S. BURLEY/SHUTTERSTOCK.COM



Unsurprisingly, this wholly artificial exercise raised critical hackles for its lack of warmth, spontaneity, soul, you name it. But heck, Capitol should care. *Duets* debuted at No 2 on the *Billboard* charts, reached No 5 in the UK and sold over three million copies in America alone, becoming the only Frank Sinatra LP to achieve triple platinum status. Quite the biggie then, and the man behind it all was Phil Ramone.

Ramone has recalled that Sinatra was understandably reluctant about the project, eventually being flattered into it when the producer pointed out that, while classic actor Laurence Olivier had performed Shakespeare in his 20s, the

readings he did when in his 60s gave them new meaning. 'I spoke with conviction: "Don't my children and your grandchildren deserve to hear the way you're interpreting your classic songs now?"'

### TRICK OR TREAT?

Not one to miss a beat, Ramone repeated the trick, and its dodgy methodology, for the imaginatively-titled *Duets II* in 1994. It turned out to be Sinatra's final LP before his death and was, amazingly, even worse artistically than the original *Duets*, featuring Chrissie Hynde, Neil Diamond and Jimmy Buffett among other unfortunates.

Sinatra wasn't alone in getting the Ramone treatment either. Once the formula was set, others who might most sensibly have considered gracefully remaining in retirement, emerged from their mansions to give it a go. Ray Charles added to the dubious canon with *Genius Loves*



**ray charles** duets with natalie cole  
elton john norah jones b.b. king gladys knight diana krall  
michael mcdonald johnny mathis van morrison willie nelson  
bonnie raitt james taylor **genius loves company**



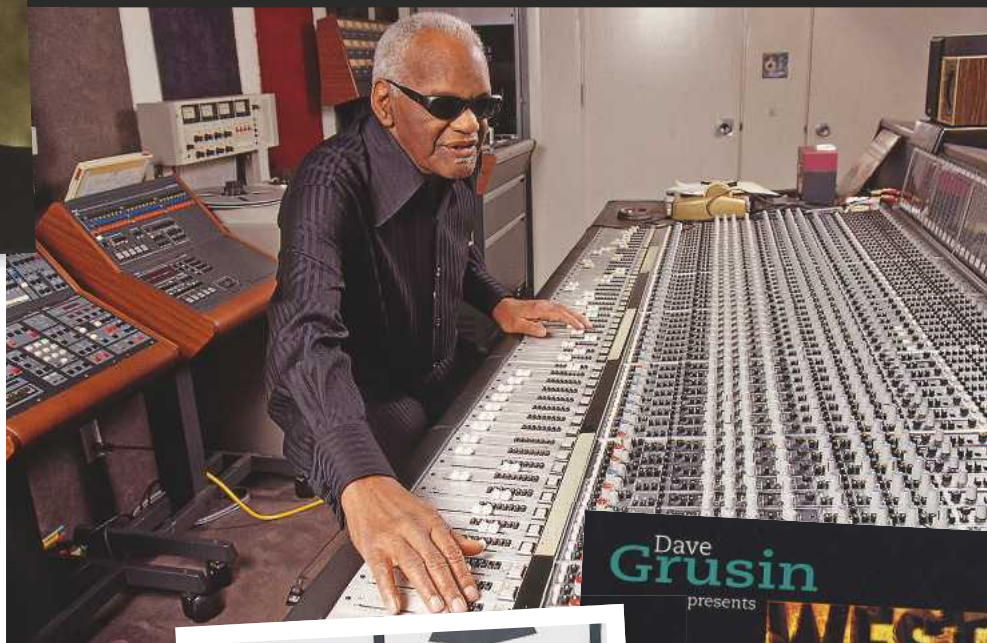
*Company* in 2004, the great man duetting with the likes of Elton John, Willie Nelson, Johnny Mathis and Van Morrison. One and all were well past their best but the album was a huge posthumous success for Charles. Co-produced by Ramone and A&R man John Buck, it was released via Concord and I Hear Music, Starbucks' label, and won eight Grammys. There was, of course, a follow-up of outtakes, 2005's *Genius & Friends*.

#### CHILD PRODIGY

Next to play ball was suave crooner Tony Bennett, who celebrated his 80th birthday with *Duets: An American Classic* in 2006. It was by far the best of the bunch, mainly because Bennett insisted on actually singing with the contributors in the studio, live, with an orchestra or band. Participants included Bono (again), Streisand (again), Elton (again), George Michael, Paul McCartney and Billy Joel (of whom – shudder! – we shall hear more later).

*An American Classic* did well enough that its very own *Duets II* emerged five years later with Lady Gaga, Mariah Carey and Michael Buble sharing the studio with the former Mr Benedetto. His duet on 'Body And Soul' with Amy Winehouse turned out to be the tragic wonder's final recording and won itself a Grammy Award for Best Pop Duo. *Viva Duets* followed in 2012, some kind of Latin American project, but the less said about that the better.

Anyway, Phil Ramone was the man who made all this happen. And tons more besides. Known as the Pope Of Pop, he'd arrived in America from South Africa as a child musical prodigy who was playing violin at the age of three and performing before our good Queen Elizabeth at ten. After a scholarship studying classical violin at the Juilliard School in the late 1940s, he established New York's independent A&R Studios in 1958 with a friend



↖ **Genius Loves Company** from 2004 and (top) Ray Charles at the mixing desk

↗ **Tony Bennett and Lady Gaga** in 2015

↗ **Dave Grusin Presents West Side Story** from 1997

↓ **Singer Amy Winehouse** in 2007



called Jack Arnold where he cut his teeth, first as an engineer of high quality demos working with the likes of Tom Dowd [HFN Nov '19], Creed Taylor, Ahmet and Nesuhi Ertegun, and songwriting duos Leiber & Stoller and Bacharach & David. He then became a producer in

his own right, moving the studio location on several occasions over the next few years, every time furnishing each with the latest innovations and upgrades in technology. This trajectory eventually led to

**'He performed before the Queen when aged just ten'**

*West Side Story*, again produced by Ramone and one of the first discs to market), hi-definition recording and surround sound.

The list of artists Ramone worked with over the years is way too long to detail here plus there are his numerous concert, film, Broadway and TV productions including the Streisand/ Kristofferson *A Star Is Born*, *Beyond The Sea* (the Bobby Darin biopic starring Kevin Spacey), *Midnight Cowboy*, *Flashdance*, *Ghostbusters* and *On Her Majesty's Secret Service*. Notable highlights of his career include engineering ➔

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# MEET THE PRODUCERS

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW



**1962**

Ramone serves as the music producer at the White House, overseeing Marilyn Monroe sing 'Happy Birthday Mr. President' to John F Kennedy



**1964**

Sessions begin on March the 18th, 1963, at Ramone's A&R Recording Studios in NY and are completed the next day. *Getz/Gilberto* wins a Grammy



**1969**

Ramone receives his first producer credit, not for an album but for his contribution to the soundtrack to *Midnight Cowboy* starring Jon Voight and Dustin Hoffman



**1971**

Formed in 1968 by Nils Lofgren, *Grin* land a record deal in 1971 and work with Ramone on a self-titled LP. A hit with critics, but fails to chart



**1971**

Most sessions for Paul McCartney's *Ram* take place at Ramone's A&R studios. Ramone engineers and helps McCartney shape the sound



**1975**

Despite Dylan deciding at the last minute to re-record five songs, Ramone's work on *Blood On The Tracks* is lauded by critics



**1975**

Ramone steps into the studio with Paul Simon for *Still Crazy After All These Years*. The album is a No 1 in the US, peaks at No 6 in the UK and wins a Grammy

the jazz samba *Getz/Gilberto* LP (for which he won his first Grammy), co-producing Bob Dylan's stunning *Blood On The Tracks* and acting as music director at John F Kennedy's famous White House party in 1962 when Marilyn Monroe sang 'Happy Birthday' to the president.

## HANDLE WITH CARE

Probably Ramone's most famous collaborations were with Paul Simon (*Still Crazy After All These Years*) and Billy Joel (*The Stranger*, *52nd Street...*). So what was the secret of his enormous success?

'Joviality,' he said. 'Convincing people that they are really good and getting them to play at a new level, that's what I look for. And understanding what the assignment

is, because that's forgotten for most of the time. People can perform and play well, but the actual intent in what they're trying to do in the music can be lost. Trying to get everybody on the same page is what being a good producer is about.

'Rudeness is something I just can't tolerate. The engineers and the people who bring you the coffee are as sacred to me as the people at the door. So you have to deal with your own psyche and be humble.

'When you get to know an artist, you find out the things that have peeved them over the years, and it's generally the stuff that has to do with somebody not wanting to do things their way in the studio.

'I served a long time as an engineer, watched many famous producers work, and I decided on the personality that came most easily to me, which is the more relaxed; to give artists encouragement when needed. Players are like thoroughbreds. You have to handle them with care, and if they start competing with each other it can be the most terrible sound you ever heard. But

if you get them wound up to perform together, there's nothing like it...

'I don't get caught up in the stamp of approval, because we, as producers, are way in the back. If

our names were on the front cover, it'd be different, but it's not on the front cover, and the audience doesn't care. I don't

think they go to the Phil Ramone section in Tower Records,' he said once. 'They just don't. So you have to put your ego where it belongs: with the artist, the song and crew you put together.

'The reward of producing comes when somebody inside the record



↑ Billy Joel's *52nd Street* – among the first albums commercially released on CD, in 1982

↓ Dylan in 2006 – Ramone also engineered the singer's *Before The Flood* in '74

company who has a lot to do with what's going on actually calls you and says, "Boy, this record really came out great".

'Or when other artists call you and want to work with you. Probably my strongest point is to get a group of people to play well together in each other's structures, so in

that sense you could call me an old-style producer.

'Then again, I'm all in favour of high-end technology. I'm always seeking for the better sound and the better computer... Today you can paint in acrylics or in oil or any medium you want: analogue, digital in different resolutions, and so on. What's great is the speed of new technological advances.'

## INVISIBLE TOUCH

Phil Ramone passed away aged 79 in February 2013 from an aortic aneurysm. The eulogies were

profuse, one critic at National Public Radio nailing his genius...

'Unlike the rock-era producers who leave pools of reverb and other fingerprinted trademarks on the final product, Ramone attempted to make his technical considerations and sound-shaping effects invisible. He trained the spotlight on the singer, or the musicians and he left it there... He rendered the details of the music as faithfully as possible.'

It's what you know and who you know... Phil Ramone had the lot. ♪





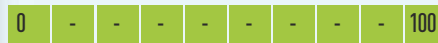
### DIRE STRAITS

Love Over Gold

Mobile Fidelity MFSL 2-469 (two 45rpm LPs)

Though no fan of Dire Straits, I mustn't be churlish and deny the sonic brilliance of this, their fourth LP, dating from 1982, and their first to hit No 1 in the UK charts. As ever, the musicianship is sublime, and Mark Knopfler's fluidity and inventiveness are enough to draw audiophiles to this release, but the self-indulgence counters the previous releases' greater accessibility. Indeed, the 14 minutes-plus of 'Telegraph Road' was causing me to lose the will to live, but suffering through it is what pays my mortgage. That aside, MoFi has done a spectacular job of reissuing the Dire Straits catalogue at this level, though it remains to be seen if one of the band's titles will earn One-Step status. **KK**

Sound Quality: 95%



### THE BEATLES

Japan 1966

London Calling LCLPC 5027 (180g coloured vinyl)

Another copyright-free live set from The Beatles, this time the oft-bootlegged 30th June 1966 gig from Tokyo, captured by Nippon Television. Because it was professionally recorded for broadcast, it's superior to most live releases, typically taped by audience members – you can actually hear the band playing 'I Feel Fine', 'Day Tripper', 'Yesterday' and eight others during one of their notoriously short concerts. The screams are there, but this sounds better than any CD or vinyl bootleg I've heard of it. It is, of course, a souvenir rather than an audiophilic glimpse of what The Beatles might have sounded like live, but I fear such recordings don't exist. **KK**

Sound Quality: 80%



### THE DAVE CLARK FIVE

All The Hits

BMG CAT408DLP (two 140g LPs; part mono)

Don't hang about: this magnificent material is only released periodically and then withdrawn, as Disney used to do with its DVDs, because Dave Clark believes in making us want what we can't have. Twenty-eight tracks, many in mono, show why this underappreciated band deserves more respect. The music was joyous, stomping stuff, with a unique sound, turning the DC5 into chart-topping rivals to The Beatles during the early years of the British Invasion. Sonically, the out-of-print Starline *Best Of The Dave Clark Five* from 1970 is the better bet, with a true stereo 'Glad All Over', but this package's lower octaves will worry your woofers. **KK**

Sound Quality: 90%



### CLEAR LIGHT

Clear Light

Sundazed LP5125 (clear vinyl)

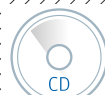
A gem! I have the US original on Elektra, from 1967, and Edsel's 1988 reissue, the latter and this version adding the bonus track, 'She's Ready To Be Free'. Thus it contains the entire output of a nearly-forgotten band that shared generic affinity with The Doors, Love and other West Coast groups producing psychedelic music of a listenable mien. This edition sonically mirrors the '67 pressing's classic Elektra sound, its mix of acid rock, folk and blues making it a joyous return to the Summer of Love. Crucially, *Clear Light* matters because it features on numerous rock family trees, eg, drummer Dallas Taylor joined Crosby Stills & Nash (& Young). Enjoy! **KK**

Sound Quality: 85%





## AUDIOPHILE: DIGITAL



COMPACT DISC



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VINYL



DOWNLOAD



### KRISTIN BOLSTAD WITH STEMMEKLING

Tomba Sonora

2L 2L-155SABD (SACD + Blu-ray; downloads to DXD/DSD512)

Its murky, unreadable cover art is the giveaway: this is a moody, bleak audiophile fest to captivate the sorts who found Joy Division, er, joyous. One disc offers the music on Blu-ray, the other SACD, with a choice of stereo LPCM 192kHz/24-bit, DTS HD 5.0, Dolby Atmos 7.0, Auro-3D, MQA, etc. The pieces are composed by Bolstad, and the mix of five female voices and four cellos in a mausoleum space creates an atmosphere that begs to be augmented by a Scandi-noir murder mystery. Not my cup of tea, but a spectacular recording, and a boon for those who want to try out the assorted formats. *KK*

Sound Quality: 90%



### CREAM

Goodbye Tour Live 1968

Polydor UMC 779 529-9 (four discs)

Like this month's Hendrix box, here is a document of a legendary series of live gigs – both a bane to bootleggers. Cream were, at the time, the biggest act on the planet, and the lavish, 9½x9½in slipcase houses four concerts from the farewell tour of 19 dates. Included are three from the California leg and, crucially, the 26th November farewell from the Royal Albert Hall, on CD for the first time – before this, it was only on DVD. Thirty-six tracks, 29 previously unavailable on CD, 19 of them unreleased – this is a gift for fans. Unlike Jimi, Cream mainly stuck to the set lists, but were truly inventive every night. It all ends, appropriately, with 'Steppin' Out'. *KK*

Sound Quality: 85%



### JIMI HENDRIX

Songs For Groovy Children

Sony Legacy 19075982772 (five discs)

For someone who died so young – 27, for goodness' sake – Hendrix was prolific, and more importantly, caught on tape at every juncture. This magnificent box is a treat for those who thought the Hendrix estate had run out of material. It contains all four of the historic Band Of Gypsies Fillmore East concerts of 31st December 1969/1st January 1970, all 43 songs presented in their original sequence – the original LP was a selection of numbers. This is as perfect an artefact as has arrived during this era of 50th anniversary reissues, the delight coming from Hendrix's varying every set, as opposed to bands which play note-perfect facsimiles of their LPs every night. *KK*

Sound Quality: 85%



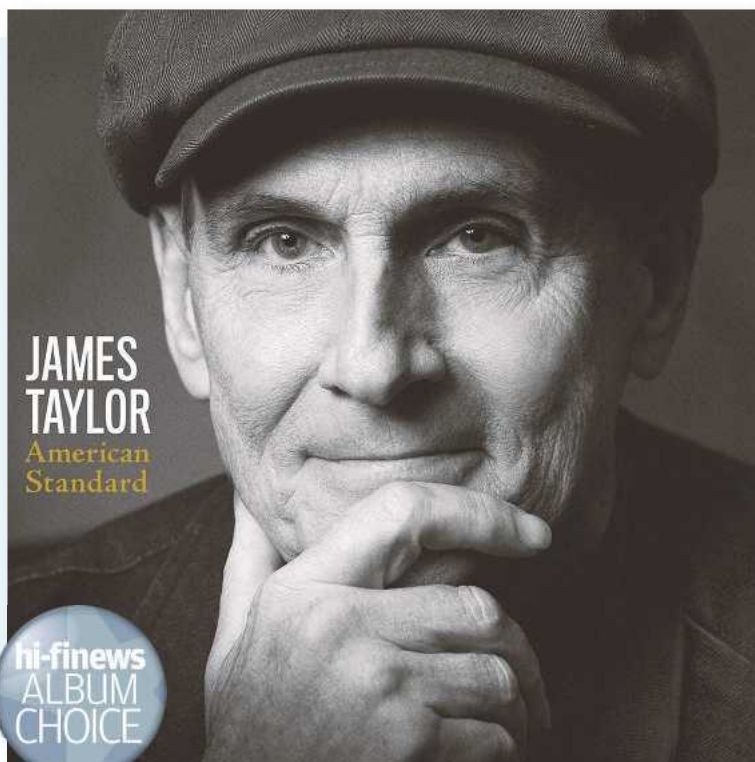
### JAMES TAYLOR

American Standard

Fantasy 00888072145719

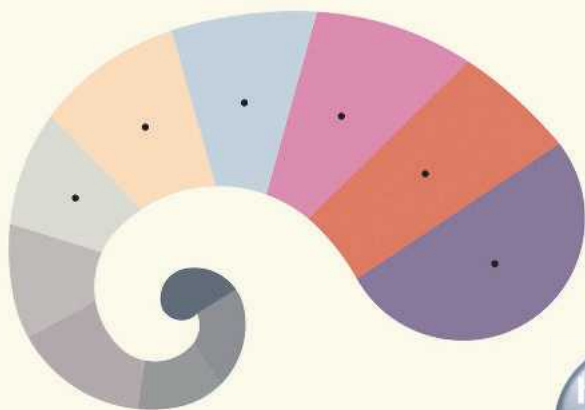
Taylor has always had great taste in songs to cover, never failing to select tunes which suit his laid-back style. This brand new selection of 14 from the Great American Songbook actually recalls earlier, associated sets: ex-wife Carly Simon's multi-album celebration of the canon, and for sonic merit, brother Livingston's work for Chesky Records. JT's chilled delivery matches each song, like a mellow 'Moon River', 'Pennies From Heaven' and others that work well with a lilt and a gentle smile. This album is so cosy, so warm 'n' fuzzy that I'd recommend it for those in need of a little de-stressing in these hectic times. OK, it's not jammed-packed with genius originals, like *Sweet Baby James*, but trust me: it's no Starbucks throwaway. *KK*

Sound Quality: 90%



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### Handel **Concerti grossi** Op. 6 (7–12) **Akademie für Alte** **Musik Berlin** Bernhard Forck



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#### AKADEMIE FÜR ALTE MUSIK BERLIN/ BERNHARD FORCK

Handel: Concerti grossi, Op. 6:7-12  
(96kHz/24-bit, FLAC/DSD64)

[www.hifiresaudio.com](http://www.hifiresaudio.com); Pentatone PTC5186738

Handel wrote his 12 *concerti grossi* Op. 6 in a short space of time in 1739, borrowing here and there from others or from his own music (eg, Nos 11 and 12 are reworkings from two of his organ concertos). The music, for strings and continuo, was slotted into London oratorio performances and the scores sold on a subscription basis. The earlier Pentatone release of Nos 1-6 prompted some criticism for including wind parts taken from

the composer's own later markings in working scores, but here it's 15 string players led by Forck, organ, harpsichord and lute. The group's Beethoven 'Pastoral' [HFN Jun '20] has been a 250th anniversary highlight and, recorded in a Berlin church, they make a beautiful sound from the deep rich opening *Largo* of No 6 to the dancing *Allegro* finale to No 12, with added colour from the continuos. **CB**

Sound Quality: 95%



#### Yael Naïm

*Nightsongs* (44.1kHz/24-bit, FLAC)

[www.qobuz.com](http://www.qobuz.com); Tôt Ou Tard

Having your music chosen for an Apple commercial can do a career no harm, especially when word goes out that the late Steve Jobs had selected it himself. That was 12 years ago, giving French-Israeli singer/songwriter Yael Naïm her first big hit. Six albums and two Best Female Artists awards from the French equivalent of the Grammys later, we have the gorgeous-sounding *Nightsongs*. Its shimmering production showcases Naïm's breathy, occasionally husky voice with a lovely intimacy. And whereas some tracks are stripped back, others – such as 'She', with its ethereal choir – up the layering a little more to dramatic effect. But they do this without ever seeming overdone. It'll all be a bit fragile and close up for some tastes, but it's none the worse for that – and, despite the roots of Naïm's fame, it just about swerves the 'John Lewis ad' effect. **AE**

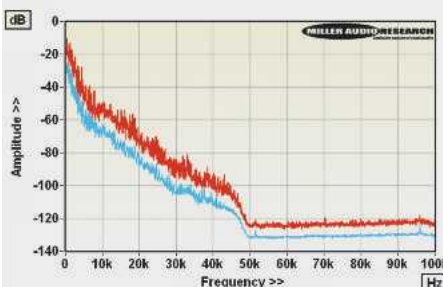
Sound Quality: 90%



### OUR PROMISE

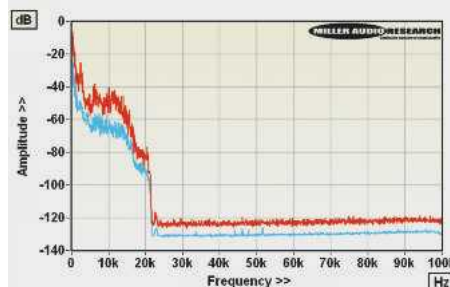
Following our Investigation feature [HFN, Jun '11] in which we examined the claimed quality of high-resolution downloads, *Hi-Fi News & Record Review* is now measuring the true sample rate and bit-depth of the HD music downloads reviewed on these pages. These unique reviews will be a regular source of information for those seeking new and re-mastered recordings offered at high sample rates and with the promise of delivering the very best sound quality. (Note: asterisk in headings denotes technical reservation explained below.) **PM**

### LAB REPORT



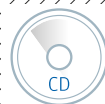
Recorded at the Nikodemuskirche Berlin, in early 2019, the full bandwidth offered by 96kHz sampling is used by harmonics from both higher strings and harpsichord that extend up to ~40kHz. This is where 'high-res' comes into its own. **PM**

### LAB REPORT



While the CD sample rate is necessarily limited, and (analogue) noise evident on the guitar/vocal feeds, the dynamic range is still well used, particularly on trk12 [see Graph]. Peak levels are close to the digital wire at -0.1dBfs. **PM**





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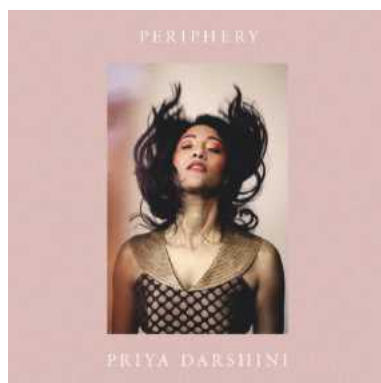
## GIOVANNI ANTONINI/IL GIARDINO ARMONICO

Vivaldi: Flute Concertos (96kHz/24-bit, FLAC)

[www.hiresaudio.com](http://www.hiresaudio.com); Alpha ALPHA364

Flautist/director Giovanni Antonini founded the period-instrument Giardino Armonico in 1985 – they are currently embarked on a longterm Haydn Symphony project [see *HFN* Oct '18]. Here, we have the popular 'Tempesta di mare', Op.10 (Warner Classics has an earlier version by these artists), and five other concertos for flute or recorder, together with a solo from Vivaldi's dark *Nisi Dominus* setting. It's played on the chalumeau, a predecessor of the clarinet with a monochrome pipe sound. Antonini is a brilliant and expressive performer but his group is taken to extremes of speed and dynamic contrasts – the *Largo* of RV443, for instance, is *very* slow. It's a far cry from Gazzelloni/I Musici in the old Philips Vivaldi Edition. Period-instruments here, of course, and a bold continuo presence with theorbo, Baroque harp and harpsichord. **CB**

Sound Quality: 85%



## PRIYA DARSHINI

Periphery (96kHz/192kHz/24-bit, FLAC/AIF)

[www.hdtracks.com](http://www.hdtracks.com); n/a cat no.

In a video for the single previewing this album, 'Home', Darshini floats, Ophelia-like, in a lake, her arms folded across her chest, roses strewn around. Fortunately this debut album is rather more original! It draws on her Indian heritage while an unusual lineup of musicians includes hammered dulcimer player Max ZT, cellist Dave Eggar, percussionist Chuck Palmer and Living Colour drummer Will Calhoun. There's light and shade here, not least due to the way the album was recorded – in one take, on a single omni-directional microphone, and with no compression or equalisation. Darshini says: 'To me, the "recording" itself is a piece of art and lies at the intersection between our music, architecture, and the recording technology'. Subscribe to that analysis or not, there's no denying that this set has a vitality sadly lacking in many a more overly 'produced' release. **AE**

Sound Quality: 85%



## MARTIN HELMCHEN, DEUTSCHES SO/ANDREW MANZE

Beethoven: Piano Concertos Nos 1 and 4 (96kHz/24-bit, FLAC)

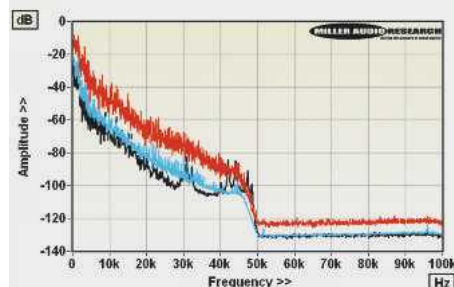
[www.linnrecords.com](http://www.linnrecords.com); Alpha ALPHA575

Stephen Hough's new Hyperion cycle [*HFN* Sep '20] sets the bar high for recordings of the Beethoven Concertos – especially No 4. But Helmchen is warmer, more personal in his approach (the *Andante* is marginally more spacious here). He doesn't spread the opening chord like Hough; and in 1(i) at the recapitulation makes a dramatic *glissando* effect which Hough eschews. Manze I think brings a more 'period' feel to the accompaniments than Hannu Lintu and I find his expositions more appealing. The earlier work was recorded at the Teldex Studio Berlin (Oct '18) and No 4 in the Philharmonie concert hall (May '19). Unfortunately, in both Concertos – and in Nos 2/5 [ALPHA555] – you hear a lot of pedalling noise with Helmchen, but thankfully none in the *Andante* of No 4. **CB**

Sound Quality: 85%

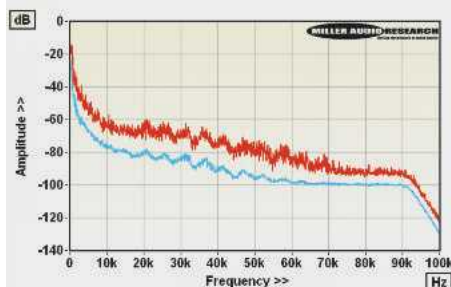


### LAB REPORT



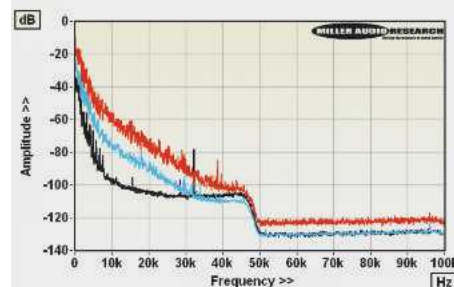
Recorded in 2011 and 2017 at Italy's Academia Montis Regalis, the period flute and harpsichord occupy the full 96kHz sample rate. However, all trks except 10 and 15-19 show identical ultrasonic spuriae on the R channel [black trace]. **PM**

### LAB REPORT



Tested in its native 192kHz guise, most tracks [excluding trk 8 with its pulses of percussion – see Graph] would easily be accommodated at the lower 96kHz rate. Maximum level is -0.3dBfs (trks 2 and 3) and the dynamic range is excellent. **PM**

### LAB REPORT



Recorded in 2018 and 2019 but with Pyramix/Merging Technologies throughout, there's tremendous dynamic range here over a full 40kHz+ bandwidth. The spurious 32.2kHz peak is in the Concerto No 4 only [black trace]. **PM**

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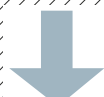
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### TIM BURGESS

#### I Love The New Sky

Bella Union BELLA1006CD; LP: BELLA1006V

Burgess has recorded 13 albums with The Charlatans, a group who have proved as enduring as his bowl-cut, but this is his first completely self-penned solo album. And he has found a perfect foil in multi-instrumentalist Daniel O'Sullivan from Grumbling Fur, who is equally adept at pop and experimental styles, and contributes some deft violin and keyboard arrangements. Burgess's vocals have a light and breezy charm, but we are never far from an inspired structural twist or chord sequence in songs with echoes of Brian Wilson and Todd Rundgren. Lyrically Burgess is always engaging, making a droll examination of art celebrity on 'The Warhol Me' while on 'The Mall' he portrays a shopping centre as a thing of wonder. **MB**

Sound Quality: 90%



### BADLY DRAWN BOY

#### Banana Skin Shoes

One Last Fruit OLF005CD; LP: OLF005LP

After Damon Gough won the 2000 Mercury Prize, life became complicated by sniffy reviews, disappointing sales and record company problems. He's remained largely silent for the past decade, but this is a convincing return to form under his famous alias. He satirises celebrity on the title track and becomes more autobiographical on 'I'm Not Sure What It Is' with its positive hook – 'the best part is that the future's unknown' – and an irresistible melody with jazzy syncopation and punchy horns. It feels a long way from his more homespun early work and typifies the album's potent mix of vivid, multi-layered arrangements and songwriting craft. **MB**

Sound Quality: 85%



### BLANCMANGE

#### Mindset

Blanc Check BCR020CD; LP: BCR020LP

Since Stephen Luscombe retired in 2011, Blancmange has become a solo vehicle for Neil Arthur, who has gone from the agitated raconteur on '80s hits like 'Living On The Ceiling' to the older, cooler persona who presents us with conundrums and verbal puzzles. On *Mindset* the combination of sequencers, synths and rich vocal melodies underpinned by hissing, clicking synthetic drums sounds like the electronic template of 30 years ago given a modern makeover, with more depth and bottom end. Eighties synth pop often spoke of alienation and dystopia, and on 'Antisocial Media', a song about Internet trolling, Arthur shows that those ideas are just as relevant now. **MB**

Sound Quality: 85%



### LOUISE PATRICIA CRANE

#### Deep Blue

Peculiar Doll PECUL001CD; LP: PECUL001

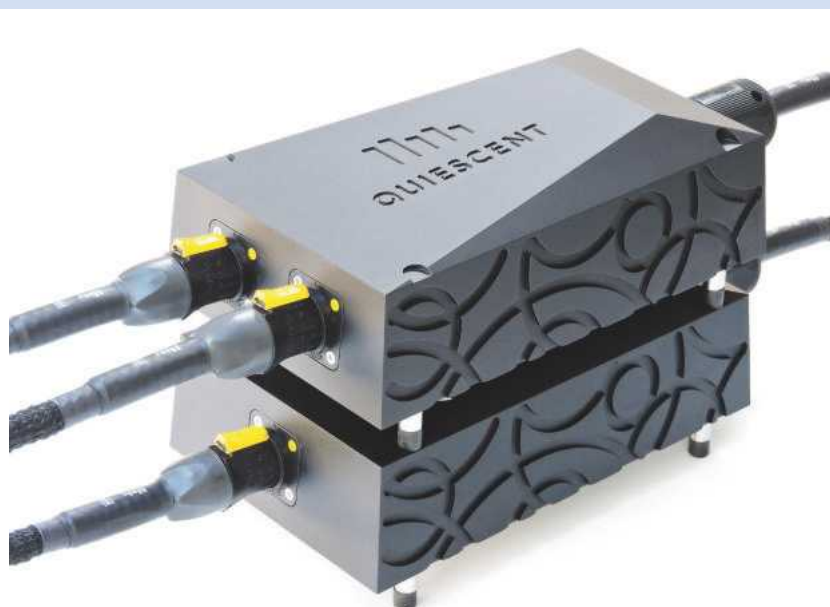
A former vocalist with the Eden House collective, Crane readily acknowledges the compositional influence of Kate Bush on her debut album, but on 'Deity' here the way her vocal melody soars across the sonic panorama also reminds me of All About Eve, and the swirling, spangly guitars evoke early Cocteau Twins. Jethro Tull's Ian Anderson plays flute on 'Snake Oil', but the crucial contributor is current King Crimson guitarist Jakko Jakszyk, whose production adds psychedelic colour. Crane guides us through pastoral moods with strings and uilleann pipes, and on 'The Eve Of The Hunter' her voice rises from soft melodic cadences to break free at its dramatic conclusion. **MB**

Sound Quality: 90%



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### GEORGE COLLIGAN TRIO

Live In Arklow

Ubuntu Music UBU0055

New Jersey-born George Colligan majored in classical trumpet before starting as a jazz pianist. He's been recording steadily as a leader since 1995, and formed the trio heard here for the 2018 Bray Festival. US-based Irish drummer Darren Beckett is an old colleague, David Redmond a leading bassist on the Irish scene and, with a happy audience and a lively church acoustic, they deliver a great performance, varied and accessible. Kicking off with Freddie Hubbard's 'Up Jumped Spring', they move to fast Latin with Bossa pioneer Carlos Lyra's 'Influence Of Jazz', while Colligan's originals culminate with the fastest, 'Usain', sprinting to a world-class finish. *SH*

Sound Quality: 85%



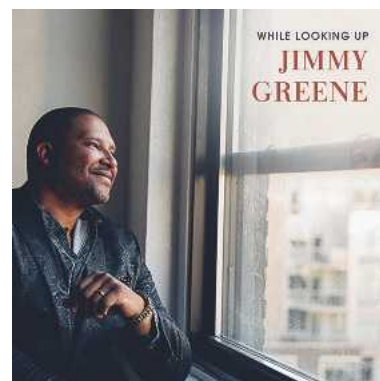
### AVISHAI COHEN

Big Vicious

ECM 0836025; LP: 0860630

Something very different from the trumpeter's elegant 2019 duo album with pianist Yonathan Avishai, *Playing The Room*. Cohen formed Big Vicious in Israel six years ago after relocating back to his homeland from the USA, choosing musicians who'd blend rock, electronica and more. They are guitarist Uzi Ramirez, Yonathan Albalak on guitar and bass, Aviv Cohen on drums and Ziv Ravitz, drums and live sampling. 'We're all coming from jazz, but some of us left it earlier', says Cohen. So you get a cover of Massive Attack's 'Teardrop' and even a dip into Beethoven's 'Moonlight Sonata', but it's on other tracks that Cohen's Milesian trumpet shines more alluringly. *SH*

Sound Quality: 80%



### JIMMY GREENE

While Looking Up

Mack Avenue MAC1154

*Beautiful Life* and its follow-up *Flowers: Beautiful Life Vol 2* memorialised the daughter Greene so tragically lost in the Sandy Hook school shooting, with contributions from a host of guest stars. But now Greene has reunited with two cohorts from his earlier *Mission Statement*. Norwegian guitar star Lage Lund weaves wonderful tracery around Greene's latest crop of tunes, while bassist Reuben Rogers is featured especially when the group strips down to a trio for a sombrely effective 'Good Morning Heartache'. Pianist is Aaron Goldberg, and on drums is the great Kendrick Scott, while vibes master Stefon Harris guests on two tracks. Uplifting. *SH*

Sound Quality: 80%



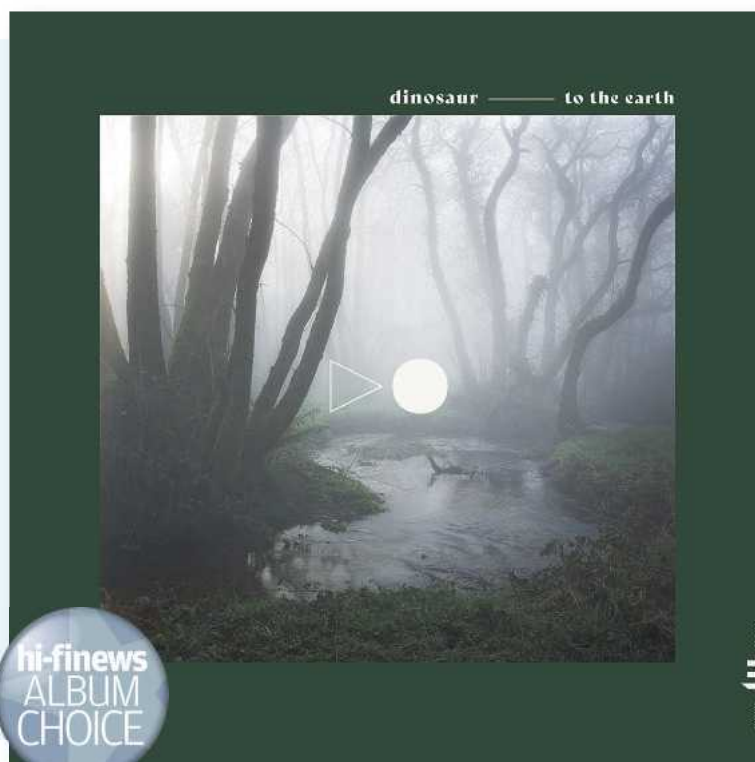
### DINOSAUR

To The Earth

Edition Records EDN1154; LP: EDNLP1154

It's ten years since trumpeter and composer Laura Jurd teamed up with pianist Elliott Galvin, bassist Conor Chaplin and drummer Corrie Dick, all wonderful players. They all also appeared alongside the Ligeti Quartet and Ben Davis on *Landing Ground* in 2012 and in the Chaos Orchestra big-band project. Here the Dinosaur quartet sounds more acoustic than on 2018's synth-heavy *Wonder Trail*, creating an inviting and richly-textured sound world with only gentle electronic assistance. The one cover is a striking take on Strayhorn's 'Absinthe', and Jurd's pieces are great, from the sprightly, optimistic title piece to the Monk-tinged crawl of 'Slow Loris' or her flowing 'To The Water'. And her own playing is fabulous. *SH*

Sound Quality: 90%



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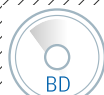
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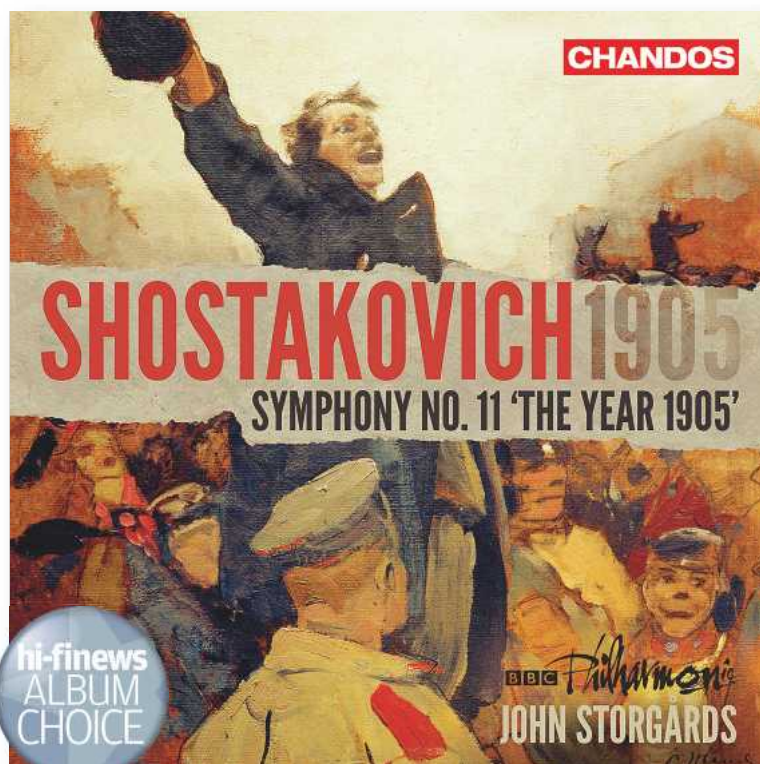
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### SHOSTAKOVICH 1905

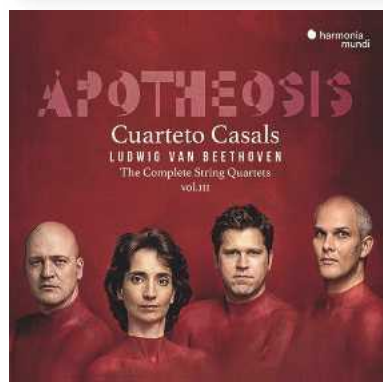
Symphony No 11 'The Year 1905'

BBC Philharmonic Orchestra/John Storgårds

Chandos CHSA5278 (SACD; downloads to 96kHz/24-bit resolution)

With this Symphony Shostakovich returned to a programmatic theme: the Palace Square event in 1905 when troops fired and cavalry charged into an innocent crowd bearing a petition for the Tsar. (It's speculated that the composer was actually alluding to the Soviets invading Hungary.) The finest music comes in the opening dawn movement – barely rising above *mf* in its 18 minutes. There are important parts for the snare-drummer and tympanist tying the movements together – a sombre *adagio* follows the massacre depiction. Stay with the musically unrewarding finale, for the thrilling effect here of four heavy church bells at the very ending. Multi-channel too, if you want that. **CB**

Sound Quality: 90%



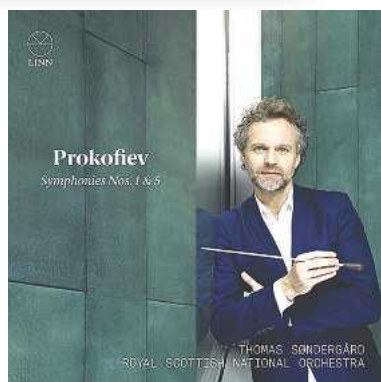
### BEETHOVEN

String Quartets Opp. 18:5 & 6; Op. 95; Op. 130 & 131  
Cuarteto Casals

Harmonia Mundi HMM902406-08 (three discs)

Subtitled 'Apotheosis' this is the final set in a trilogy by this Madrid-founded group (look them up – they're not always grim as seen above!), comprising early, middle and late period Beethoven string quartets; Vol 2 was reviewed in our High-Res Downloads section [*HFN* May '19]. Like the Emersons, the violinists alternate to play the lead part – and like them they take a high-powered approach. A highlight for me was the later Op. 130 finale (the *Grosse Fuge* is also included), while the *Cavatina* they just play as if it's nothing special. But they do plumb the depths of Op. 95(ii). A great contrast overall to the Brodsky Qt [*HFN* Jun '20]. **CB**

Sound Quality: 80%



### PROKOFIEV

Symphonies Nos 1 and 5  
RSNO/Thomas Søndergård

Linn CKD611 (downloads to 192kHz/24-bit resolution)

Start with the 'Classical' Symphony and you are struck by the finesse of the playing under Søndergård – it's an exemplary version, as the engaging note says mixing Haydn with Prokofiev's cocking-a-snoot attitude as a young man. No 5 has always fared well in recordings, from the 1946 Koussevitzky/RCA onwards. Søndergård takes a measured, somewhat distant approach, clarifying every strand – the Scottish Orchestra makes a great sound at the end of (i). I'd have liked a more personal thrust, though, in both outer movts, and Prokofiev's sudden 'mechanistic' finale coda doesn't set the pulse raising as it can. **CB**

Sound Quality: 80%



### SIBELIUS

Symphony No 2; Suite – King Christian II  
Gothenburg SO/Santtu-Matias Rouvali

Alpha ALPHA574 (downloads to 192kHz/24-bit resolution)

Rouvali's Symphony No 1 created a storm of excitement and here some may be surprised by the restraint of the finale – especially if they know that live BBC SO/Beecham recording! Much dramatic use is made of rests in the Symphony and the fine production clarifies the wealth of fine orchestral detail Rouvali brings out. A fine complement to, say, the LSO/Monteux and Philharmonia/Karajan readings. You might think Rouvali's players were Finnish rather than Swedish such is their mastery of the music. And the coupled *Suite* is instructive: composed three years earlier, it has passing similarities in the writing. **CB**

Sound Quality: 90%





## 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

# Unlocking hi-fi treasure

Having a home clearout, **Barry Fox** discovers thousands of old sound recordings on VHS cassettes but he needs to assemble some inexpensive kit to bring them all back to life again

Perhaps like many of us, I've used the lockdown as a way to finally get around to clearing out my garage and attic. There I found literally thousands of mainly VHS video cassettes, many storing music recordings from TV and radio stations. Lest we forget, during the '80s and '90s JVC's VHS (and Sony's Betamax) videocassette recorders were able to tape and play back very high quality analogue audio. Although the 1/2in tape moved slowly, the rapidly spinning helical-scan record/play heads gave high tape-to-head speed and an effective bandwidth of over 3MHz.

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Stereo audio was also recorded by the spinning heads. This was FM, like broadcast radio, with L/R channels on different frequency-modulated carriers, with depth multiplexing. Audio was recorded at a lower frequency than the video – deeper in the tape coating than the higher frequency video.

The result was flat response between 20Hz-20kHz, a claimed 70dB S/N ratio and 90dB dynamic range. So VHS and Beta Hi-Fi ostensibly delivered CD quality

without digits. FM radio stations linked with TV stations to broadcast simulcasts, and VCRs came with the option to record hi-fi radio without video. TV companies started using NICAM stereo to transmit music with high audio quality.

### WORDS OF ADVICE

Why hasn't there been a VHS/Beta Hi-Fi revival, along with vinyl and open reel tape? Videocassettes had painfully slow/fast winding and searching, with a lot of neo-Heath Robinson tape mechanics to go wrong. When the world switched to rapid access DVD, hard disk and solid-state recording, the few factories round the world capable of making the key components for VCRs stopped.

Along with those videocassettes, I unearthed a couple of recorders that were still working. So I embarked on a project to dub a few VHS Hi-Fi audio treasures onto digital media. Here are some hard-learned practical tips.

If you have a pile of cassettes but no VCR, don't despair. Try eBay. And friends – there is still a lot of this stuff sitting in attics, forgotten. Basic VCRs had analogue phono and SCART outputs. The simple way to digitise audio only is to feed the VCR's Audio Out direct to a USB analogue-to-digital capture box (ADC), as now routinely sold for copying cassettes and LPs.

The simple way to digitise audio-plus-video is to feed the VCR's AV output to one of the boxes now sold to gamers who want to capture console play. These connect by USB to a computer which is running capture software such as Arcsoft Showbiz or Hauppauge Capture. Or you can use the free program OBS (Open Broadcaster Software – <https://obsproject.com>).

Unfortunately VCR tapes degrade over time. The magnetic signal fades and the tape stretches or sticks. The linear control



**ABOVE:** This SCART-to-HDMI converter box can be found at [amazon.uk](https://www.amazon.co.uk) at around £15

track (which syncs the helical scan signals) can't keep the picture steady and the sound smooth. The trick, which I learned by much trial and error, is to use a simple device called a SCART-to-HDMI converter. Like it says on the tin, this converts analogue SCART signals to digital HDMI. The only adjustment is between 720p and 1080p – use the lower setting.

### STABLE SIGNALS

Converters can be bought online, new, for £15-£20. Although different brand boxes may look different they all (or mostly) use

the same HDMI chips. The giveaway is the parroted description: '10 bits max 162MSPS sampling'.

This probably comes from HDMI specifications which refer to 10-bit coding for the video signals at up to 165MHz.

Actual sampling is

surely much lower, around 10MHz, with oversampling, and it's all far higher quality than VHS. What matters is that even a cheap SCART-to-HDMI A-to-D converter delivers much more stable audio and video signals to the capture box than direct analogue connection. So unplayable audio and video treasures become perfectly playable once more. ☺

**'Don't despair if you have no VCR: just ask your friends'**



**ABOVE:** The author's 'dubbing rig' with SCART-to-HDMI converter box and cabling





## Barry Willis

Journalist for top American audio-video publications

While his main interest is high-end audio, Barry Willis also writes about the culinary industry, visual art and theatre for a huge variety of US newspapers and magazines

# Polar exploration

Can you detect polarity reversal when you listen to a recording, asks **Barry Willis**, who tells how the inner ear works but explains that the complexity of recordings often defeats purist needs

In the 1980s, RC Johnsen published *The Wood Effect: Unaccounted Contributor To Error And Confusion In Acoustics and Audio*. Its title was derived from experiments done in 1957 by Charles L Wood of the Defense Research Laboratory, who discovered that a sine-wave clipped on one side to render it asymmetrical acquired a different timbre when its polarity was reversed. Wood's work was finally published in 1962 and made its way into the audio world's body of knowledge – and its many contentious articles of faith [see p59].

## OUR PERCEPTION

The perceptual change that Wood documented is the result of the inner ear acting as a half-wave detector. The inner ear – cochlea, basilar membrane, hair cells, etc – converts hydraulic pressure waves into nerve impulses. The hair cells, each 'tuned' to a specific frequency range, and each culminating in an auditory nerve, act together as a spectrum analyser. Auditory nerves trigger only on the compressive phase of the wave and, conversely, are inactive during the rarefaction phase.

Wood's unaltered phase therefore sounded to his test subjects exactly like a pure sine-wave, but the clipped inverse sounded distorted. An interesting laboratory curiosity, perhaps, but what impact could it have on recordings and playback?

It turns out that musical waveforms are not symmetrical – a phenomenon of long fascination to someone like me, who has spent years looking at them on oscilloscopes. Instruments such as the flute render certain notes as almost perfect sine-waves, but they are rare. Complex musical waveforms are often wildly asymmetrical. Their upper and lower portions – which represent

'Recordings are produced with a random polarity'

compression and rarefaction phases of signals impinging a microphone – are far from mirror images, even though they may have equivalent energy.

It also turns out that recordings are produced with seemingly random polarity, a phenomenon of sufficient concern that some preamps, such as the recently reviewed Luxman CL-1000 [HFN Mar '20] and a few disc players have been equipped with a 'polarity switch' to enable listeners to choose which position sounded better. It's extremely useful when remote-controllable, especially with purist recordings where obsessive attention was paid to keeping

polarity consistent throughout the entire chain, from microphone at one end to loudspeaker at the other.

In an ideal world, music that starts with a compression should be rendered as a compression at your eardrums. Some recording companies care about this, but the vast majority of commercial recordings are made by mixing multiple tracks – feeds from multiple microphones put through many stages of processing, not to mention that sometimes the

musicians aren't in the same space, or even on the same continent. This may be heresy to purists, but the results are often musically engaging and totally enjoyable.

Hearing what's hidden in a recording is like seeing the dark side of the moon. The amazing thing is that despite wildly different wave shapes, inverted and non-inverted audio signals don't sound much different from each other, although listeners vary in their sensitivity.

## SIMPLE TEST

It's an experiment that's easy to do: play a piece of music, then reverse the inputs to your loudspeakers and play it again. An even easier experiment can be done with an electrostatic panel in free air, not close to any walls. Play a recording and stand in front of the speaker, then walk around to the back side and listen to the inverse. How much difference do you really hear? The dark side of the moon isn't a radical departure from the visible side.

I had a dear friend who was a nuclear physicist at the Lawrence Berkeley Laboratory. He was also a music lover, and had a glorious baritone voice. One night I tried to explain to him the audiophile concept of absolute polarity. His take: 'An intriguing hypothesis, but any practical application is probably impossible'. ☺



ABOVE: The Luxman CL-1000 preamp sports polarity inversion toggle switches for both main output and balanced input, enabling the user to try the subjective effect with a music signal

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## 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

# Kicking back

Far from chalking five-bar gates on the wall to count the days, **Andrew Everard** has been enjoying his time listening and working – and delving deep into his music collection

Outside the office window, on the drive, are two cars. One hasn't turned a wheel in six weeks at the time of writing – fittingly, its last outing was to Editor PM's to collect equipment for review – while the other has just done short local shopping trips when the daily queueing became too much and the need for a trolleyful became pressing.

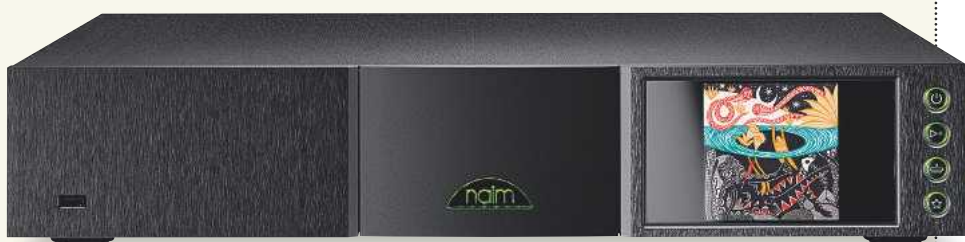
Welcome to life in lockdown, hi-fi reviewer-style, and the most remarkable thing is that it's pretty much unremarkable. There's a marked lack of cabin fever, gate fever or any other kind, thank goodness, and to date the hi-fi industry has proved capable of delivering equipment for review.

### WISE WORDS

As for adapting to the lockdown, which may be all over by the time you read this but probably won't, so far I've invested in a new computer monitor, had the odd meeting via Zoom or Teams or whatever – though I can't say I enjoy them that much – and basically kept calm and carried on while watching the world go quietly crazy beyond the front door.

This isn't an 'I'm all right Jack' diatribe, ignoring the plight of all those now without work. And I'm not overlooking the devastating effect This Thing I Have So Far Managed Not To Name has had on those who have lost those close to them. Neither is it some dystopian prediction of the new normal where things will never be the same again. But it's been interesting to see how some businesses have adapted to how things have changed. Some have embraced the change forced upon them while others have seemingly just given up.

In the hi-fi arena I've been surprised just how many companies not only



**ABOVE:** The Naim ND 555 network-attached DAC – the word is that it sounds best with all inputs enabled, while 'relaxing' the attached cables is also said to bring improvements in sound quality

still want the publicity of having their products reviewed, but also have the wherewithal to deliver review samples. Anecdotal evidence suggests that the wise audio manufacturers have realised we've all had more time to read, dream, and plan the next move for our systems – or maybe even divert the money for that exotic summer holiday into making life at home more comfortable.

### SHIPPING FORECAST

Those I talk to in the industry suggest there's been a boom in sales of TVs, soundbars and the like – yes, despite the fact the programming on the main terrestrial channels is slowly turning into the kind of 'Weekend Fools And Horses

Marathon' usually only found further down the list of free-to-air offerings. But what about the need to *audition* components?

Well, a friend who works in another sector of retail – which was previously thought to be driven by the needs

of the customer to see, touch and experience the product before buying – has found there's been a sudden boom in demand for mail order, the extent of which has caught the company unawares (though they're pleased to be in the position of struggling to cope!). The same appears to go for everyone from

breweries to fishmongers. But I still can't see that this is going to be the way forward for audio's high end, given the costs involved in shipping some of the monstrously large and huge equipment that we encounter to and from the homes of prospective buyers.

### UNCANNY WITCHCRAFT

What I *have* found happening, not least due to what the broadcasters are describing as 'temporarily slimmed down schedules' – endless repeats, in other words, which at least is better than *The Archers* bizarrely carrying on for six weeks as though nothing was going on – is that I am finding time to fiddle, tune, experiment with, and listen to my system.

I've been carrying out some much neglected running maintenance – but then even with something as notoriously sensitive as a Naim ND 555 network-attached DAC [*HFN* Apr '19], there are only so many times you can re-dress the cables – and above all relying on the resources to hand, in the form of my music library on the servers as well as the online streaming services.

Whether it's Radio Paradise, Qobuz or Tidal streaming, or just the uncanny witchcraft seemingly informing the programming of Roon Radio, always seeming to find something to interest the user, the pleasures of just kicking back and letting yourself be entertained have much to commend them. ☺

'We've all had time to plan the next move for our systems'

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## Jim Lesurf Science Journalist

Jim Lesurf has spent a lifetime in audio, both as an engineer at UK hi-fi company Armstrong and reader in Physics and Electronics at St Andrew's University

# This year's model?

If your service engineer is foxed when it comes to repairing an older hi-fi component, **Jim Lesurf** says it could be because modifications were made to it without the paperwork being updated

In terms of mass market sales, hi-fi components probably reached their peak during the period in and around the 1970s. It was then that the video recorder began to appear, which soon became the 'must have' consumer product. Enthusiasts in the UK tended to go on buying their hi-fi from the established UK names. More generally, the public bought Japanese imports.

The Japanese companies mostly manufactured units in far larger numbers than their Western counterparts in order to achieve economies of scale. They also established the approach of upgrading product ranges on a regular basis, which enabled them to market this year's tuner or amplifier as being superior to the one released the year before.

### INSIDE THE BOX

By contrast, UK manufacturers tended to carry on producing what seemed to be the same model for some years in succession. Under the lid, however, these companies often made changes in order to update or improve the performance of a component. This gave them the advantage of being able to use the same tooling, dies, etc, for the product's case, fascia, and so on, while adjusting performance on the basis of experience and customer feedback.

Sometimes the changes were obvious: eg, the Quad 34 preamp began life with DIN connectors and Peter Walker's beloved 'marigold' colour scheme.

However, over time this changed to the use of RCA phono connectors and a more bland colour scheme, albeit with a more complex circuit inside the casework.

Armstrong adopted a 'continuous development' approach which meant that quite significant changes to its 600 range were made without any obvious alteration being made to the



**ABOVE:** The Armstrong 625 FM receiver – the company could make changes to circuitry without disclosing the details, which proved to be the case with one unit that came the author's way

appearance of components. As a result, early and late examples of both the Quad and Armstrong models are sometimes significantly different in terms of what's inside the boxes. This all made sense at the time – but fast forward to today and it can cause some problems...

Recently I was contacted by someone who had an Armstrong 625 FM receiver they wanted to service, and they asked me for some advice and information. After some correspondence and seeing a number of photographs he sent showing

the relevant innards of his set, I realised this was a classic case of the old 'British approach'. The fault he needed to fix was on a circuit board whose details Armstrong had never actually published!

If I recall correctly, three issues of the printed

circuit and layout diagrams of the 600 range were issued, and these showed most of the improvements made over the years. But a few changes *were* made towards the end of its production life that never resulted in the release of any official circuit diagrams (this being relevant in my contact's case). One of the last modifications Armstrong made was

to change the FM stereo decoder from an old RCA integrated circuit to a then-new Texas Instruments one. This noticeably improved the stereo rendition, but involved a totally different circuit board.

As I say, it was a change that was not documented at the time, and consequently could be a puzzle later for anyone who encountered it for the first time. Decades ago I had my own paperwork for the board, but sadly at some point over the years this went astray. So in this instance all I could do was recall that there *had* been a change, and to point to the relevant TI data sheets. Fortunately, you can still find these on the Internet. But so far as I know, no original diagrams for the actual Armstrong TI decoder board remain.

### SERVICE ENIGMA

This illustrates a more general problem today, caused by the 'British approach'. Someone wanting to service an old item may find that the equipment they have in front of them doesn't match any specs from the maker. They then have to ask, 'Is this a change made by the designer/maker, or has someone else been fiddling with the set – possibly unwisely?'. And if no original diagrams ever existed, it's a question that will remain unanswered. ☹

'Decades ago I had my own paperwork for the 'TI board'

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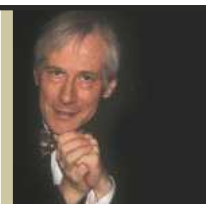


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\*Reviews of the original Nucleus+, which has the same technical performance of the 2019 revision but a different look.





## 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

# Polish spirit

Maybe too busy listening to his old favourites, **Christopher Breunig** finally catches up with a young conductor with a repertoire stretching from JS Bach to John Williams and Philip Glass

Seven years late and vastly over budget, Hamburg's futuristic riverside concert hall, the Elbphilharmonie opened with a concert and lightshow in January 2017. The architects, Herzog and de Meuron, were also responsible for Tate Modern and its extension in London.

The Elbphilharmonie is widely celebrated in Internet walkaround videos and others with constructional details – its Großer Saal has seating for 2100 concert-goers and is home to the former NDR Symphony Orchestra, now renamed. Record collectors will doubtless have many of the widely admired RCA CDs made by Günter Wand, who was principal conductor there from 1982-90.

### WARSAW STUDENT

Currently the post is held by ex-New York Philharmonic Alan Gilbert, whose appointment announcement reportedly piqued Thomas Ingelbrecht (2011-18) who quit a season ahead of his contract agreement. But it's none of these three I am introducing here. Instead, it's the NDR Elbphilharmonie Orchestra's principal guest conductor since 2015, Krzysztof Urbanski. Thirty-eight later this year, he was cited by his tutor Antoni Wit as the most promising of all his pupils at the Warsaw University of Music.

After he graduated, Urbanski assisted with the city's Philharmonic Orchestra for a couple of years then moved to work with the Trondheim SO, and in 2011 he was appointed chief conductor of the Indianapolis Orchestra. With them he recorded the Elgar Cello Concerto for Telarc with soloist Zuill Bailey, which was Urbanski's 2013 debut on CD.

His first Alpha Classics CD came in 2015 with Lutoslawski and what followed suggests (along with, say, the

**RIGHT: Krzysztof Urbanski is now principal guest conductor of the NDR Elbphilharmonie Orchestra, Hamburg, and recording for the Alpha label**



PHOTO: NDR/DE (ALPHA/CLASSICS)

online concert performance videos of the 'Eroica', Mendelssohn's 'Italian' and Dvořák's Seventh Symphony) a wide range of musical sympathies. Recordings include the 'New World' Symphony; Rachmaninov; R Strauss tone-poems; Shostakovich No 5; Stravinsky's *Rite of Spring* and, for Sony, Martinů with Sol Gabetta. He also accompanies Jan Lisiecki in Chopin's smaller piano works [DG].

Late to the party (like Angela Merkel, delayed by a traffic snarl-up in reaching that Hamburg concert...) I'd not heard any of these – or even heard

of the Russian pianist, Anna Vinnitskaya, he accompanies in Rachmaninov's Piano Concerto No 2 and *Paganini Variations*, [ALPHA275]. The famous '18th Variation' was his fiancée's favourite piece and was played at their

wedding. 'And when I hear it, I have a really hard time not to start crying.'

The *trouble* with conducting, he says, is that he's not supposed to contribute to the sound. 'But when there is a loud passage, I am singing – no-one hears. The loudest instrument in the orchestra is the cymbals: this is my dream. Once in my life I want to be the loudest person on stage!'

“But when there is a loud passage, I am singing”

When you look at the live concert footage – where, incidentally, he is always seen conducting from memory – the ease with which he moves around on his stage plinth looks unique... fluid gestures (with a baton) and expression in his face animating the content of the music.

In a short series of five videos where, seated at his Steinway, he talks about the *Rite of Spring* (which YouTube unhelpfully scrambles together with links to his Polish namesake, a jazz saxophone player!), he pulls out details from the scoring and likens Stravinsky's use of colour to the paintings of Gauguin, Matisse, the Fauvists, *et al.* 'The music does all the magic for you,' he concludes.

### THE RITE PRICE

Krzysztof Urbanski's CD recording of the piece [ALPHA292] comes with a Blu-ray disc of the Elbphilharmonie Orchestra's concert performance from Feb '17 – a month or so after the sessions held in the new hall. The label's high-res downloads seem limited to 48kHz/24-bit resolution but for this 36-minute work (no coupling) you should find it at around £4.50.

If the prolonged bassoon opening is idiosyncratic what follows is virile, suggestively erotic and even frightening. But it's the transparency in the densest scoring that impresses most. ☺

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