



• AUDIO MILESTONES Dynaco Stereo 70 amp • INVESTIGATION Porky's Prime Cuts

• ON LOCATION Tannoy Loudspeakers • HI-FI @ HOME A unique vintage B&O system





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AMS50 Power Amplifier

New from Musical Fidelity. 50 wpc. Pure Class A. Fully balanced. Bridged. Dual mono. High current.





ABOVE: Triumphant triodes with Opera's Consonance Cyber 880A, p48



ABOVE: Luxurious Levinson, its N°512 SACD player revealed on p28



VINYL: U2's The Unforgettable Fire is re-released on 180g (p66) and Cat Stevens' Tea for the Tillerman is this month's Vinyl Icon (p68)

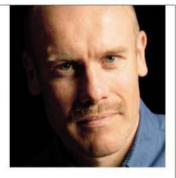
ne glorious side-effect of the wave of nostalgia sweeping through the land is the surge, not just in the availablity, but in the inspired design of new turntables. This month we've the slate-based Reference version of the Jazz turntable, hailing from Musical Life in Germany. The beautifully polished chassis, acrylic platter and versatile unipivot tonearm, with interchangeable wooden arm wands no less, represents yet another flavour to tempt the taste buds of fellow audiophiles.

By why limit the scope of our imagination? What about the possibility of an off-world record player? And no, I've not finally dropped my bag of marbles.

Over 30 years ago, NASA launched its two Voyager spacecraft which, in 1990, finally left our solar system. Both crafts carry a

form of 'time capsule', a record containing spoken greetings plus an eclectic selection of music including excerpts from Bach's Brandenburg Concerto No2 and Louis Armstrong's 'Melancholy Blues'. But this information was not stored on an optical disc.

No sir, this was 1977 and so for its first stab at interstellar contact, the bods at NASA chose to send an LP disc complete with phono cartridge, spare stylus and graphical instructions on how



to build a gramophone! Ok, so this was a gold-plated copper disc in a protective aluminium sleeve and, to squeeze one hour a side, was conceived to rotate at 16.66 rather than 33.33rpm. Nevertheless this was still a 12in disc with a pick-up cartridge perfectly recognisable to Earth-bound enthusiasts.

NASA reckons it'll be about 40,000 years before either Voyager knocks on the door of

'For its first stab at interstellar contact, NASA sent an LP disc'

other planet-bearing systems. So unless the craft are intercepted in the meantime, it's safe to say the exclusive review of ET's turntable won't be appearing on the cover of Hi-Fi News/RR any time soon.

Naturally, future audiophiles will have plenty to discuss once SETI picks up a transmission of Chuck Berry's 'Johnny B. Goode' from the Klingon homeworld.

PAUL MILLER 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



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



JOHN BAMFORD HFN's Features Editor has a penchant for massive speakers and hi-res audio. JB travels the globe for our On Location specials



KEN KESSLER is currently our Senior Contributing Editor and almost singularly responsible for the renaissance in valves and 'vintage hi-fi'



KEITH HOWARD has written about hi-fi for 30 years, and edited Hi-Fi Answers for nine. KH performs our speaker and headphone lab tests



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



JOHN HOWES Foremost collector and archivist of vintage hi-fi, famous for the UK's bi-annual Audio Jumble, John shares his experience with HFN



STEVE SUTHERLAND Worked on Melody Maker and then edited NME from 1992-2000. the Britpop years. Steve brings a unique slant to our Vinyl Release pages







red<mark>dot</mark> design award winner 2006



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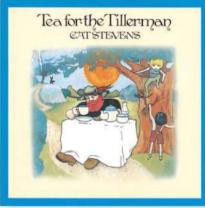
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Audio Research Class D

VALVE SPECIALIST'S FIRST SOLID-STATE INTEGRATED AMPLIFIER PROMOTES HIGH EFFICIENCY

Whether in response to demands for lower carbon emissions or simply a function of the steady improvement in Class D amplifier technology, Audio Research's new integrated amplifier is not simply 'solid-state'.

The transition from thermionic valves to analogue PWM amp design might signal a paradigm shift for this audiophile marque, although it did utilise a similar (Tripath) solution in a multichannel power amp several years ago.

The fully integrated DSi200 headlines a new 'Definition Series' embodying what the

Audio Research Corporation (ARC) refers to as 'new thinking'. The sleek case, reminiscent of the LS26, includes three single-ended and two balanced inputs with balance, mono, invert and mute features. Under the bonnet, this amplifier incorporates an ARC-designed



high-speed Class D power amplifier with passive preamp front-end. With an idle power consumption of 38W, the DSi200 achieves close to 90% efficiency at its rated 200W/80hm power output with claims of 600W possible under dynamic conditions into lower impedances. Frankly, Class D

technology is the only way to achieve these sorts of power outputs from a small case.

The ARC DSi200 integrated amplifier is projected to retail for £4998 when launched in the UK during the first quarter of 2010.

Absolute Sounds Ltd, 0208 971 3909 www.audioresearch.com

Super Audio Denon

DENON REAFFIRMS ITS COMMITMENT TO STEREO WITH A NEW TWO-CHANNEL SACD PLAYER AND AMPLIFIE

As if further proof were needed that stereo is witnessing a resurgence, Denon has announced two new components – the PMA-2010AE integrated amplifier and DCD-2010AE CD/SACD player, both pitched at £1700. For the new player, compatibility with CD and Super Audio CD is a given along with CD-R/RW (MP3 and WMA files). The DCD-2010AE also includes a front-mounterd USB port for playing back music files from iPod/iPhones and USB memory sticks.

The player incorporates core Denon technologies including a new SVH disc mechanism with diecast alloy tray, 32-bit digital processing and 192kHz-compatible DACs.

The partnering amplifier is rated at 2x80W/8ohm and includes six line inputs plus a switchable MM/MC phono stage. Contributing to its substantial 24kg bulk, the PMA-2010AE includes separate power supplies for its preamp and high current MOSFET power amp sections.

Both products are styled with a gently curved 'premium silver' alloy fascia and include full remote control for armchair operation. Denon UK, 02890 279830 www.denon.co.uk

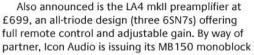


New Iconic Valves

As if to confirm that valve amplifiers are witnessing a similar resurgence to the vinyl LP, Icon Audio has just launched no fewer than three new models. At £1099 there's the mkIII version of its well-received

Stereo 40 integrated amplifier (pictured here). The EL34 model now includes valve rectification (Western Electric 274B) and a 'Tertiary' output transformer with a third winding conceived to compare and compensate for distortion. Otherwise, the claim is for 'no

overall feedback'.



valve power amps, priced at £2599 per pair. These substantial amps are a development of the MB90 mono chassis, employing four KT90s to yield a claimed 150W in ultralinear mode or 100W in triode mode. The two configurations are selected via the front panel. Icon Audio (UK) Ltd, 0116 2440593 www.iconaudio.co.uk

CABASSE IN **PIANO BLACK**

French loudspeaker manufacturer and this month's cover star. Cabasse. is releasing limited edition versions of its MT30 and MC40 range. The Antigua (£549), Jersey (£998), Minorca (£899) and Java (£1598) models all now come in piano black finishes. www.cabasse.com

JANSCH VINYL

After appearing for the first time on CD last year on the Charisma label, Bert Jansch's trio of classic 1970s albums, LA Turnaround, Santa Barbara Honeymoon and A Rare Conumdrum are to be reissued on vinyl via Drag City. www.dragcity.com

MILES 'PHONES

Monster has launched limited edition Miles Davis tribute heaphones which, according to the manufacturer, is the first audio hardware to officially bear the legendary jazz artist's name. These inear headphones are finished in a 'trumpet' gold, have Miles' signature etched into the earpiece and sport 'Kind of Blue' coloured cord. They also come housed in a luxury musical instrument-styled carry case. Miles Davis fans will have to shell out a cool £230 for the privilege. www.monstercable.com

Marantz Blu-ray

Marantz has slipped out its new entry level Blu-ray player, the BD5004. Priced at £450, its supports the latest Profile 2.0 with BD-Live, boasts an HDMI 1.3a output and a 'Pure Direct' audio mode that turns off all non-essential circuitry to improve CD playback. www.marantz.com

Full HD Krell

Long anticipated, Krell's HDMI-equipped and Dolby/ DTS HD compatible S-1200 preamp/processor is finally shipping. Building on the S-1000 processor [Hi-Fi News, Jan '08], the S-1200 utilises a pair of Crystal CS497004 DSP engines to decode all current HD audio bitstreams from Blu-ray while offering nine proprietary Krell music surround modes. All 7.1 channel analogue outputs are available from fully balanced Class A preamp stages employing Krell's' Current Mode' topology. A preamp mode disables all digital circuitry if the S-1200 is used as a purely analogue amplifier.

An optional S-1200U model also offers analogue video up-conversion to 1920x1080p/60Hz via HDMI and 1920x1080p/30Hz via component. Prices are £10,600 for the S-1200 and £12,950 for the S-1200U version.

Krell Industries Inc/Absolute Sounds Ltd, 0208 971 3909: www.krellonline.com



'Budget' Universal

MARANTZ CUTS THE PRICE OF UNIVERSAL BD

No sooner had the ink dried on Hi-Fi News' exclusive review of Marantz's £5000 UD9004 'Universal Blu-ray' player [HFN Dec, '09] than the company has confirmed the launch of a more affordable version, the £2000 UD8004. Clearly inspired by the technology under the UD9004's prodigious bonnet, the UD8004 offers full compatibility with CD, DVD, DVD-Audio, SACD and Blu-ray media, all loaded onto a bespoke 'polymeric alloy' disc tray that forms part of a new Marantz mechanism.



The 7.1 channel analogue output is supported by three separate audio boards featuring a 'current feedback' topology with Marantz's proprietary HDAM-SA2 op-amps and 192kHz/24-bit Burr-Brown DACs. Video processing is supported by an Anchor Bay ABT2015 processor.

Naturally, this is also a Profile 2.0 BD player with HDMI 1.3a connections, onboard decoding for all Dolby/DTS HD audio modes while offering an SD-Card slot for playback of downloaded WMA, MP3 and AVCHD files.

D&M Holdings Inc, 01753 680868 www.marantz.com



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Neat Petite Speakers

NEAT ACOUSTICS UNVEILS 4TH GEN PETITE STANDMOUNTS

Twenty years on from its inception, British-based manufacturer Neat Acoustics has introduced its fourth generation Petite loudspeaker. A very compact two-way bass reflex design, the Petite SX features an unusual staggered port-tuning system said to enhance and control delivery of low-end bass frequencies.

A 32mm diameter rear port is tuned to around 40Hz while an accompanying 50mm rear port reinforces higher bass frequencies.

Up front, the Petite's main bass and midrange driver unit is a 6.5in doped paper cone while the 25mm tweeter dome is made from soft fabric.

The Petite SX cost £1250. with matching stands setting you back a further £203. It also comes in a choice of six 'classic' wood finishes including oak, maple and cherry.

Neat Acoustics Ltd, 01833 631 021, www.neat.co.uk



Visit Hi-Fi News at Bristol

HI-FI NEWS STAGES UNIQUE AUDIO EVENT AT BRISTOL SHOW

Following our packed demonstrations at last year's Bristol Sound and Vision Show. Hi-Fi News will be returning with a new audio event for 2010. This vear's show is a week later, from Friday 26th to Sunday 28th, but the Bristol Marriott Hotel venue remains unchanged.

Opening times for the show are 10am-5pm each day with entrance fees of £8 for adults and £4 for students/senior citizens.

Accompanied children under 16 may enter for free.

Once inside the show, the Hi-Fi News event will be free to enter for music enthusiasts of all ages. Our interactive demonstrations will start on the hour from 11pm to 4pm, with tickets available on the day from our booth on the ground floor where back issues and special subscription offers will also be available. We look forward to welcoming you!



Pro-Ject Stereo Amp

PRO-JECT UNWRAPS ITS ULTRA-COMPACT CLASS D AMPLIFIER

Pro-Ject has added vet another member to its ever-growing small Box series of electronics the £360 Stereo Box (pictured below with matching tuner).

This analogue Class D integrated amplifier measures a mere 103x38x141mm and weighs just 720g. Power is rated at a modest 2x20W/8ohm and 2x30W into 4ohm but Pro-Ject boasts a suitably high efficiency - quoted at 80% only slightly lower than the 90% achieved by the most sophisticated Class D designs.

Around the back are two sets of line level inputs to hook up a CD player, tuner or TV plus left and right channel connectors for your speakers.

An optional Project Switch Box (£125) is also availble if you need a further four additional inputs and this expansion unit is automatically synchronised with the Stereo Box via its Trigger Switch connection, A basic remote control is also bundled. Henley Designs Ltd,

01235 511 166 www.project-audio.com



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Upcoming Events

IMPORTANT DATES FOR YOUR HI-FI DIARY

14 FEB Audiojumble, The Angel Leisure Centre, Tonbridge, Kent

01892 540022; www.audiojumble.co.uk

26-28 FEB Sound & Vision, Marriott City Centre Hotel,

Lower Castle Street, Bristol

www.bristolshow.co.uk 27-28 MAR London High Fidelity Show, Heathrow

www.chestergroup.org

Milan Show 2009

Words and pictures: Ken Kessler



Blessedly, Milan's TOP Audio at the Quark hotel in mid-September put a dent in the pessimism that embraced the audio community in 2009. TOP Audio was healthy, robust and crowded enough to suggest that home entertainment has a future. It was filled with the usual array of wacko tube amps and speakers, together with myriad accessories – signs of life that make one proud to be an audiophile. There was no shortage of new turntables, but more exciting was the selection of both new and used LPs. A second trend involved the number of innovative 'small systems', from iPod docks to down-sized 'proper' hi-fi, reinforcing the belief that while fewer people are prepared to house huge components anymore, neither will they give up sound quality.



As mentioned above, the place was awash with iPod docks and mini systems. It was Yamaha that won my affections with the all-in-one MCR-040 and MCR-140 CD/radio/iPod docks which differ in that the latter allows the iPod to be removed from the unit in a caddy to serve as a remote. Sound was pretty damned good, and they'll suit anyone who needs a 'second system' for the bedroom. www.europe.yamaha.com.



Be Yamamura, still ensconced in Japan, arrived with his latest creations – a pair of monoblock Class A Integrated amplifiers. As expected, details are unavailable but Nonsolomusica will be happy to source them for you. For more information email eugenil@tin.it.



Mastersound's Evolution 845 is a single-ended stereo amp using four of my favourite tubes, the source of its nomenclature. Power is rated at 2x55W in pure Class A – and that's under-stressing the tubes. The rest of the tube line-up includes two ECC82s and two 6SN7s. www.mastersoundsas.it.



WLM Acoustics' Sonata is a tube product that makes me want to convert transistor users, for it screams 'classic': four EL34s in push-pull array is claimed to deliver a useable 2x20W in Class A mode, or 2x35W in Class AB. www.wlmacoustics.com.



Sound & Design uses layers of waxed phenolic Baltic birch plywood for both the enclosures and stands of its S&D ONE_08. The speaker's unique shape is said to distribute vibration more uniformly than conventional box cabinets. www.sound-design.it.



Bewith showed the stylish Monitor H-1 speaker in a variety of gloss finishes that hide the fact that the 417x187x320mm (hwd) rear-ported enclosures are of all-aluminium die-cast construction - said to be a world first. www.bewith.jp.



With all that wood, it had to be Unison Research. The Phono One contains five ECC83s, operating in Class A mode. Settings accommodate cartridges with 20, 47, 100 and 47kohm impedance requirements, with capacitance adjustable in four levels from 100 pF-420 pF. www.unisonresearch.com.



Vexo is new to me, but the Milanese brand has some fascinating models, including the VXSE-KT88/C integrated valve amplifier. The valve complement is a pair of KT88s and a pair of 5814A, rated by the company at 2x15W. A feature of the Vexo design is easy bias adjustment. A similar version is available with EL34s output pentodes on board. www.vexohifi.it.



Worthy of pride of place at the design display in the lobby, and possibly the prettiest products ever, are the new models from Absoluta Sound & Space. Among the curvaceous models, are the Janus 150W monoblock solid-state power amp, the Tersicore 100W/ch solid state power amp, the Partenope 73W/ch valve hybrid integrated amp with MM/MC phono stage and balanced inputs and the Talia hybrid-valve stereo preamp. Let's hope someone picks up the line for the UK! www.absoluta.it.

SHOWBLOG First sight of new products & technology



That's right: €250 for this adorable integrated valve amp from Tektron. Called the TKECL80S-I, it's as minimalist as it gets, accepting one line source and featuring a pair of ECL80s said to deliver 2x1.5W of power. Dimensions are a bijou 230x140x120mm, while it weighs in at a svelte 2kg. The chassis is made from solid timber and the innards are all hard-wired! www.tektron-italia.com.



Hungary's Taylor Acoustic uses thick cuts of solid timber in its designs. This is its Gyrophon SE turntable with wood used wherever possible. Belt-drive with external motor, a second pulley sits on the tonearm side of the chassis. www.taylor-acoustic.com.



Unison Research's S9, in luscious all-black, is a 2x35W all-valve integrated powered by four Russian, directly-heated SV572-10 triodes. www.unisonresearch.com.



Pearl has always shown unusual designs in the past, but the new series, dubbed Evolution, does away entirely with the cabinets, going beyond even Nola and Vandersteen. The Ballerina 301, so named because of the shape, features an isodynamic tweeter and dome mid on an open baffle, with a woofer backed by a minimal sized, ported enclosure fashioned from composites. www.pearlevo.com.

Dr Christian Feickert is known for both his foolproof and easy-to-use advanced turntable tuning devices, as well as a complex and imposing record deck. Seen here is the Woodpecker, his response to customer demand for something slightly more conventional (read: with a rectangular plinth) but with the sophisticated drive and suspension of the bigger models. Feickert also insisted that it would be able to accept arms up to 12in lengths, via an elongated aperture for the arm bases. www.feickert.de.





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Porky's Prime Cuts

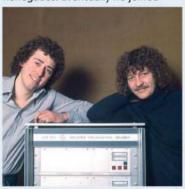
Just who was behind the mysterious messages found in your record run-out grooves?

'Porky', 'Porkie', 'Pecko' and 'A Porky Prime Cut' - various inscriptions that eagle-eyed vinyl owners will have noticed engraved into the land between a record's run-out groove at the end-of-side on countless albums (and singles) over the years. Clearly this was the handiwork of a mastering engineer operating the lathe, somebody cutting the lacquers for subsequent replication and pressing into records. And clearly it was an engineer with a sense of humour. But who exactly was 'Porky'? Where did he work? And where is he now?

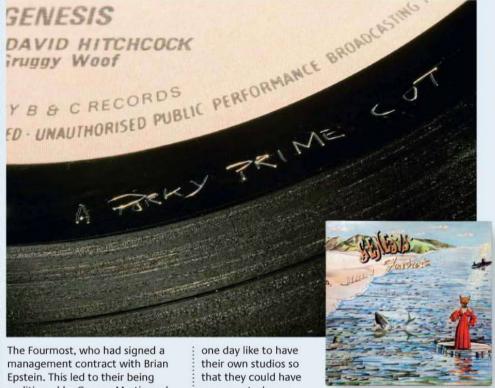
THE LIVERPOOL SCENE

As any sound engineer working in the music recording business will tell you in an instant, 'Porky' is one George Peckham, born in Liverpool. His illustrious career in music dates back to the late 1950s when rock 'n' roll groups began to thrive in Liverpool's 'jive hives' that soon led to the 'Mersey Sound' era.

George played guitar in various Liverpool bands including The Renegades. Eventually he joined







auditioned by George Martin and signed to EMI's Parlophone label. With Epstein as their manager, The Fourmost had access to early Lennon/McCartney compositions. The band enjoyed moderate UK chart success. One single, 'Auntie Maggie's Remedy', released in 1966 : George quit The Fourmost after

[Parlophone R 5528], is in fact credited to George as composer.

It was during recording sessions at Abbey Road that ... George seems to

have become fascinated with the mechanics of music production and record cutting.

As a member of one of Brian Epstein's bands he was mixing (no pun intended) in the right circles, hanging out with engineers in EMI's studios. He had the opportunity to watch The Beatles recording, would guiz the engineers about how they did things, and remembers John Lennon commenting on one occasion how The Beatles would

more control over

their sound. According to Peckham, Lennon thought their vinyl records never sounded quite as good as they remembered the master recordings sounding in the studio control room.

Tired of life on the road in a band

securing a job as a trainee cutting engineer with the fledgling Apple Corps in November 1968. Having purchased the building at

number 3 Savile Row in London's West End. The Beatles set about building a studio from scratch.

A CUT ABOVE

'Peckham

watched The

Beatles record'

Peckham soon found himself working alongside several ex-Abbey Road engineers at the newlyformed Apple Studios and became responsible for cutting acetates of rough mixes for The Beatles to listen to on an almost daily basis. And through his many contacts made >

ABOVE: 'Porky's Prime Cut' from the runout groove of Genesis' 1972 Foxtrot LP

LEFT (TOP):

George Peckham (right) pictured with Denis Blackham in 1976; Denis worked with George at the **Master Room** during the 1970s and later at the **IBC** studio

LEFT: It was following his mastering of George Harrison's first solo record that George was in demand

with musicians during his time in a band himself, he was soon bringing in outside to Apple's new vinyl cutting room.

HITTING THE BIG TIME

Soon Peckham was cutting records that shall forever be documented in the annals of popular music history. Having mastered George Harrison's All Things Must Pass album Harrison requested Peckham travel to America to oversee the mastering of the US release of the album and ensure that it sounded identical to the British release.

On his return, record producer Tony Visconti introduced Peckham to a 'folk singer' he'd been recording who he wanted to become 'more electric', a certain Marc Bolan of Tyrannosaurus Rex. Peckham also made a great impression on Jimmy Page and John Paul Jones who it is alleged were delighted with the sound of Peckham's cut of Led Zeppelin's 4 Symbols LP and had him also master Houses Of The Holy.

Through the 1970s and '80s the artists for whom George Peckham cut records reads like a Who's Who of the music industry, crossing all genres, from the likes of Slade, Black Sabbath, Van Der Graaf Generator and Genesis through to countless bands of the post-punk era. He became a fan of the Manchester music scene too and often worked with the late Martin Hannett, record producer and an original partner in Factory Records with Tony Wilson.

After Apple, Peckham went to work at The Master Room studio in Soho, followed by IBC studio, just



ABOVE: The Monty Python Matching Tie and Handkerchief LP featured two arooves on side two, so that different material would be played depending on where the listener dropped the stylus. The record and sleeve are pictured below left

up the road from BBC Broadcasting House in Portland Place, soon after it was purchased by Chas Chandler. As engineer Brain Carroll recalls:

'I received a call from Chas Chandler who used to tell me the only reason that Hendrix was cutting elsewhere was that his tracks were now cut in stereo, which I did not do at the time. Chandler had been using IBC for some of the acts he produced including Slade and he wanted to know if the studio was worth buying. Within weeks he was the new owner. The stereo room was still in working order and he

made it even better by employing the legendary George Peckham, which ensured that the place was full of laughter.'

Master Room during the 1970s and worked at IBC studio too.

'Around about 1970 it became something of a trend to mark one's work with a nick name. As I was reading Lord Of The Rings at the time, Bilbo was the name I chose.' George, of course, was 'Porky'.

After his stint at IBC studios George raised funds to build his own studio in the late 1980s, Porky's Mastering in London's Shaftesbury Avenue. Subsequent to Chas Chandler selling IBC George was able to purchase some of the studio's mastering gear for his new venture. Denis Blackham recalls: 'IBC refurbished its stereo cutting room in early 1973. It was a modern, acoustically treated room with the latest Neumann VMS 70 cutting lathe, Ortofon cutting head and amps, plus a custom made console with a variety of equipment. The room soon became one of the best in London, and many hits flowed from that cutting lathe's turntable. The strange thing is, that lathe

'On Side 2, Peckham cut two parallel grooves'

eventually found a new home at Porky's Mastering, where I later worked - a small world!'

Blackham did indeed join his

old colleague 'Porky', helping build a CD mastering facility at Porky's Mastering. The 'CD Room' opened in October 1989.

George Peckham ran Porky's Mastering for some 15 years but is now said to have retired from the music industry. Currently he is selling some of his personal memorabilia on eBay [see http://stores.shop. ebay.co.uk/Porkys-Prime-Cuts]. He is also rumoured to be writing his life story, which is sure to be full of hilarious tales of the swinging '60s, antics during life on the road, and countless stories of partying with the glitterati of the music industry.



BELOW RIGHT:

Still firm friends - George (right) and Denis Blackham aka 'Bilbo' and 'Porky', pictured in 2007

MINISTRY OF JOKES

Peckham mastered several Monty Python LPs, including most famously the Pythons' fourth album Free Record Given Away With The Monty Python Matching Tie and Handkerchief (to give it its full and proper title!), released in 1973 on the Charisma label. It was dubbed

> a three-sided album because on Side 2 Peckham cut two parallel grooves which meant the listener heard different comedy sketches depending on where the stylus landed on the record. Denis

Blackham, an engineer who has run his own CD mastering facility at Portree on the Isle of Skye since 2002 [see www.skyemastering.com] worked with George at The

hurring The - Haverer vine

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Home Cinema Choice, March 2009



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Cabasse La Sphère (£90k w/o amps)

Arguably the most iconic (and costly) loudspeaker on the planet, Cabasse's La Sphère also embodies a deal of innovative driver and digital crossover technology Review: **Keith Howard** Lab: **Keith Howard** and **Paul Miller**

f you felt watched by the 'eyeballs' of Cabasse's Baltic Evolution speakers [see HFN July '09], then a pair of La Sphères is likely to give you an alien persecution complex. Yet this four-way coincident design, that is, one in which the acoustic centres of all four drive units occupy the same position in space is the ultimate logical progression for Cabasse from the two-way coaxial drive unit used in its Iroise 3 [HFN July '09] and the three-way coaxial driver of the Baltic Evolution.

In the latter case the coaxial array works down to about 80Hz, then hands over to a separate subwoofer. In the case of La Sphère, hidden within its large, yes, spherical cabinet is a 22in bass driver, positioned in line astern behind the three-way coaxial array and exhausting via three annular vents that surround it.

PROCESSING UNIT

Of course, digital delay is required to align the acoustic centres of the bass driver and three-way array, which is provided in the accompanying processing unit. The result is a speaker with remarkable consistency of performance off-axis, freed of the time misalignments and lobing effects which occur with non-coincident drive units.

Crossover filtering and EQ is also applied in the processor, including three variable parametric filters which can be deployed as required during the inroom setup procedure that is included in the asking price. This process utilises proprietary Cabasse software and typically takes only an hour or so.

One disappointment is that the processor works with an internal sampling rate of only 48kHz, although it does have 24-bit resolution. At best, then, La Sphère can only do partial justice to hi-res 24/96 material, let alone

RIGHT: Alien in appearance, La Sphère is an exemplar of the Bauhaus principle that form should follow function. Four coincident drivers and a spherical cabinet have many advantages that with 176.4 or, for that matter, 192kHz sampling rate.

It's worth reiterating at this point what makes the Cabasse approach to coaxial speaker design distinct from other manufacturers'. The familiar approach to designing a two-way coaxial speaker is to place a tweeter at the apex of the cone of a midrange or bass-mid driver. Particularly if the tweeter is a dome unit that resides where the dust cap would otherwise be, it is possible with this configuration to align the two drivers' acoustic centres and thus go the step beyond coaxial to coincident.

UPS AND DOWNS

The upside of this approach is that the cone constrains the output of the tweeter such that the directivity of the combination is smoothly maintained through crossover - there is no rapid transition from a midrange driver that is already beginning to beam its output to a tweeter which, because its diaphragm is so much smaller, distributes its output more widely. This change in directivity has no effect on the speaker's axial frequency response but does cause unevenness in the off-axis output, potentially colouring the sound of early room reflections and the reverberant field.

Of course there's a downside too: the cone horn loads the tweeter, and this typically adds coloration.

Cabasse's approach to constructing coaxial drivers overcomes



GILDING THE LILY

Christophe Cabasse, son of company founder Georges Cabasse, says this about the room setup procedure. 'Using the software to tune the speaker to the room is like setting up a racing car for a particular track – it's the same principle. Throughout the processor we apply identical filtering to both channels, to ensure that their phase responses remain the same. In 90%

of rooms the three parametric filters are used at low frequencies, to tune the bass. The factory crossover and driver EQ settings are left alone: we just adjust the relative output level of each driver and configure the parametric filters as required. We are working on an automatic procedure for this – but we're not happy yet that it gives the best results.'



this problem. The dome tweeter, which has only very shallow horn loading, forms part of a planar array of drive units, the remainder of which have domed annular diaphragms disposed around the tweeter. like doughnuts of increasing diameter Control of directivity may not be as tight as with the cone approach, but the horn coloration problem is eliminated. While this approach works fine down to upper bass frequencies, an annular drive unit is clearly not the way to achieve maximum low frequency radiating area within a given outer diameter. So for moving large volumes of air in the bass, Cabasse resorts - as already noted - to a large integral woofer in the La Sphère, mounted behind the annular array and time-aligned with it using digital delays. Mounting all this in

flat panels, a sphere is of high inherent stiffness, thereby suppressing 'cabinet talk'. It also lacks parallel internal surfaces, which reduces the problem of internal air resonances. And the curved surface of a sphere offers no sudden change in acoustic impedance, as the extremities of a flat front baffle do, as the wavefront spreads out from the drivers, so obviating diffraction effects which occur because of re-radiation of the sound from cabinet edges.

If there is such a thing as a perfect form for a loudspeaker, the sphere is it.

STAND THAT DELIVERS

Were it simply perched atop a column stand, though, Cabasse's finest would look positively ungainly – like an oversized golf ball on its tee, awaiting someone of Paul Bunyan's stature to whack it and shout 'Fore!' to the next

'We were supplied with £18k-worth of Cabasse's power amps' county. So Cabasse had the good sense to commission French designer Sylvian Dubuisson to create a diecast stand that is both intriguing to the eye and of high stiffness. Echoing the curved form of the

speaker itself, it comprises a continuous, interlocking, sinuous aluminium frame that mates to both the speaker and circular base plate via a trio of compliant bushes. There is a thin central column but its role is not structural: it hides the cables that connect the four drivers to the four pairs of input terminals at the rear of the base.

We were supplied with £18k-worth of Cabasse's own power amplifiers which are based on a Bel Canto Class D design, itself built around B&O ICEpower modules. But the possible variations here are endless. If amplifiers of different gain are used, this can be compensated for in the configuration software – but note the comments on amplifier sensitivity made

a spherical cabinet,

constructed from

composite skins

with constrained

layer damping in

between, brings

many advantages

over a conventional rectangular

box. Unlike

the latter's

LOUDSPEAKER

in PM's processor lab test [see opposite]. The front-end of our test system included the Marantz UD9004 universal disc player [HFN, Dec '09] and fabulous Audio Research REF 5 valve preamplifier [HFN, Jan '10]. Oh, and the opportunity to hear one of the world's most remarkable speakers saw a number of HFN regular writers arrive for the listening session, arms piled high with discs.

REITH LISTENS IN

To begin with the good news, the Sphères generated some of the most precise lateral imaging I have ever heard. Ken Kessler played Keb' Mo's Peace... Back By Popular Demand and it quickly evinced these speakers' exceptional ability to organise and control elements laterally in the soundstage.

I stress 'laterally' because, as the listening continued, I became distinctly less impressed with the Sphères' ability to do image depth. Knowing the sampling rate of the speakers' processor to be 48kHz, I didn't bring along any hi-res material - but John Bamford had about him one of my favourite orchestral recordings in the form of Classic Records' 24/96 DAD of Symphonic Dances, so on it went.

I know this recording intimately but might initially have mistaken it via the Sphères, which didn't deliver the whipcrack dynamics and vivid tonal colours I know to be this recording's stock in trade. As other tracks followed (Eric

Clapton, Enigma, Mozart, James Taylor, Joni Mitchell) this became my abiding impression of the Sphères. They didn't quite deliver the dynamics and resolution, the air and effortless insight that I expect of a top-flight loudspeaker.

JOHN BAMFORD'S BANTER

Looking like a stage prop from They Came from Outer Space, La Sphère's intimidating presence translated to a mighty impressive sound, one clearly capable of filling a very large listening room

'They behaved

like smaller

speakers by

being free

from bombast'

with an immense soundstage. Dave Wilson's natural recording of organist James Welch on Discovery and Music for Christmas [Wilson Audiophile

WCD-806/8419] demonstrated La Sphère's ability to deliver bass that produced colossal pressure waves from low pedal notes without a hint of stress.

Dire Straits' 'So Far Away' from Brothers In Arms revealed that La Sphère has a measured and 'fast' character that some listeners might find dry and analytical, depending on taste. Certainly the musical presentation was taut and controlled, leading edges of notes quickly stopping and starting. While never appearing unduly on edge, there was a sharp presence to Mark Knopfler's vocal that made for an explicit overall presentation, even if the feeling of military precision remained. >

La Sphère € 0

ABOVE: Balanced inputs and four sets of filtered balanced outputs with crossover points set at 150Hz, 800Hz and 1.4kHz, time alignment for the four acoustical centres and parametric room equalisation all accommodated within its DSP

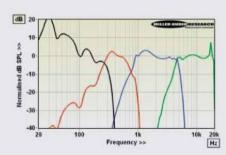
LAB REPORT

CABASSE FOUR-WAY PROCESSOR

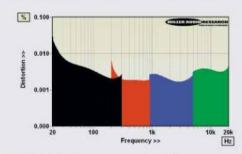
An intrinsic part of La Sphère, this four-way digital crossover incorporates a 48kHz input ADC followed by digital delay and DSP filter banks that address four separate DAC and balanced analogue outputs. These are labelled 'Bass', 'L.Mid', 'H.Mid' and 'High' and their respective bandpass responses are plotted on Graph 1, below. The apparent notches in the response at 250Hz and 750Hz are 'filled in' by the acoustic responses of the coincident bass and mid drivers. The 24dB/octave high-pass and steeper 70dB/octave low-pass filter shapes are also revealed, along with corrections for room modes in the speaker's forward response. Note also the slightly premature 19.9kHz cut-off following a +7.5dB peak at 17.5kHz.

Within the frequency range (passband) of all four filters, distortion is impressively low [see Graph 2, below] - just 0.008% at 40Hz in the Bass section, 0.005% at 200Hz in the L.Mid section and 0.002% at 1kHz and 5kHz in the H.Mid and High filter sections, respectively. It is possible to marry the Cabasse processor with any high input sensitivity power amplifier(s), but care needs to be taken with matching. To accommodate the +20dB headroom required by the Bass arm [black trace, Graph 1 below] there is a loss between processor input and output of between 10-20dB through the remaining arms. As the processor's input ADC clips at 4V, this limits the available processor output level to 0.4-1.3V (300Hz-20kHz). Thus the input ADC may clip before sufficient output is obtained from the processor to adequately drive the partnering power amps.

Readers are invited to view a full QC Suite report for the Cabasse 4-way processor/crossover by navigating to www. hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: Bandpass filter frequency responses through 'Bass' (black), 'L.Mid' (red), 'H.Mid' (blue) and 'High' (green) outputs (1V output, balanced in/out)



ABOVE: Distortion versus passband frequency through 'Bass' (black), 'L.Mid' (red), 'H.Mid' (blue) and 'High' (green) outputs (1V output, balanced in/out)

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 Tall Value Holy		

Maximum output/Impedance	7.1Vrms / 86-97ohm			
Gain (100Hz/300Hz/1kHz/10kHz)	-17.0dB/-12.7dB/-10.7dB/-10dB			
A-wtd S/N ratio (each bandpass)	89.6dB/93.4dB/88.7dB/87.8dB			
Frequency response (20Hz-20kHz)	+22.4dB to -30dB			
Distortion (40Hz/200Hz/1kHz/5kHz)	0.008%/0.005%/0.002%/0.002%			
Dist. vs. input (100mV-4V, overload)	0.0009-1.1%			
Power consumption	13W			
Dimensions (WHD)	440x90x320mm			



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LOUDSPEAKER



ABOVE: Four pairs of input terminals provide separate access to each of the drivers and allow any mix of power amplifiers to be used between speaker and processor

PAUL MILLER MUSES

Love them or loathe them, you simply cannot ignore the Sphères. Their exceedingly coherent, seamless sound seems wholly disassociated from the spherical cabinets themselves. Firing from the long wall of our highceilinged venue, the music quickly suffused the wood-panelled room leaving us staring at those huge composite statues as if they were wholly inert. One of our number fired-up Clapton's Just One Night and the live acoustic flooded out before us despite a sense of control and restraint pervading the musical scene, holding both the vibrancy of his guitar and raw edge of his voice in check.

James Taylor on SACD elicited much the same reaction, the speakers carefully delineating the slap of percussion, the thrumm of strings and projection of his voice, all the while suppressing some of the vibrancy and passion of this 70's recording. There is clearly oodles of detail here, extracted with deft efficiency but delivered with an all-too-cool sense of the dramatic. I would dearly love to hear the Sphères with warmer, richer-sounding amplification.

READY, STEADY KEN

Once you get past the looks and believe me, these speakers create an inescapable presence in the room - the Cabasses are deceptive. It's true that the first characteristic that I noted upon hearing them a few years ago in Paris was the scale of the soundstage, and their ability to fill a huge listening space. Equally, though, they also behaved like smaller speakers by being free from bombast.

Are those contrasting, mutually-exclusive characteristics? Perhaps. But what I'm trying to identify is that the former - a huge soundstage - invariably suggests a juggernaut of a system. With the Cabasses, oddly enough, they lack a sense of overwhelming majesty. Some might argue that 'an impressive sound' is not a realistic sound, but I expect this of units this size. If not, then why bother?

If the Cabasses do anything bordering on the extraordinary, it's also stereo-related rather than tonal: they complement the above sense of scale with superior image placement and spectacular width, if not front-to-back depth. Within this is sound that borders on the clinical, although it's not clear whether this is due to the electronics or the speaker themselves. O

HI-FI NEWS VERDICT

A tour de force of coincident loudspeaker design, Cabasse's La Sphère impresses both physically and visually and, with sympathetic amplification, sonically. No other speaker in the world is built or looks like this, and its single-minded pursuit of a design ideal is uncompromising. But while we liked aspects of its sound, particularly its imaging, questions remain about whether we heard it at its best.

Sound Quality: 80%

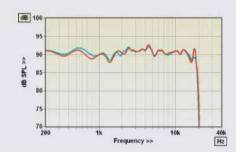


LAB REPORT

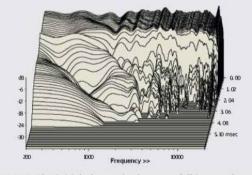
CABASSE LA SPHÈRE (£90k inc filter)

Conventional measurement of speaker sensitivity doesn't apply in an active system so the axial frequency response curves [see Graph 1, below] have been normalised to 90dB SPL at 1kHz, which is about the average of the two Cabasse models we've measured previously [HFN July and Dec '09]. As the response curves show - and as you'd expect of a speaker that has a digital processor to provide crossover filtering and EQ - the La Sphère has an essentially flat response albeit with a slightly convex trend that adds a little presence band emphasis between 2kHz and 5kHz. It may be a surprise to see frequency response error figures of ±7.0dB and ±8.9dB in the test table but this is largely due to electrical roll-off in the processor, which occurs a little earlier than you might expect given that the internal sampling rate is 48kHz not 44.1kHz [see processor Lab Report, p20]. Reducing the upper limit of the measurement to 18kHz results in the much more impressive figures of ±2.5dB and ±1.9dB. Pair matching error to 20kHz is high too at ±2.8dB but again this reflects a significant disparity in the extreme treble. Limiting the measurement to 17kHz reduces this to an acceptable ±1.2dB.

Because the woofer is buried within the enclosure it wasn't possible to perform a proper near-field response measurement at LF but inserting the measurement microphone into a woofer vent suggested a -6dB point (re. 200Hz) at about 25Hz. Roll-off below 30Hz is steep, indicating the use of electronic EQ. Because of pre-response caused by the digital processor's linear phase filters the cumulative spectral decay waterfall has a deceptively large initial plateau. Beyond this the decay in output is mostly fast but with some breakup modes apparent between 2kHz and 8kHz, KH



ABOVE: Cabasse's DSP ensures an essentially flat response but also limits the bandwidth to 20kHz



ABOVE: The initial plateau in the waterfall is a product of the DSP, but subsequent resonant decay is swift

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	N/A
Impedance modulus min/max (20Hz-20kHz)	N/A
Frequency response error (200Hz-20kHz, L/R)	±7.0dB / ±8.9dB
Pair matching (300Hz-20kHz)	±2.6dB (see Report)
LF/HF extension (–6dB ref 200Hz/10kHz)	25Hz / 19.9kHz/19.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	- / 0.5% / 0.2%
Dimensions (HWD)	1400x700x700mm

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Musical Life Jazz II Ref (£2990)

This German turntable comes with one or two optional extras and its plinth is cosmetically matched to the Fortissimo II unipivot's wooden arm tube.

Review: Steve Harris Lab: Paul Miller

atural materials to give natural sound? That seems to be at least part of the philosophy behind the intriguing products of Musical Life. They come from Schmallenberg, in the state of North Rhine-Westphalia, which includes the traditional heartland of German industry, the Ruhr.

Before he set up Musical Life there in 2003, the affable Michael Stolz worked in the manufacturing industry. Though not an engineer by training, his job gave him experience in the machining of metal and acrylic parts. He built his first turntable at the age of 15 and later owned Clearaudio turntables, which he then modified in pursuit of better sound.

TEUTONIC WEIGHT

With massive construction and platters the size of garden rollers, Musical Life's biggest models follow the Teutonic highmass approach. The Conductor Mk II, with its beautiful 60mm-thick slate plinth, weighs in at 130kg. So, substantial though they are, the Jazz Mk II and the Jazz Mk II Reference reviewed here are the babies of the range.

This time the 50mm-thick plinth is made up sandwich-fashion from HDF and MDF, wrapped in fine-quality veneer with a piano lacquer finish. Our sample came in the spectacular Zebrano wood grain, but if you want a quieter life you can choose Makassar Ebony, Ash or Rosewood.

For the standard Jazz Mk II, that's the whole story, but the Jazz Mk II Reference has its own solid foundation in the shape of a weighty slate platform, 20mm thick and securely bolted on. The turntable's whole 20kg weight is supported on three adjustable sharp-pointed cone feet.

Bolted to the top of the plinth is a metal arm mount plate. Musical Life follows the Linn mounting standard which is also common to Jelco and Pro-Ject arms, but

RIGHT: Arm height can be adjusted accurately with the help of the stop screw to the side of the arm pillar. An optional-extra VTA adjuster allows height adjustment during play

plates are also available cut for SME or other tonearms.

Sunk into the centre of the plinth is the main bearing. An 11mm steel ball fits into a cup machined in the bottom end of the 12mm diameter main shaft and runs on the Teflon thrust pad below. A shouldered boss shaped like a top hat, the top of the shaft carries the 25mm thick acrylic platter. The platter fits snugly on the carrier boss - but even so I found that it was possible to rock the platter slightly.

Machined into the platter's top surface is a shallow central recess, but for some reason this is fractionally smaller than the 50mm radius needed to clear record labels if they stand proud of the disc. It is intended that you place records directly on the acrylic, although a 4mm-thick cork platter mat and 450g slate record weight are available as extras, as is a dustcover.

Drive for the platter comes from an AC synchronous motor hidden in the plinth, with a large single pulley. Unusually, the endless rubber belt is square in section, and the rim of motor pulley is grooved to fit and quide it. It needs care to put the belt on correctly, since if you give it an

unintentional twist you will see it vibrating like a violin string where it comes under tension from the motor pulley. Michael Stolz explains that the advantage of the guided square belt is that it does not move up and down on the rim of the platter, as a round-section belt would tend to do.

The Jazz Mk II Reference comes with a chunky external power supply and control unit, which synthesises low-voltage AC power independently of mains frequency. It provides the motor with 9V at appropriate frequencies for 33.3 and 45rpm; the two phases required by the motor are supplied separately in each case.

There are push-button switches for on/ off and speed change, plus separate fine adjusters for both speeds. Start-up is very rapid, full speed being reached in around three seconds.

PLAYING FORTISSIMO

Our Jazz II Reference came with Musical Life's Fortissimo II unipivot arm, which, despite its name is the least expensive in the range [see boxout]. On this arm the signal wires exit through the top of the bearing housing, but the free cable then





has to be attached by means of a P-clip to one of the three arm pillar mounting bolts.

This may seem a clumsy arrangement, but it allows a continuous unbroken run of high-quality Finewire C37 cabling from the cartridge pin connectors to the RCA phonos at the other end.

Another arm pillar bolt, that nearest the platter, is used to attach the thread-andweight bias compensator, Encountering this, I wished that Musical Life could have adopted VPI's neat trick of making a twist in the signal wires to give the anti-skate force instead. You can adjust the position of the hook, but if you rotate it sufficiently far to keep the dangling weight from coming too close to the record, it gets too near the signal-cable curving overhead.

Into the front end of the wooden main tube fits a nicely-machined extension, designed on the same principle as Clearaudio's arms. A single bolt secures a small circular cartridge-mounting plate, which can be rotated as well as moved fore-and-aft, thereby adjusting the arm's offset angle as well as its effective length.

Eager to listen to the Musical Life combination, I first installed the faithful Ortofon Kontrapunkt A. Arm height is adjustable at the pillar but at first I found it difficult to get the arm low enough to bring the arm tube, or the parallel lines which Ortofon has helpfully printed on the side of the cartridge, horizontal.

Now, the Ortofon is not exactly the Ronnie Corbett of cartridges, so this was puzzling. But I soon saw that the movable arm bearing housing had been prevented from moving down fully by fouling the arm mounting bolts which carried the cable P-clip and bias compensator device. However, with a bit of fiddling I was able to get it past these so that the arm was just low enough. Then I realised that there still would not be enough adjustment to accommodate cartridges shallower than the Kontrapunkt, of which there are many!

Later I learned from Michael Stolz that the optional 4mm cork platter mat is supplied, not as a sound quality tweak, but to overcome this height problem. But he added that the turntable can be expected to sound as good, or better,

without it. An optional-extra VTA adjuster is also available, by the way, if you want to be able to adjust the arm height during play.

BLACK VELVET

With everything now set up, I rounded up the usual black vinyl suspects and started with Harry James' The King James Version [Sheffield Lab LAB-3]. I felt that the dynamics were a little softened, sometimes giving a sort of velvety quality, which could make the record sound a little less like the direct-cut that it is, and more like a conventional LP of the 1960s.

ABOVE: While the standard Jazz Mk II deck runs straight from the mains, the slate-based Reference model comes with Musical Life's elaborate frequency-synthesiser power supply

In the midrange, there was a slightly thickened, dulled quality to the sound of the brass section. Although the bass was full and convincing in terms of weight, it could occasionally show a slightly one-note quality and I felt that there wasn't quite enough control to make it really satisfying

'The Musical Life

player shone more

as soon as it came to

a less complex mix'

in the long term. Yet on the James band's great drum feature, 'Cherokee', the bass drum and tom toms sounded big, bold and exciting enough.

In the beautifully constructed 'Fast Car', from Tracy

Chapman [Elektra 960 774-1], the deep notes of the electric bass were there as a foundation to the music, but were not especially well defined either in pitch or timing. Chapman's voice came over well, though with a very slightly veiled quality. Moving on to 'Across The Lines', the big synthy bass sound could have been more defined and dramatic. But with the a cappella drama of 'Behind The Wall', there was nothing to get in the way, and the song came over with great power despite what I was now beginning to think of as a slight coarsening of the midrange.

Maybe it's not the kind of track that really demands low coloration, but Eric Clapton's 'Motherless Children' from 461 Ocean Boulevard [RSO 2479 118], needs clarity and precision if it's really going to sing out of the speakers. Here the power of the bass seemed to see it through effectively in terms of overall impact, although I wanted to criticise its accuracy.

Backing instruments tended to gel together a little, rather than being easily perceived as separate strands. But Clapton's vocal drifted effectively over them all, while the slide guitar swooped and soared. As with the Tracy Chapman 🗇

THE UNIPIVOT

A special feature of the Musical Life Fortissimo Mk II tonearm is its wooden tube, with a choice of woods - in case you might prefer Makassar Ebony or Rosewood to the plain Ebony of the review sample. The wood section is very nicely made and the metal parts are finished to a high standard. Musical Life's pricier arms have magnetic bearings, but underneath its fine exterior the Fortissimo Mk II is a fairly basic unipivot design. The cylindrical housing conceals the downwardfacing pivot 'point', actually a small steel ball which is held captive at the tip of the inverted pivot post itself. This ball runs in a Teflon cup. As with many other unipivot arm designs, the counterweight is eccentric, making its centre of mass low enough to give some stability. Cartridge azimuth can easily be adjusted by rotating the counterweight through a small angle.

TURNTABLE



ABOVE: The tonearm has an eccentric brass counterweight and thread-andweight bias compensator. Signal wires are continuous from headshell to phonos

album, the Musical Life player shone more as soon as it came to a less complex mix, in this case the easyon-the-ear 'Give Me Strength'.

Moving on to the sensation of 1978, Dire Straits [Vertigo 9102 021] this turntable combination really did deliver the most important parts of the music; Knopfler's 'Sultans Of Swing' vocal was clear and relaxed, the lead guitar singing out to complement it. The rhythm parts seemed almost to retreat to the edges of the soundstage, encouraging you to listen to the main lines, all over a solid bass.

IAZZ AND CLASSICAL

For a different kind of virtuosity. I put on Action: Oscar Peterson Vol 1 [MPS 68.073], where the pianist stretches out magnificently, with impeccable support from Ray Brown and Ed Thigpen. The sound was smooth and welcoming, even on the brash opening of the first track, 'At Long Last Love', where perhaps both pianist and engineer had yet to find the right levels. When they did, the piano sounded full-bodied and mellow, making for compulsive listening.

Then came Daniel Barenboim with the English Chamber Orchestra in Mozart's Piano Concerto in C. K467 [EMI ASD 2465]. Although the opening conveyed the usual magical sense of space, as the movement progressed there seemed less of it than I'd expected within the orchestral sections. Perhaps, although the double-basses did have some presence, the clarity of the low bass sound was not sufficient to clue you to the scale of the acoustic. Strings were not too bright or fierce but, by the same token, not particularly well detailed. And although I felt the piano was

presented attractively with a good body to the sound, it was not as exquisitely detailed as it can be with this recording.

Although my snapshot comments above relate to one specific cartridge, when I tried others the results were generally consistent. I also tried the effect of a 500g platter weight, which I believe would have had much the same effect as Musical Life's slate one. This did give more image focus to acoustic or electric bass, but also made the mid just a little harder or more forward, giving a slightly shouty quality to female vocals.

I found it hard to sum up my feelings about the Musical Life combination, until the designer confirmed what I had almost guessed, the fact that his musical interests were classical, jazz and blues. I think it is with acoustic recordings that the sound, which in this empirically-developed design seems to balance refinement against a tailored softness at the frequency extremes, comes closest to the promise of its brand name. \circ

HI-FI NEWS VERDICT

With a notably stable quality and good suppression of surface noise, this turntable and arm sounded inviting and 'forgiving', though with a distinctly tailored balance and some limitations of detail and bass definition. In terms of engineering content, neither seem to offer specially good value compared with UK products from SME or Michell for example, despite the fine quality of many parts and the excellent finish.

Sound Quality: 73% 0 - - - - -

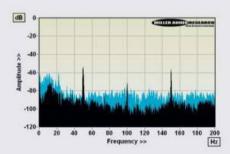
REPORT

MUSICAL LIFE JAZZ II REF (£2990)

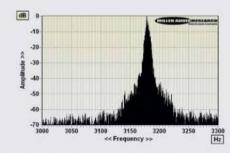
While Musical Life's square-section drive belt is designed to sit snugly within its slotted motor pulley, only one of its four rubber surfaces is optimised for the purpose. Rotate the belt into one of the three possible 'wrong' orientations and it's possible to set up a resonance along the drawn length of the belt as it exits the periphery of the platter and joins the pulley. This is simply a matter of tolerance - the belt's section is evidently not precisely 'square'. Once running smoothly, our sample was also running nearly 1% fast as evidenced by the shift off-centre of the wow and flutter tone to a slightly higher frequency [see Graph 2, below]. While the speed error will not be especially audible, it is easily corrected via adjustment of the frequency-synthesising PSU. Low-rate speed variations are impressively low at 0.02% (peak) and flutter, largely lying within a tight ±10-15Hz, is perfectly acceptable at 0.04%.

There is evidence of some mild breakthrough at exceptionally low (1-3Hz) frequencies [indicated by the peak at the far left of Graph 1] measured through both the bearing and a vinyl groove, but hum at 50Hz, 150Hz etc has a greater impact on bringing down the rumble figure to -60.8dB (DIN B wtd) on our standard test rig. Evidently the wooden armtube and lack of internal screening leaves the deck a little too 'open' to external interference. Audiophiles need to pay closer attention to this than usual when setting up the MkII Reference.

Readers are invited to view a full QC Suite report for the Musical Life Jazz Mk II Reference/Fortissimo Mk II turntable/arm package by navigating to www.hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: Unweighted bearing rumble from DC-200Hz (black infill) versus silent LP groove (blue infill) re. 1kHz at 5cm/sec. Note hum pickup at 50Hz



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/ sec (plotted ±150Hz, 5Hz per minor division). Slight speed increase causes a minor gain in pitch

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.65rpm (+0.9%)
Time to audible stabilisation	4sec
Peak Wow/Flutter	0.02% / 0.04%
Rumble (silent groove, DIN B wtd)	-60.4dB
Rumble (through bearing, DIN B wtd)	-60.8dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-53.6dB
Power Consumption	13W
Dimensions (WHD)	470x140x370mm





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Mark Levinson No512 (£12,000)

Somewhat late in the day, and limited to two-channel, this high-end SACD player clad in sombre black nonetheless reveals a wealth of colour and musical nuances Review: Keith Howard Lab: Paul Miller

dd timing, you may think. As SACD and DVD-A celebrate - if that's the word - a decade of underachievement as CD's putative successor(s), with DVD-A now moribund and SACD reduced to the status of a niche music carrier, Mark Levinson releases its first CD/SACD player. Not a universal player, note - the No512 has no truck with music on DVD-V or DVD-A, let alone BD - nor even one able to unlock the full potential of multichannel SACDs, since it is stereo only. Ironically, Mark Levinson the man, as opposed to Mark Levinson the company (with which he has had no association for many years), has long been a vocal advocate of SACD, but only now does a product bearing his name support the format that, in the interim, has become a cul-de-sac in audio's tree of life.

IT OUGHT TO BE GOOD

With this limited remit, and at this high price, the No512 had better be a stonker. Aesthetically it gets off to just the right start. I've always admired ML's understated approach to styling. There's nothing flashy, nothing garish, nothing to titillate the nouveau riche here: just a simple but classy black anodised fascia with dimpled silvergrey push-buttons, a red dot-matrix display and a line of discreet red indicator LEDs beneath. Ergonomically it's no exemplar since all the transport buttons are the same size and shape, and are identified only by words unsupported by symbols. But you quickly learn your way around. The thin metal disc tray was the only item that slightly let the side down in the review sample, sporadically graunching a little when opening or closing. An isolated indiscretion, I'm sure.

You'd expect a product of this class to offer both unbalanced and balanced outputs, which the No512 does. Moreover, it incorporates a volume control -

RIGHT: The most important LED indicator below the dot-matrix display is the one labelled 'volume fixed'. Only when this is extinguished is the on-board volume control active

analogue, not digital - which allows direct connection to a power amplifier if desired. Fixed output voltage is also available, with selection of either mode via the remote control. Inadvertent switching between the two - which might involve a nasty shock to the listener at least, and speaker damage at worst - is prevented by the need for a sustained press on the appropriate key. And if fixed output level is selected, an LED lights on the facia, giving visual warning.

Now that I've mentioned the remote, it is - arguably - the one example of excess about the No512. Of course you'd expect, and get, a metal-bodied handset rather than a flimsy plastic item, and you'll welcome its clear layout and the fact that it is spacious enough to accommodate podgy fingers - although perhaps not the fact that its keys don't illuminate. But it is too wide to fit comfortably in the hand, particularly if that hand is female; and did it really have to weigh 390g? Don't drop it on your glass-topped coffee table!

In operation the No512 is slick and fast, without the protracted disc ident delay of a universal player. From pressing the 'drawer' button to close the disc tray to the disc being ready to start takes about 15 seconds. Switching between CD and SACD layers of a hybrid disc takes five seconds.

Unless you're in a tearing hurry, neither delay is of annoying proportions.

Rear panel connections include balanced and unbalanced outputs, both digital and analogue, as you'd expect. Less familiar is a connector zone labelled 'Control' which comprises an IR input, trigger input and output, an RS-232 control port and ethernet port. These are provided for use within installed systems. the ethernet port offering control via ML's Net software.

TRYING SOME ALTERNATIVES

If I remember rightly the last SACD player I had on review was the transcendent multichannel combination, which I was fortunate enough to spend a few weeks with all of four and a bit years ago. Since then I have continued to buy SACDs but have only listened to the hybrid discs' CD layers, so my first task with the No512 was to sit down and work through a pile of old and new discs to decide what to use for the listening. For some reason this seems to be particularly important with SACDs, some of which - including ones recommended by people who ought to know better - are bedevilled by a cloying cloudiness of sound that I was near to thinking endemic to the medium in its





early years. Onto my scrap pile went, for instance, my Midori Mozart, Wispelwey Tchaikovsky and Telarc's Britten/Elgar – all tediously turgid. But another, more virtuous pile grew alongside.

Actually, I lie: this wasn't quite the first thing I did with the No512. Noting that it is supplied with a thicker than typical mains cable, I had initially experimented with substituting an expensive upmarket alternative: a 1.5m length of Siltech Ruby Hill. And I was very glad I did because it wrought a remarkable improvement. T Minus 5's Purity SACD was used for the comparison, specifically the track 'Shenandoah'. A little of this style of a cappella singing goes a long way with me, frankly, but the IsoMike recording is remarkable for its natural spaciousness and vocal timbres, both of which were convincingly better rendered with the Siltech cable - which I duly used for the remainder of the listening.

SWEDE SOUNDS

Having sorted out desirable discs and tweaked the mains cable, the next task was to assess the No512's integral volume control. Would I prefer it to my DIY multichannel passive preamp built around an eight-gang DACT stepped attenuator, and hooked up internally with the same company's precious metal wiring? The No512's internal volume control ought to

win, if only on the basis that it eliminates a pair of cables – but the DACT device is very transparent and tough to beat. As indeed it proved, because on a straight comparison using unbalanced connection to a Bryston 4B power amplifier, I marginally preferred the external volume control.

For this comparison I chose the first few tracks of Opus 3's *Showcase 2005* SACD, on the basis that the Swedish label has, in my experience, produced some of the best sonic results using DSD recording. With the

external volume control the filigree percussion that opens 'Vaquero' was a little better resolved, while 'The Talk Of The Town' simply ebbed and flowed a little better. But the preference was reversed when I used the No512's internal volume control via balanced connection to

the Bryston, in significant part, I suspect, because of the costly Siltech Compass Lake interconnect cables I used (the unbalanced connection was via Chord Company Chameleon Silver Plus). Moral of the story: this is fertile ground for individual experimentation, since the results will certainly be cable, external volume control and rest of system dependent.

One last comparison was required before I could simply sit back and enjoy the

ABOVE: Styling is clean, understated and classy in the ML mould, but the ergonomics would be better if the transport controls were of different sizes and supported by symbols

No512 making music: a quick tête-à-tête with the only other SACD player I had to hand, Sony's well regarded – but very much cheaper – XA5400ES. I won't dwell on this obvious bantamweight versus heavyweight mismatch save to say that, compared using unbalanced connection via my passive

'This may well be

as good as this

1970 recording

is ever going to

sound'

preamp, the No512 ground its heel into the aspirant's upturned face. Law of diminishing returns? Piffle. Whoever coined that phrase didn't know high-end audio.

Duty done, I settled down to sampling the insights

that the No512 offers into other superior items from the SACD catalogue. One of the recently acquired discs I was looking forward to hearing for the first time from the SACD layer was Elton John's *Elton John* [Island B0003607-36], which formed a key part of the soundtrack of my youth.

Instinctively I always go straight to track six and the remarkable 'Sixty Years On' – a piece which reliably dumbfounds people familiar only with the crooner incarnation of EJ. But I listened to the other original tracks too, of which 'First Episode At Hienton' and 'The King Must Die' seem to fare particularly well. This may well be as good as this 1970 recording is ever going to sound, the No512 mining fresh nuances while at the same time rendering the whole sound more spacious, more effortlessly natural. I'm still no nearer to knowing whether the surround mix will entrance or infuriate me, though.

PentaTone's Classics series provides a fascinating insight into what 1970s quadraphonics might have delivered had the technology existed to carry an ③

A FUTILE RIVALRY

When, 10 years ago, DVD-Audio and Super Audio CD were launched as rival successors to CD, the natural question for audiophiles was: which is better? Both offered multichannel capability – the feature that was expected to sell them to the music buying public at large – but they used different coding systems. DVD-A ploughed the familiar PCM furrow but upped the maximum sampling rate to 192kHz and supported 24-bit resolution; SACD adopted 1-bit PDM (pulse density modulation) coding instead, at a sampling frequency of 2.8224MHz (64 times 44.1kHz), and called it DSD. The war of words between them was intense and often silly, but ultimately futile as both failed to supplant CD. SACD has more life left in it than DVD-A, but DSD coding has nowhere left to go whereas hi-res PCM soldiers on, not least due to its compatibility with computer audio.

SACD PLAYER



ABOVE: As befits a product of this class, both analogue and digital outputs offer a choice of unbalanced connection via phono sockets or balanced connection via XLRs. Various control interfaces are also provided for installed systems

accurate facsimile of the master tape into people's homes. Although the surround experience is beyond the No512's power to deliver, the stereo SACD layers make for fine listening too. One of my favourites from the series is the first volume of Handel organ concertos, played by Daniel Chorzempa and Concerto Amsterdam under Jaap Schröder [PTC 5186 103]. Once again the No512 delivered exquisite detail but without ever throwing it in your face. Above all, the sound was effortlessly spacious and refined, in the way that turns short listening sessions into long ones.

I've mentioned Hilary Hahn's fine recording of Vaughan Williams' The Lark Ascending [DG 474 8732] a few times recently, but again this was the first time I'd had the opportunity to hear the SACD layer. It didn't disappoint. As Hahn's violin swooped and soared above the sometimes sparse, sometimes lush orchestral accompaniment, it struck me how privileged we are as a generation to be able to experience reproduced sound of this quality and how ironic it is that, afforded this unprecedented opportunity, the music buying public allowed SACD and DVD-A to wither on the vine. What was it Oscar Wilde said about knowing the price of everything and the value of nothing?

AS ADEPT WITH CD

Of course, I also took the opportunity with hybrid discs to switch to the CD laver and I played plain vanilla CDs as well. No question, the No512 excels with the original optical disc medium too. Imaging is precise and rock-steady and, as it does with SACD, the ML is adept at revealing telling detail

without sounding soulless in the way that CD easily can. Yes, SACD is even better - but that's the medium rather than the machine.

What I wish I could tell you but can't is how the No512 stacks up against other top-flight SACD players. My experience of the EMM Labs CDSD/DAC6e is too remote for me to say anything more than that the two are clearly in the same ballpark. Too much water has flowed under the bridge in the interim for me to be more specific, and in any case Ed Meitner's masterpiece amazed me principally because of its eye-popping performance on multichannel material. And how the No512 would fare against dCS's Scarlatti system is an unknown as I've heard only elements of it. As it says in the textbooks, this is an exercise for the reader (if in the market for the very finest in SACD replay).

So, Mark Levinson's first SACD player may have been late arriving, but it delivers. Now, Harman, please can we have a surround version before it's too late?

HI-FI NEWS VERDICT

Mark Levinson's promotional material talks of the No512's 'breathtaking transparency', and that's no idle claim. Whereas lesser SACD players can be 'analogue' sounding to a fault, the No512 - on the better SACDs - strips away the softened, homogenised sound so often heard from DSD to reveal its true blend of subtle detail, spacious imaging and vivid tone colours. And it's cracking as a CD player.

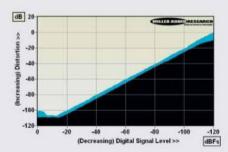
Sound Quality: 87% 0 - - - - - - 100

LABREPORT

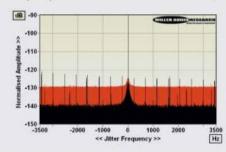
MARK LEVINSON No512 (£12,000)

Much about the No512 is bespoke and on the lab bench it largely lives up to its billing. The fixed volume setting delivers a full 3.9V from its balanced outputs through a fabulously low 10ohm source impedance, so long interconnects hold no fear for this disc spinner. Distortion is less than 0.001% over the top 20dB of its dynamic range at all frequencies, even falling as low as 0.0003% at -10dBFs [see Graph 1, below]. Noise and distortion are necessarily higher above 20kHz with SACD as a function of the format's noise-shaping. Ultrasonic noise is extremely low with CD (typically -130dB below peak output) while its digital filtering successfully squeezes any stopband images down to a worse-case -114dB. Despite the potent filtering, its response with CD is flat to within -0.1dB at 20kHz, extending out to -0.5dB/20kHz, -2.0dB/40kHz, -4.8dB/60kHz, -9.3dB/80kHz and -16.5dB/100kHz with SACD.

Levinson implements a version of DDS (Direct Digital Synthesis) to remove litter on the master clock and at just 121psec (7psec over the baseline 16-bit data pattern) with CD and 37psec with SACD (at ±1.65kHz), it looks to have been successful [see Graph 2, below]. It also specifies an analogue S/N ratio of 108dB which was bested at 112.6dB on the right channel (A-wtd). Our sample had a slightly noisier left channel at 106.5dB - the side next to Levinson's comprehensive PSU regulation for its digital and analogue circuit sections. At this low level, a difference in noise is unlikely to exert any subjective impact. Readers are invited to view a full QC Suite report for the Levinson No512 CD/SACD player by navigating to www. hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: Distortion vs. digital signal level over a 120dB dynamic range using CD data at 1kHz (black) and 20kHz (blue). Distortion is <0.001% over the top 20dB



ABOVE: High resolution jitter plots from CD (black) and SACD (red spectrum). The residual peaks are mainly the baseline 16-bit data pattern, not jitter

HI-FI NEWS SPECIFICATIONS

Maximum Output Level/Impedance	3.91Vrms / 10ohm			
A-wtd S/N Ratio	112.6dB			
Distortion (1kHz, 0/–30dBFs)	0.00095% / 0.0035%			
Distortion (20kHz, 0dBFs)	0.00135%			
Frequency resp. (20Hz-20kHz/100kHz)	+0.0 to -0.1dB/-16.5dB (CD/SACD			
Digital jitter (CD/SACD)	121psec / 37psec			
Resolution @ -110dB (CD/SACD)	±0.8dB / ±0.1dB			
Power consumption	33W / 19W (standby)			
Dimensions (WHD)	442x116x448mm			

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GROUP ESITE

This month we put no fewer than a dozen speaker cable upgrades through their paces as we compare designs from many of the pedigree names in cable technology

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CD PLAYERS • TURNTABLES • CARTRIDGES • SPEAKER CABLES • AMPLIFIERS • HEADPHONES • SPEAKERS •

t's during the long winter evenings that many of us spend the most time enjoying our hi-fi systems. This is also the period that many enthusiasts begin hankering after their next upgrade, as the more we listen the more we crave that the equipment might get us even closer to our favourite musicians and recordings.

As hinted in last month's issue where we tested a dozen analogue interconnects, simply changing your cables is unlikely to transform an unsatisfactory system into a magically pleasurable one. But if you've already got a good system and want to eke the best performance from it, it's surprising how cables can influence the overall sonic presentation.

Of course, we all have different system set-ups that present varying priorities in cable choice. Enthusiasts using electrostatic speakers driven via a high-voltage step-up transformer will usually benefit from using a cable with low inductance, for example. And some amplifiers can be adversely affected by a cable's capacitance, if extremely high. Certainly the length of speaker

cable required for your rig is critical too. Thicker wire reduces the overall resistance and signal loss while maintaining the flattest amp/ speaker response. So if you cannot avoid long runs to your speakers, it's important to use a cable of adequate gauge.

THE TEST SYSTEM

For the listening tests - which involved many hours of comparative listening over several days - the system comprised a Levinson No.383 100W solid-state amplifier driving Townshend Audio Sir Galahad speakers. CDs were played on a Wadia W381i, while a Pioneer DV-868AVi universal player was employed for listening to highresolution recordings on DVD-Audio and SACD. With its bottomless bass and the speakers' ribbon tweeters delivering explicitly detailed treble, this system provides a wide open window through which to listen to differences in sound quality.

MUSICAL CHALLENGES

In order to describe the manner in which each cable influenced the music, three specific recordings

were chosen. Engineer Geoff Foster's recording of Joni Mitchell's Both Sides Now [Warner/Reprise 9 47620-9] is a challenge for any system to reproduce well, due to its expansive orchestral arrangements and rather rich, resonant bass. When auditioned in high-resolution on DVD-Audio one can hear in an instant that the recording medium was analogue tape (using Dolby SR, by the way). We used the track 'Comes Love' get it right and the sound is glorious. The opening March from A Soldier's Tale by Stravinsky, a digital recording by Keith Johnson for the American audiophile label Reference Recordings [RR-17CD], was chosen for its natural tonal balance and three-dimensional sound image.

By way of contrast, we used a rock classic that was many an audio enthusiast's favourite test track back in the 1970s, Fleetwood Mac's 'The Chain' from *Rumours*. At the turn of the century it was remastered at 24-bit/96kHz for DVD-A [Warner 9362-48083-9] and sounds as if it was recorded only yesterday.

REVIEWS BY JOHN BAMFORD LAB TESTS BY PAUL MILLER

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GROUP TEST

Atlas Hyper 2.0

ooking ultra-sleek in its gloss black jacket, the Atlas Hyper speaker cable comes in several versions the '2.0' suffix signifying that its 6N (99.9999% pure) OFC multistrand conductors have a 2mm2 cross-sectional area. Hyper also comes in lighter and heavier-gauge '1.5' and '3.0' variants, while Hyper Bi-Wire combines this model's conductors with a separate 1.2mm² solid core OFC strand for the high frequency leg of bi-wireable speakers.

All Hyper speaker cables feature a Teflon dielectric, the conductors twisted and cosseted in a cotton yarn before being surrounded in a paper jacket and a flexible outer sheath of PVC. Overall outer diameter is 7mm.

The proprietary 4mm 'Z plugs' are worth a mention, being composed of 80% copper with a 'beryllium copper' used for the contact pin. Z plugs have hollow pins to reduce mass and also make them suitable for the few amplifiers on the market featuring BFA output connectors (Cyrus amps being one of the last protagonists). The outer sleeve is ABS and when factory-fitted by Atlas the Z plug is cold-welded.

LUCID TUNES

Controlled and well-ordered sounding, the difficult-toreproduce bass on Joni Mitchell's 'Comes Love' sounded particularly lucid. Vocals were nicely articulated too, with sibilants neither too pronounced nor over-smooth. In fact everything sounded 'just right' in the test system, with great image projection and an even tonal balance.

The Chicago Pro Musica ensemble was depicted with finesse and tremendous clarity, Reference Recordings' natural-sounding excerpt allowing the instruments real scale to be revealed. Similarly, the cable's balanced and even character brought out the instruments' timbre. Percussion was powerful with a deep, taut bass while the brass had lifelike 'rasp' when the occasion demanded.

Despite the dense production of Fleetwood Mac's 'The Chain', this cable made it easy to hear right into the mix and reveal the individual sounds of guitars and keyboards buried within.



Sound Quality: 80%

Black Rhodium Salsa

vailable both as a two-core (featured here) and a chunkier four-core bi-wire/ amp speaker cable, each of the Salsa's multistrand conductors are formed of 19x0.45mm strands of silverplated copper. The insulation is a silicone rubber, as is the cable's off-white outer sheath. making it supremely flexible despite its substantial 9mm diameter. The conductors run in parallel within the sheath.

The Salsa's conductors are silver-soldered to goldplated 4mm banana plugs whose plastic outer shells are fully encapsulated in a heatshrink tubing to provide added strength and give a professional finish. The heatshrink is colour-coded, branded and marked for

cable directionality. As Salsa is available off the reel and since Black Rhodium also offers a bespoke cable construction service, pretty much any type of termination is available on request. See Black Rhodium's website for further details.

ROCKIN' ON

Engineer Geoff Foster's production of Both Sides Now is particularly 'fruity' and resonant at low frequencies which, with the Salsa cable, resulted in bass that verged on the overwhelming, making it difficult to pitch the notes. Joni Mitchell's voice seemed magnified too, forward in the mix with a 'rosy glow' and increased weight.

This made for a full-on, rockin' performance of 'The Chain', the kick drum of Mick Fleetwood's kit combining with John McVie's bass to rattle our chest cavities. It really sounded as if the amplifier's volume control had been wound-up a couple of notches. In practice, of course, it had not.

Even the chamber music ensemble seemed 'heavier'. cellos and basses combining with percussion to deliver a loud, powerful rendition of the opening March to A Soldier's Tale. Brass and woodwind didn't appear lacking in any leading-edge detail, with good resolution of subtle reverberation details and ambience clues. But the tonality of the instruments was mellowed by the subjective presence lift and weight of bass. This is a cable for bright-sounding systems.



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GROUP TEST

Rumour 2 Made by: The Chord Company Supplied by: The Chord Company Tel: 01980 625700 www.chord.co.uk



Stereo Solid Core Made by: DNM Design Supplied by: DNM Design Tel: 01480 457989 www.dnm.co.uk

Chord Rumour 2

esigned for a wide range of applications, Chord's Rumour cable is available in three configurations. The Rumour 2 version featured here comprises a twisted pair of 1.35mm (16 gauge) conductors, each made of 19 strands of silverplated oxygen-free copper, insulated by Teflon (PTFE) and surrounded with an outer jacket of silicone rubber. It's pretty flexible and particularly living-room friendly with an overall diameter of only 6mm.

Also available is Rumour 4 with two twisted pairs of conductors for bi-wiring/amping (10mm diameter) and Rumour Install, which is simply a twisted pair of the PTFE-insulated conductors

without the silicone outer sheath – ideal for discreet custom installations.

Terminated with barrelless gold-plated 4mm plugs which are silver-soldered and finished with smart-looking branded shrink tubing, the cable is clearly marked for directionality. Chord believes that while cable directionality makes little difference to tonal quality it has a marked effect on 'timing and musical coherence'.

STRIDING FORTH

Providing exceptional clarity, this cable delivered a sound that was open, clear and spacious. While there was some leanness in the very lowest frequencies this benefited the 'dark' balance of Joni Mitchell's *Both Sides*

Now, the pitch of the bass notes on 'Comes Love' proving easier to follow. Mitchell's vocal delivery showed added presence, with particularly clear diction and pure reproduction of sibilants.

The Chicago Pro Musica ensemble sounded fast and bright, the cable helping provide an entertaining insight to the piece and real 'bite' to the brass instruments and percussion. But the overall balance was slightly bleached of colour, the bassoon and drums lacking their customary resonance. While the Rumour 2 sounded crisp and fast when listening to 'The Chain', there was a touch of stridency during the more dense parts of the production. A revealing cable, and the price is attractive.



Sound Quality: 75%									
0	100	74.1		700		-	(4)		100

DNM Stereo Solid Core

NM offers two types of Stereo Solid Core speaker cable, both comprising a flat ribbon of low density polyethylene (LDPE) containing four equally spaced solid copper conductors. The type called 'Precision', promoted for use in low power systems with high sensitivity speakers, uses 4x0.65mm diameter conductors in a 18.7mm wide ribbon. The version reviewed here is 25mm wide with thicker 1mm diameter conductors to allow longer cable runs with, it suggests, higher power amplifiers.

As with the company's interconnects, the plane of the thin conductors and the LDPE insulation is offset (so the ribbon is almost smooth

on one side and ribbed on the other) to reduce capacitance, though inductance and resistance are higher. The speaker cables are terminated with lightweight, gold-plated 4mm/BFA connectors.

The cable is called 'Stereo' because you only need one run from your amplifier to (say) the middle of your two speakers, where you then part it down the middle. Or you can use two runs for bi-wiring/amping, of course.

CLEAR WINDOW

The familiar atmosphere and resonance of 'Comes Love' was exquisitely depicted with Stereo Solid Core in the system, the character of the bass playing and pitch of the notes easy to follow. Mitchell's voice

had immediate presence
– projected forward of the
main image – while her
accompaniment seemed all
of a piece, underpinning the
mood of the performance.

With the less rounded tonality of *A Soldier's Tale* the performance was not as engaging, basses and cellos lacking some body and the subtle dynamic swings less well expressed. The ebb and flow of Chicago Pro Musica's performance seemed more a constant trickle.

While the clarity and overall tidiness of the sound aided observation of delicate and fine details in the production of Fleetwood Mac's 'The Chain', the track as a whole failed to deliver its customary vitality, sounding rather sat-on.



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GROUP TEST

XHS756 Made by: IXOS Ltd Supplied by: IXOS Tel: 01844 219004 www.ixos.co.uk



C12 Mk2 Made by: Merlin Cables, Surbiton Supplied by: Merlin Cables Tel: 01189 481535 www.merlincables.com

IXOS XHS756

n common with its interconnect cables, IXOS employs a proprietary 'Gamma Geometry' in the construction of this serious-looking speaker cable. Ready for bi-wiring/amping if terminated appropriately, it comprises two pairs of PC-OFC conductors comprising multiple fine strands in a polyethylene dielectric. The conductors are woven together with an additional dielectric core that prevents them from being twisted too tightly together.

One pair of wires is made from 322 ultra-fine strands to make a 2.6mm² (13-gauge) conductor, the second smaller pair (for high frequencies if terminated for bi-wiring/amping) having 210 strands to make a 1.7mm²

(15-gauge) conductor. The loosely woven conductors are sheathed in a braided nylon outer jacket, the intriguing-looking terminator barrels at either end merely serving to disentangle the conductors for termination.

IXOS uses branded 4mm plugs that are gold-plated, this unwieldy but highly flexible cable representing the equivalent of a substantial 11-gauge conductor when the HF and LF pairs are combined for single wiring.

EASY DOES IT

Showing evidence of a 'sweet' nature there was gentle smoothness to the sibilants on Joni Mitchell's vocals. Moreover the ringing sheen of the cymbals and the rasp of brass instruments was a little

softened, albeit pleasantly so without appearing dulled. There was detail a-plenty and commendable front-to-back image depth to the soundstage despite the syrupy smooth tonal balance.

With IXOS's XHS756 the system appeared to offer more headroom, the dynamic contrasts adding a sense of occasion to the chamber ensemble performing A Soldier's Tale. And the unforced treble detail made for relaxed listening, something that certainly benefited the sharper balance of the 1970s studio production of Fleetwood Mac. Bass guitar and drums were vivid with good weight and 'punch' while there was little of the usual hardening of the sound in loud passages.



Soun	d Qua	lity: 8	30%				
0	100	14	-	0.03	*	· • ·	100

Merlin Cl2 Mk2

his butch-looking cable from Merlin even has ferrite noise absorbers clamped towards the speaker end (the cables are marked for directionality). This is one for enthusiasts, for sure. Each conductor is made of 6x0.56mm high purity OFC strands, coated in resin and arranged in an alternating spiral configuration. These cores are encased in LDPE (low density polyethylene), screened with a Mylar foil then individually encased in a double-layered PVC outer sheath and twisted again which the company believes aids mechanical damping but capacitance seems high.

Our sample of C12 Mk2 was terminated in its standard gold-plated 4mm banana/ BFA 'Z plugs'. These are silver-soldered and barrelless, covered in heatshrink tubing. As Merlin cables are all hand assembled, any type of specialist plugs or spade connectors can be specified to order. Its C12 Mk2 can also be supplied as a bi-wire (2-to-4) cable.

SMOOTH OPERATOR

Coming across as simultaneously powerful and smooth-sounding, Merlin's C12 made easy work of the plummy bass lines accompanying Joni Mitchell's husky vocal. In fact her voice sounded uncommonly smooth, with a thick velvety texture that verged on cloying in the test system. Cymbals sounded over-recessed in the mix and

lacked some sparkle. The balance was unquestionably comfortable... but a bit 'lush'.

Stravinsky's A Soldier's Tale demonstrated fine three-dimensionality and good dynamics with Chicago Pro Musica's instruments nicely spaced out. Low frequency drum sounds had commendable power and authority but more 'bite' to the leading edges of bassoon and brass was required.

While the C12 Mk2 might be described as 'laid back', its balance actually benefitted the more raucous moments of 'The Chain', Mick Fleetwood's cymbal crashes lacking the stridency that regularly mars the replay of this recording. And the power of the bass and kick drum was tremendous.



	100 (5	про	"[pci	CASS		1 "	.150	j de la	*
Sour	nd Qua	ality:	85%						
0	12		-		-	*	100	-	100

0.07dB

Loss (over 3m run into 8ohm)

MUSICAL FIDELITY

PRIMO Pure Class A Tube Preamplifier

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GROUP TEST

Revelation Made by: QED Supplied by: Armour Home Electronics Tel: 01279 501111 www.armourhe.co.uk



Supra Ply 3.4 Made by: Jenving Technology, Sweden Supplied by: Wavelength Distribution Tel: 01223 441 299 www.supracables.co.uk

D Revelation

riced between its high-end Genesis and less expensive 'X-Tube' designs, OED's Revelation speaker cable uses a parallel conductor pair configuration with a traditional 'figureof-eight' profile. Each 5mm-thick conductor is a spiral of ten cores (each comprising 19 exceedingly fine 0.1mm strands of silverplated oxygen-free copper) encapsulated in a moderately flexible, clear polyethylene outer sheath. For those purchasing the cable off-thereel, printing on the sheath clearly identifies the polarity of each conductor.

Most enthusiasts will buy the finished article which is terminated by 'cold welding' to QED's attractive

gold-plated Airloc 4mm plugs which the company claims allows the cable and plug to offer the optimum signal transfer with reduced contact resistance and minimal longterm degradation. The plug's split-pin design certainly provides a reassuringly tight fit to an amplifier's speaker output sockets.

A REVELATION

While trying to avoid any 'revelatory' style puns, the Revelation did sound immediately detailed and forthright. Cymbals shimmered in the background with natural reverberation tails just as the enunciation of Joni Mitchell's vocals appeared both sharp and lucid. The bass was really full and 'plummy' - perhaps a

little too full, in fact, which may be how some listeners will expect this recording to sound anyway.

Thanks to the subjectively powerful bass performance and sparkling detail, the success of recording engineer Keith Johnson in capturing the natural acoustic surrounding the classical music ensemble was beautifully realised. If anything, the sound appeared slightly too brightly lit, while the sudden 'whoomphs' as the timpani jumped in were particularly dramatic.

Such a 'Technicolor' performance made for a fullthrottle ride when listening to 'The Chain', that hoary bass riff threatening to rattle anything that wasn't firmly tied down. It's a wake-up call for tired-sounding systems.



Soun	nd Qua	lity:	78%				
0	100	14-1		000	*	UM:	100

Supra Ply 3.4

inished in Supra's familiar trademark blue colour, Ply 3.4 is a particularly flexible multistrand speaker cable with a figure-of-eight profile. Its PVC insulation has a rubberised feel while each conductor is made of 193x0.15mm strands of tinplated OFC. Woven tightly into a rectangular profile, each conductor has a crosssectional area of 3.4mm².

Available terminated or off-the-reel, Ply 3.4 benefits from Supra's catalogue of connectors. Included in the price is a full set of screwon (or solder) CombiCon connectors, available with either 4mm banana/BFA or spade connector 'tips' that screw into the connectors' barrels, or as a 'kit' containing :

both types for only £35 more. While not the last word in audiophile purism, such flexibility is unquestionably a boon - and an investment.

(a) LAID BACK

Joni Mitchell's dominant vocal in 'Comes Love' sounded deeper and 'darker' with Ply 3.4 in the system. Where the voice tends to appear too close-miked (or simply too loud, making the backing arrangement hard to concentrate on), this presentation appeared gently laid back. Easy on the ear, it could on occasion sound a little lazy and slow - but with pleasing 'air'.

Even the louder passages of Fleetwood Mac weren't 'in your face'. Bass was fruity and impressively powerful

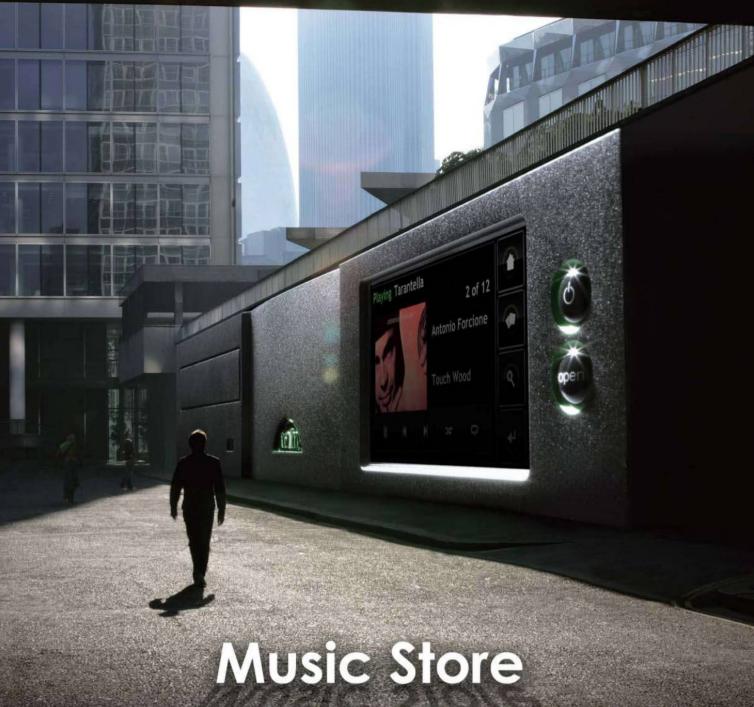
too. A downside, however, was a softening of fine detail demonstrated in a lack of clear differentiation between cymbal timbres. Deep bass quitar notes and the thump of the kick drum were not as fast and precise as they can be, either.

While a little 'lethargic' sounding, the lack of obvious 'humps' in the tonality meant it worked wonders with the pure recording of Chicago's chamber music ensemble. Thanks to its unsullied recreation of the recording's natural acoustic the system delivered a 'walk-right-into-it' three-dimensional image.

Bearing in mind the very attractive price of Ply 3.4, achieved by saving Supra the cost of final termination, its sound per pound is very high.



Price (3m pair/per extra 1m)



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GROUP TEST

Python Made by: True Colours Industries Co. Supplied by: True Colours Industries Tel: 028 9267 3024 www.tcicables.com



TelluriumQ Made by: TelluriumQ Supplied by: TelluriumQ Tel: 01458 251 997 www.telluriumg.com

TCI Python

iven the stiffness of True Colours Industries' Python speaker cable one might assume it employs solid core conductors, but in fact each conductor comprises 19x0.45mm diameter strands of silver-plated oxygen-free copper (SP-OFC), insulated in a Teflon dielectric.

Silver-soldered to gold-plated 'beryllium copper' 4mm plugs, these are hollow to double-up as BFA connectors and covered in colour-coded heatshrink tubing by way of a professional finish. The Python cable's attractive outer sheath has the appearance of a fabric braid but is made of PVC and looks like it should prove to be extremely hard-wearing. Nevertheless, don't expect to

force this cable around tight bends if space is cramped behind your equipment rack.

HIGH OCTANE

The adjectives 'fast' and 'clean' sprang to mind as the musical accompaniment to Joni Mitchell's 'Comes Love' sprang forth in sharp focus, the bass playing in particular sounding less lazy than usual. Similarly, where the vocal balance is often considerably forward of centre stage and unnaturally large, the Python cable offered a more appropriate scale to Mitchell's voice, creating a convincing sonic picture.

This speed and clarity made for a more brightly-lit balance to the sound of the Chicago Pro Musica ensemble, the bite of the brass and leading-edge definition of bassoon and percussion adding an up-beat feeling to the tempo of the March from A Soldier's Tale.

Clarity was razor sharp, but with the tight, controlled bass came a degree of hardness to the less genteel balance of Fleetwood Mac when in full flight. The kick drum really kicked with reduced overhang so that the character of the production could be clearly observed, details of keyboard and vocal backing tracks jumping out of the mix in holographic fashion.

However, in our system, as the volume swelled the crash of cymbals and fuzz of distorted electric guitars were delivered in uncompromising fashion – perhaps too uncompromising for all tastes.



Soun	d Qua	lity:7	70%				
0		(3)	*	140	*		100

Tellurium C

brand new speaker cable designed by Colin Wonfor who was responsible for the range of Inca Tech amplifiers in the 1980s, TelluriumQ utilizes parallel spaced conductors in an uncommonly flat and flexible profile. More like a ribbon, it's just 1.7mm thick and 13mm wide – just the ticket for those needing to run cable under carpets or rugs.

Little is known about the TelluriumQ's innards as the company claims it has a patent pending for its new design and is remaining steadfastly tight-lipped about the type of conductors and dielectric material employed. As the black 'ribbon' has such a thin profile the conductors clearly don't have a large

cross-sectional area, and they are spaced widely apart in the insulation material to minimise capacitance. Plastic-bodied 4mm plugs are used, these gold-plated nickel types chosen, the company says, on grounds of sound quality rather than fashion.

SPACIOUS SOUNDS

The reverberant, almost cavernous acoustic space sparked by the orchestral backing to Joni Mitchell's track was comfortably depicted once TelluriumQ was ensconced in the test system. Woodwind and brass had a palpable sense of reality with crisp transients and natural decay, despite the vocals occasionally threatening to swamp the overall balance of the presentation. The fulsome

bass was kept under control to afford a good sense of timing and clarity of pitch.

An ideal balance was struck as the vibrant performance of the chamber music ensemble bubbled enthusiastically. Instruments were brightly illuminated in sharp relief, with crisp transient sounds from brass and percussion cutting through without sounding harsh or forced.

A similar 'correctness' of balance was manifested with 'The Chain'. Bass and drums weren't as thick and powerful as demonstrated by some cables, nevertheless there was adequate weight to the familiar bass riff and, crucially with this dense rock production, the sound was controlled and didn't harden as the volume increased.



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Please visit: monitoraudio.co.uk
Telephone: 0800 0352 032

CS-122 Hybrid Made by: A J van den Hul BV, Supplied by: Henley Designs Tel: 01235 511166 www.vandenhul.com



Solstice 6 Made by: Wireworld Inc, USA Supplied by: Wireworld UK Tel: 020 8991 9200 www.wireworldcable.com

VdH CS-122 Hybrid

classic dumbbellshaped cable, each of the two parallel conductors is formed of 147 strands of 0.16mm silver-plated 'matched crystal' OFC with a cross section area of 2.96mm2. Covering the two conductors is a layer of Linear Structured Carbon (LSC) that the company claims prevents ageing of the wire and 'transforms the radiated magnetic field into an audio-signal again'. Despite the cable's bulk it is supremely flexible thanks to the Hulliflex jacket, a halogenfree material that vdH has been using for many years in favour of less environmentallyfriendly materials such as PVC.

While available off-thereel for DIY-ers, factory-made CS-122 leads are terminated with vdH's proprietary 24K gold-plated Bus Connectors. These modular connectors comprise a barrel that's a 'solder bucket' for the wire at one end and is threaded at the other. Here you may either screw-in a spade connector or a 4mm pin, the latter having a 'caged spring' contact section.

VELVET TONES

Due to the 'woody' tonality of Joni Mitchell's *Both Sides Now* album, the powerful and ebullient bass was rounded and luscious but it wasn't particularly easy to hear into the backing instruments as a cloudy thickness spoiled the retrieval of distant and detailed sounds.

The Chicago Pro Musica's rendition of Stravinsky's

A Soldier's Tale sounded lush and smooth, with good scale and a similarly full-bodied bass. The weight of the drums and velvet quality of the strings was augmented by a warm glow to cello and bass timbres. While low notes did sound a little slow, they couldn't be described as ponderous as there was a wealth of detail and texture just as the size of the hall could be admired from afar.

A sense of distance combined with a relaxed demeanour made for comfortable listening to the re-mastered rock production of 1970s Fleetwood Mac. What was missing, however, was some verve and 'bite' to leading edges of guitar chords and cymbal crashes. Greater 'insight' would be welcomed.



Soun	d Qua	lity:7	70%				
0		(3)	*	140	*		100

Wireworld Solstice 6

his is another example of a cable that only dedicated enthusiasts are likely to accommodate due to its substantial 15mm diameter. Each conductor within this inflexible design is a flatprofile 'strip' made of multiple strands of oxygen-free copper (OFC) running parallel in a high-density polyethylene dielectric (HDPE). The combined cross-sectional area of each conductor strip is specified at a substantial 3.5mm2 (12-gauge).

The strips are then twisted, Wireworld calling this construction its 'DNA Helix profile'. It's the twisting that greatly increases the cable's bulk before the conductors are sheathed in a PVC jacket with a pearlescent finish.

Marked for directionality, they are terminated with gold-plated, low-mass (and barrelless) 4mm/BFA connectors. Enthusiasts may request gold-plated spade terminations if preferred.

D LIGHTS, ACTION...

With a fast and crisp balance not dissimilar to that of QED's Revelation, the pitch and character of bass notes was refreshingly unambiguous. The sound 'picture' gave the impression that the lighting in the recording studio had been increased to a brighter level, its fresh balance providing a clearer window through which to observe Joni Mitchells' musical accompaniment.

Brass instruments sounded a little bleached but

extraordinarily clear so while its matter-of-fact presentation might not appeal to all, in our test system the ability to observe low-level detail made Wireworld's Solstice 6 a firm favourite. Rather than bloated and forgiving, bass was taut and well-defined, the speed of percussion and bass-playing adding pace and drama.

You'll need to be prepared to have dense, manufactured productions such as 'The Chain' completely torn apart. Compression caused by studio multitracking was not glossed-over by the Solstice 6, nor were high frequency 'nasties' gently disguised.

Backing tracks of guitars and keyboards were deliciously spotlit by the Solstice 6 – a hi-res cable for hi-resolution systems.



Series Inductance (3m loop)	0.63µH
Parallel Capacitance	1.09nF
Series Resistance	34mohm
Loss (over 3m run into 8ohm)	0.037dB
Price (3m pair/per extra 1m)	£240 / £25

Sour	nd Qua	ality: 8	37%						
0	-	(4)		-	150	2	25	4	100

GROUP TEST VERDICT

CD PLAYERS • TURNTABLES • CARTRIDGES • SPEAKER CABLES • AMPLIFIERS • HEADPHONES • SPEAKERS •

espite covering a wide range of design philosophies and diverse construction methods, none of these cables genuinely 'spoiled' the sound of our test system. However, extensive listening revealed subtle differences in the way each altered the subjective sound balance. If it was your system and you had to choose between them, you'd likely pass over the van den Hul CS-122 Hybrid, TCI Python and DNM Stereo Solid Core.

The latter sounded 'damped' and while not best suited to bigsounding or powerful systems, it's a particularly tidy and low-priced option whose midband clarity might suit the smaller speaker. The vdH cable could be an appropriate choice if a fatiguing system needs taming but in our test system it was rather too smooth and bass heavy. TCI's Python sounded fast and should add zest to a lazy-sounding system with a loose bass that needs tightening, but again it wasn't ideal in our set-up.

PERFORMANCE AND VALUE

OED's Revelation, the Chord Company's Rumour 2 and the Atlas Hyper 2.0 all represent good value, the Chord being especially keenly priced. Its discreet profile makes it living-room friendly too. The Atlas delivered the highest resolution, closely followed by the QED which has a slightly stronger bass, while the Chord proved to be a little leaner. Mind you, it's likely this will be observed only by owners of very large floorstanders.

Of the costliest cables in our test, priced between £200-£250 for a 3m pair, the Black Rhodium Salsa, IXOS XHS756 and Tellurium Q can all be recommended if the budget suits. It's the Tellurium O that imparts the least character with an even tonal balance, while its flexibility and flat profile make it a highly attractive

proposition for custom installations. : but it is unforgiving of compressed The Salsa's the one to choose if you're hankering after a meatier, richer bass performance from a lean-sounding system. Otherwise, the IXOS sounded refined and relaxed, imparting a good sense of spatiality while taming a 'hot' sounding system.

Balancing price with performance, Wireworld's upmarket : the bass as the Merlin C12 Mk2

Solstice 6 justifies its premium over Merlin's C12 Mk2 while Supra's Ply 3.4 emerged as something of a bargain. Both the Merlin and Wireworld fall into the

'enthusiasts-only' camp due to their relative bulk; forget any thoughts of tucking them inconspicuously around the edge of carpets in a family living-room. But if you're dedicated to eliciting the best possible sound from a system, they certainly deliver.

The Wireworld sounds extraordinarily clear and focused, highlighting contrasts between recordings in delicious fashion,

recordings. The Merlin might be a better choice if you prefer a more relaxed presentation with silkier high frequencies and a subjectively 'warmer' balance. Meanwhile there's no denying the exceptionally good value of the Supra Ply 3.4. While not as explicit as Wireworld's Solstice 6 or quite as powerful sounding in

> it delivers a great performance at a bargain price. It can 'grow' with your system as well. Should vou wish to bi-wire or bi-amp a system as you upgrade, Supra can supply special

heatshrink termination 'trousers' and nylon braid to help keep two runs of Ply cable neat and tidy. (1)



'Supra's Ply

3.4 emerged

as something

of a bargain

CD PLAYERS - TURNTABLES - CARTRIDGES - SPEAKER CABLES - AMPLIFIERS - HEADPHONES - SPEAKERS -

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Soun	d Qua	lity:7	70%				
0		(3)	*	140	*		100

Wireworld Solstice 6

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The strips are then twisted, Wireworld calling this construction its 'DNA Helix profile'. It's the twisting that greatly increases the cable's bulk before the conductors are sheathed in a PVC jacket with a pearlescent finish.

Marked for directionality, they are terminated with gold-plated, low-mass (and barrelless) 4mm/BFA connectors. Enthusiasts may request gold-plated spade terminations if preferred.

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Parallel Capacitance	1.09nF
Series Resistance	34mohm
Loss (over 3m run into 8ohm)	0.037dB
Price (3m pair/per extra 1m)	£240 / £25

Sour	nd Qua	ality: 8	37%						
0	-	(4)		-	150	2	25	4	100

GROUP TEST VERDICT

CD PLAYERS • TURNTABLES • CARTRIDGES • SPEAKER CABLES • AMPLIFIERS • HEADPHONES • SPEAKERS •

espite covering a wide range of design philosophies and diverse construction methods, none of these cables genuinely 'spoiled' the sound of our test system. However, extensive listening revealed subtle differences in the way each altered the subjective sound balance. If it was your system and you had to choose between them, you'd likely pass over the van den Hul CS-122 Hybrid, TCI Python and DNM Stereo Solid Core.

The latter sounded 'damped' and while not best suited to bigsounding or powerful systems, it's a particularly tidy and low-priced option whose midband clarity might suit the smaller speaker. The vdH cable could be an appropriate choice if a fatiguing system needs taming but in our test system it was rather too smooth and bass heavy. TCI's Python sounded fast and should add zest to a lazy-sounding system with a loose bass that needs tightening, but again it wasn't ideal in our set-up.

PERFORMANCE AND VALUE

OED's Revelation, the Chord Company's Rumour 2 and the Atlas Hyper 2.0 all represent good value, the Chord being especially keenly priced. Its discreet profile makes it living-room friendly too. The Atlas delivered the highest resolution, closely followed by the QED which has a slightly stronger bass, while the Chord proved to be a little leaner. Mind you, it's likely this will be observed only by owners of very large floorstanders.

Of the costliest cables in our test, priced between £200-£250 for a 3m pair, the Black Rhodium Salsa, IXOS XHS756 and Tellurium Q can all be recommended if the budget suits. It's the Tellurium O that imparts the least character with an even tonal balance, while its flexibility and flat profile make it a highly attractive

proposition for custom installations. : but it is unforgiving of compressed The Salsa's the one to choose if you're hankering after a meatier, richer bass performance from a lean-sounding system. Otherwise, the IXOS sounded refined and relaxed, imparting a good sense of spatiality while taming a 'hot' sounding system.

Balancing price with performance, Wireworld's upmarket : the bass as the Merlin C12 Mk2

Solstice 6 justifies its premium over Merlin's C12 Mk2 while Supra's Ply 3.4 emerged as something of a bargain. Both the Merlin and Wireworld fall into the

'enthusiasts-only' camp due to their relative bulk; forget any thoughts of tucking them inconspicuously around the edge of carpets in a family living-room. But if you're dedicated to eliciting the best possible sound from a system, they certainly deliver.

The Wireworld sounds extraordinarily clear and focused, highlighting contrasts between recordings in delicious fashion,

recordings. The Merlin might be a better choice if you prefer a more relaxed presentation with silkier high frequencies and a subjectively 'warmer' balance. Meanwhile there's no denying the exceptionally good value of the Supra Ply 3.4. While not as explicit as Wireworld's Solstice 6 or quite as powerful sounding in

> it delivers a great performance at a bargain price. It can 'grow' with your system as well. Should vou wish to bi-wire or bi-amp a system as you upgrade, Supra can supply special

heatshrink termination 'trousers' and nylon braid to help keep two runs of Ply cable neat and tidy. (1)



'Supra's Ply

3.4 emerged

as something

of a bargain

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Leben CS-300XS Review Hi-Fi+ Awards 2009 Issue















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USHER

VALVE POWER AMPLIFIER

Consonance Cyber 880A (£2895)

This 30W Chinese valve amp sounds best with sensitive speakers and simple programme material; it also helps recordings with extreme 'digititis' Review: John Bamford Lab: Paul Miller

pera Audio, the Beijing-based manufacturer of Consonance products, obviously loves the sound of valve amplifiers. Nevertheless it clearly appreciates that audio enthusiasts come in all shapes and sizes, with varying tastes and systems. In the Consonance portfolio there is something for everyone, including a range of solid-state amplifiers and CD players, as well as a bewildering array of valve amps covering varying design alternatives. And many of these products are not without industrial design flair: the Cyber 880 and 211/845 monoblock power amps, for example, look like works of modern art.

With the Cyber 880 power amplifier, depending on system matching and personal taste you can choose either a 2x100W-rated ultra-linear version employing eight 6550 output valves, or this recently-introduced 880A version rated at 2x30W with its complement of two 12BH7 and three ECC82 valves plus four 2A3 power triodes in push-pull configuration per channel. Each has the same chassis and cosmetics: both are priced at £2895. The 2A3 version clearly is suited to more sensitive speakers given its lower power capability. (Alium Audio, the UK distributor for Consonance lists 18 specialist dealers across the country who doubtless can advise on the most appropriate model to choose depending on system ancillaries.)

To my eyes the styling of this Cyber 880A is perhaps comparatively a little staid, although in a modern setting I could imagine it looking modestly chic. The clean lines and light cherry wood adornment to the silver metallic casework make the amp a curious combination of both retro and modernly minimalist in appearance - if not in

RIGHT: Removing the protective cage reveals the illuminated bias indicator; recessed trim pots on the amp's top plate are accessed with a small screwdriver to adjust the bias current to each of the eight 2A3 output valves

weight: you'll need a sturdy shelf or rack to accommodate its 35kg.

The Cyber 880A's aluminum front panel and silver chassis sport a pleasing lacquered finish, as does the protective valve cage. When the cage is removed a series of recessed slot screws is exposed, for adjusting the bias current for each output valve. I felt the yellow-green illumination of the bias meter clashed somewhat with the bright blue LED on the fascia's solitary power on/off button, but it's hardly a concern.

At the rear is simply a pair of single-end RCA input sockets and chunky speaker binding posts. Output matching taps are provided for both 40hm and 80hm loudspeakers.

PROS AND CONS OF VALVES

Ardent fans of valve amplification will listen to nothing else, citing a kind of 'harmonic correctness' and midrange magic that they say eludes solid-state amplifiers. The most 'pure' of the valve breed - the low-powered, single-ended triode type that eschews negative feedback - can sound both fast and open. The best of the breed sound razor sharp, fast and sweet, whilst 'breathing' effortlessly through the lower midrange and down on into the lowest registers. Subjectively this helps to create a fabulous sense of three-dimensionality to a system's soundstage. It also helps one endure congested, 'tizzy', over-produced recordings that might otherwise be judged intolerable.

Owning efficient loudspeakers is a prerequisite of living with such amplifiers, so this precludes the option for many listeners. There's a cost implication too, as tubes will need replacing from time to time. Moreover in really large, transparent systems with loudspeakers that attempt to deliver infra-bass, many valve amps will simply let go, failing to maintain precision.

PLAUSIBLE DIMENSIONS It would be a cliché to describe the sound of the Cyber 880A as 'lush and





sweet', but given simply-recorded female voice with piano accompaniment that's rather how it delivers. The bittersweet 'The Moon Is A Harsh Mistress' by the late Radka Toneff [Fairytales, Odin CD-03] was both intimate and easy on the ear, the shimmering reverberation tails of the piano notes decaying to silence in eerie fashion while Toneff's enchanting voice sounded delicate and her intonation was beautifully exposed. It's a pity this jazz classic has now been deleted and is difficult to find, as the straightforward, pure recording is fabulous and the '880A took me right into the recording space.

This amplifier sounded equally at ease with a digital recording of Joe Jackson on vinyl, the three-sided Big World album of 1986 [A&M JWA 3]. Despite the 'dry' balance of this live set the instruments were set out in a believable sound stage with plausible three-dimensionality, the weight and punch of the bass and drums in the track 'Right and Wrong' demonstrating that you certainly can rock with a modestly-powered valve

amplifier. What the amplifier fails to deliver, however, is the lightning-fast transient attack I have heard from lowerpowered single-ended triode designs, this push-pull 880A sounding a touch softened around the edges. It may take some nastiness away from recordings that display too much 'digititus', as Big World does for sure, but it also robs the music of vitality when such 'smoothing' is not what's wanted.

CASE IN POINT

Bob Ezrin's cavernous production on Peter Gabriel's eponymous first solo album proved a case in point. Always a difficult LP to reproduce

satisfactorily due to its wide dynamic range; a Japanese pressing on quiet vinyl is nonetheless a prized possession in my record collection [Polystar/Charisma 20S-100]. While the timpani and brass of the London Symphony Orchestra

ABOVE: The Consonance Cyber 880 comes in a 100W version employing 6550 output pentodes or this 30W version that utilises four 2A3 power triodes per channel

sounded powerful and majestic on 'Down The Dolce Vita', the bristling guitar break by Steve Hunter on 'Waiting For The Big One' lacked the bite and aggression that I'm accustomed to. Yes, the aforementioned cavernous

'The gritty rasp of

Cocker's voice was

robust, powerful

and emotive

scale and depth of the soundstage of this album was depicted in glorious fashion, but the slight blurring of transient information made

the production difficult to hear into fully.

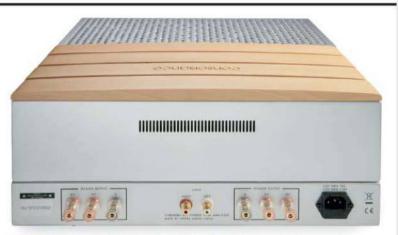
Nevertheless the sense of ease of music-making is undeniably alluring. While the infectious rhythm section of Sly 'n' Robbie on Joe Cocker's Sheffield Steel [Island ILPS 9700] might have lacked the nth degree of bottom end control and precision, the '880A, as with so many valve amplifiers, renders bags of detail that is neither etched nor fatiguing. The gritty rasp of Cocker's vocal was robust, powerful and emotive while sibilance in the recording was sufficiently reduced to make for a wholly engaging listen, start to finish.

Audiophiles entrenched in the solid-state camp typically characterise valve amps as sounding rolled-off in the frequency extremes, with soft highs and mushy lows. Yet such sweeping generalisations rarely apply when \bigcirc

LISTENING TO OPERA

If you subscribe to the notion that the enduring popularity of the valve amplifier can be attributed to the plethora of affordable models now coming from China, then the Opera Audio company of Beijing might justifiably take some of the credit. It was founded by Eric Shi Hui Liu in 1994, and the company's history is a common tale of an engineer making tube amps for himself as a hobby, before biting the bullet and deciding to set up a proper business venture. A decadeand-a-half later, Opera Audio has more than 50 employees and its Consonance brand name is known in more than 30 countries. Opera Audio is also the Chinese distributor of Well Tempered and Dynavector. It manufactures a considerable range of both solid-state and valve amplifiers, CD players, turntables and tonearms, with Eric Liu still creating all the designs himself.

VALVE POWER AMPLIFIER



ABOVE: Just one set of single-ended RCA input sockets is provided, along with speaker terminals offering 4 and 8ohm taps from the amplifier's output transformer

a power amp is partnered with appropriately sensitive speakers - and with my easy-todrive Townshend Sir Galahads the Cyber 880A could never be accused of sounding overtly soft, syrupy or coloured. But it was more enchanting with simple, audiophile recordings than with big rock productions.

SIMPLE PLEASURES

Eric Bibb's 'I Want Jesus to Walk With Me' from Spirit & The Blues [Opus 3, SACD 19421], an 'unplugged' performance if ever there was one, sounded utterly divine; you could hear with no difficulty how well Opus 3's singlepoint coincident-pair microphone technique had captured the direct and reverberant sound of acoustic guitar and voice in the venue. (Look at the small print in the sleeve notes, and you'll see that Opus 3's recording engineers have used mostly tube electronics in their recording chain!)

Where the Cyber 880A failed to thrill to such an extent was with a full-on 'blast' of stadium rock from Foreigner, for example. 1981's Foreigner 4 album was remastered for DVD-Audio in 2001 [Atlantic/Rhino 8122743669], bonus tracks including a couple of modern 24-bit/96kHz recordings of the band 'almost unplugged' that are simply sensational in resolution and dynamics.

As with so many modern rock recordings, these tracks are a little bright, too, and the '880A did nothing to disguise the fact, so there's not the obvious softening

of middle-to-high frequencies of which the amp might be accused. However, it did soften the dynamic impact of very low bass notes on 'Juke Box Hero' where it sounded a bit bogged down, the bass synthesizer line robbed of the snap that would otherwise enable it to drive the song.

Listening to Antal Dorati and the London Symphony Orchestra's 1959 Mercury recording of Stravinsky's The Firebird ballet [reissued as an SACD hybrid, 470 643-2] showed luscious texture and presence to winds and strings, even in the more dissonant, densely orchestrated passages.

Using loudspeakers that are not over-ambitious in trying to deliver significant acoustic output below 50Hz will be the key to audio bliss with the Consonance Cyber 880A, as it is certainly capable of delivering music in spades. ©

HI-FI NEWS VERDICT

There's little to dislike about the Cyber 880A and much to enjoy - even if this is not an amplifier for all seasons. With simple recordings it creates a beautiful sound portrait that rarely fails to enthral, while with dense recordings it can sound open and engaging. Avoid the largest of floorstanding loudspeakers that may show the amplifier's tendency to lose grip at very low frequencies and relish instead its lush and sweet midband.

Sound Quality: 70%



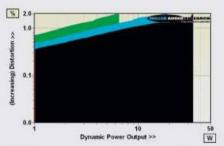
REPORT

CONSONANCE CYBER 880A (£2895)

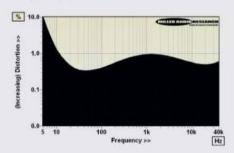
Regardless of configuration, Opera's combination of four 2A3 triodes per channel was never going to amount to a bottomless pit of power. At 28-29W per channel into 8/40hm (via 8/40hm taps) the Cyber 880A very nearly meets its 30W specification, up to a distortion limit of 2%, and exceeds this under dynamic conditions [see Graph 1, below]. Power consumption is between 200-210W regardless of load or output.

Sensitive speakers are as important for the Cyber 880A as the Quad II Classic Integrated amp reviewed last month, though the overall system response of the '880A is more greatly influenced by the speaker's impedance trend thanks to its 20hm output. Speakers with a falling treble impedance will have a more rolled-off response and vice-versa, a default 40hm load realising a drop of -2dB/20kHz via the 4ohm tap.

There's another key difference between the Quad and the Cyber 880A, aside from design architecture, and that's the quality of its valve matching. Manual bias adjust notwithstanding, it's not uncommon to discover stereo valve products whose performance varies quite considerably between channels, and so it is here. The left channel S/N ratio is just 67dB versus 79dB on the right (A-wtd, re. 0dBW) although distortion is lower through the left at 0.7-1.1% from 20Hz-20kHz [see Graph 2, below] versus 1.1-1.6% through the right. Distortion on both channels lifts to ~10% at a subsonic 5Hz (5W/8ohm) as the output transformers saturate. Readers are invited to view a comprehensive QC Suite test report for the Opera Audio/Consonance Cyber 880A by navigating to www. hifinews.co.uk and clicking on the red 'download' button. PM



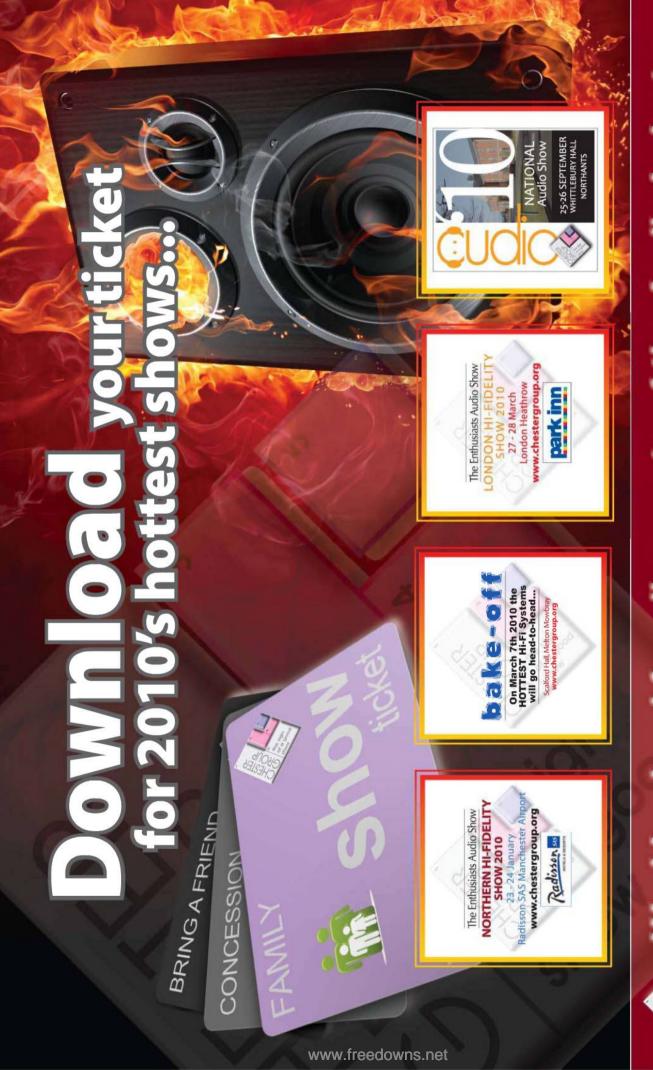
ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 10hm (green) speaker loads



ABOVE: Distortion versus extended frequency (5W/8ohm, 5Hz-40kHz). Transformer core saturation causes distortion to climb quickly at very low freqs.

HI-FI NEWS SPECIFICATIONS

Power output (<2% THD, 8/4ohm)	28W / 28W
Dynamic power (<2%THD, 8/4/2/10hm)	34W / 33W / 19W / 7W
Output impedance (20Hz-20kHz)	1.95-2.1ohm (4ohm tap)
Frequency response (20Hz-100kHz)	-0.1 to -1.95dB
Input sensitivity (for OdBW/30W)	191mV / 1040mV
A-wtd S/N ratio (for OdBW/30W)	78.9dB / 93.7dB
Distortion (20Hz-20kHz)	0.75-1.08%
Power consumption (Idle/Rated o/p)	204W / 211W
Dimensions (WHD)	430x190x450mm



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Three-way floorstanding loudspeaker Made by: Sonus faber Supplied by: Absolute Sounds Telephone: 020 8971 3909 Web: www.absolutesounds.com



Sonus faber Liuto Tower (£3490)

Standing just over one metre high, this three-way will surely tempt you to a diet of heavy rock – played loud Review: **Ken Kessler** Lab: **Keith Howard**

aming hi-fi products after musical instruments is nothing new. For Sonus faber, it's a tradition. Although the Liuto [lute] features a conventional cloth grille instead of the stylised 'strings' of the dearer models, the Towers still led me straight to some guitar virtuoso material for an initial burst. I kicked off my time with the Liutos with doses of live Jeff Beck, plenty of Keb' Mo' bottleneck and loads of Joe Walsh via the Eagles. Acoustic or electric, hard or soft, simple or cluttered, the initial bursts pointed to pure Sonus faber.

What's important to reassure Sonus faber fanciers of limited means is that Liuto offers the signature tapered cabinet in a line-up costing far less than Cremonas or Homages. This hugely impressive model, a floorstander sharing catalogue space with a centre-channel and a small two-way, sells for only £3490, with no visible signs of cost cutting – luxury string grille apart.

Wooden finishes, too, were shown at September 2009's TOP Audio Show in Milan [see p10], but the Liuto was launched in – and looks best in – a luxurious highgloss black. The vented floor-standing enclosure houses three drivers, including a 25mm coated fabric dome tweeter with soft polymer surround. It crosses over at 3.5kHz to a 150mm thermo-moulded polypropylene textile cone midrange. Below this, up to 350Hz, is a 220mm aluminium/magnesium alloy cone woofer.

As for the cabinet itself, its lute shape was chosen for intrinsic stiffness, the avoidance of standing waves and unwanted resonance, and – Sonus faber being truly Italian – innately sexy looks. Even the side view is original, with the top and bottom sections extending beyond

RIGHT: The Liuto three-way has a cloth grille rather than the stylised 'strings' of the dearer Sonus faber models – its one concession to costsaving – but offers the signature tapered cabinet the back, the profile enjoying an almostautomotive flare (and flair). To enhance the cabinet's rigidity, the enclosure features internal ribs. Spikes are supplied, and the rear connections are via beautifully-made multi-way terminals. So, nothing to add for tweakers, except for decent cables.

AN AMPLITUDE OF AMPS

Matching the Liuto to a suitable system was never going to be a problem, as it is not a difficult drive. Given its price, rated impedance of 80hm and sensitivity of 89dB/1W/1m, with a recommended power handling range of 40W-250W, the specs cover a multitude of amps and a multitude of sins. With a factory-specified frequency response of 40Hz-25kHz, I was compelled to try it with amplifiers capable of delivering decent bass.

Taking all that on board, especially price, one would imagine that a sensible match for the Liuto would be the Krell S-300i, one of the bigger Prima Lunas or any of the myriad pre-power combinations from the likes of Arcam, Musical Fidelity, et al. And although I didn't have one to hand, I suspect that the Liutos will work like a dream with the Audio Research VSi60 – not least because they now share the same parent company.

During the weeks I enjoyed the Liutos, they saw service with the McIntosh C2200/MC2120 and the Anniversary C22/MC75 pre/power combinations, the Tsakaridis Apollo Plus, the Electrocompaniet ECI-5 and the Howes-modified Quads. Sources included the Marantz CD-12/DA-12 CD player and the Pro-ject Xtension turntable/arm with a range of cartridges, through the Audio Research PH5 phono stage, while speaker cables came from Yter with interconnects from Atlas, Kimber and Yter.

As the review pair had been run-in before I received them, the early session was approached without trepidation in that area: they sounded loose enough







to communicate flowing bass lines and plenty of speed in the upper registers, without any of the restraint or constraint exhibited by hardware that hasn't enjoyed a few hours of hard work, Indeed, I detected no changes over the next few weeks

RAUNCHY SIBLINGS

Instantly, the combination of a carefully-tuned port, a rigid cabinet and a cutting-edge woofer establish the Liuto as a serious performer for both bass extension and control. As the size and power handling would

suggest, nor was level an issue. That the Liutos can go loud without strain was made obvious when I heard them at TOP Audio in a room over twice the size of my 12x18ft studio. No clipping, no

compression, no plumes of smoke: the primary sensation is one of control and coherence regardless of the SPLs, and regardless of the genre. From unplugged roots music to self-indulgently loud blasts of Big Star, the Cars and Kings of Leon, the Liutos took everything in their stride.

However... because the Liuto Tower is so eager to play to the headbanger in you, they encourage the accessing of a diet heavy on saturated fats: you want to rock with these speakers, much in the manner of LS3/5As and old Quads that lead you toward recordings which showcase natural-sounding vocals. Another way of looking at them is how you feel when you get behind the wheel of a powerful car: you just gotta see what happens when you floor the accelerator. This is in direct contrast to what seems to have been a major part of the Sonus faber philosophy ever since the brand first appeared: a quest for refinement and delicacy. These are the Cremonas' raunchy twins.

It was no accident that the company created a series of speakers to honour the great violin makers of Cremona, or that Sonus faber always seemed to hark back to the days when speakers were sold according to the listener's preferred genre. And however much I am pro-rock and anticlassical, I have always found Sonus fabers to be among the ideal balancing acts in

audio. Those with long memories

will recall that Leven found the Guarneri, as genteel a speaker as has ever been made, to be capable of letting its hair down. With the Liuto.

it's the opposite effect. Wheatus' 'Teenage Dirtbag' is a masterpiece of pop-grunge, a deliriously schizophrenic treasure that juxtaposes acoustic guitar with the wall-of-sound that is heavy metal. Nasal vocals, ass-kicking percussion, automotive sound effects, organ flourishes - the Liuto presents them in the correct proportions, preserving an utterly mind-boggling array of textures. This is a track to which I simply won't subject vintage Quads, for example, which fail to convey the power, while even the Guarneris treat the performance the way a stern parent approaches a sloven teen's bedroom.

Part and parcel of this, of course, is physical scale. Wheatus via Liuto is an example of hard rock in all its room-filling majesty. One cannot imagine anyone failing to succumb to the sheer splendour 🗇

ALL IN A NAME

Italian nomenclature has always been a bit odd - I'll never forget the moniker 'Glowy' for a valve amp - but Sonus faber prefers something serious. Just as its name is Latin for 'Sound Factory', so do other model designations in its history provide both the basic identification of the product and a level of linguistic sophistication, like 'Extrema'. Leaving aside 'Toy', which is perfectly apt for its entry-level range, Sonus faber has turned to a core value for the series that replaces the Domus: 'Liuto' is Italian for 'lute', the shape the company has favoured since the birth of the Guarneri some 15 years ago. Quite how the Italians have managed to apply their high-end stylistic signature to less expensive models is simple: its construction methods have been revised for greater cost-effectiveness.

'No plumes of

smoke... the

primary sensation

is one of control and

coherence'



Roksan Warranty Notification

Effective 1st November 2009, all Roksan electronics and turntables supplied via authorised dealers are to be covered by a 5 year parts and labour warranty.* As a gesture to existing customers, this will also be extended to all current owners of K2 products.

In an age where product longevity and second hand resale values are constantly under threat, Roksan wish to reward their loyal customers by allowing their warranty to be transferrable from owner to owner. Thus, the warranty stays with the product from initial date of sale to 5 years old as long as it remains within the country of origin. * terms available upon request



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LOUDSPEAKER



ABOVE: Presenting an easy load to the amplifier, the Liuto Tower speaker is nonetheless sensitive to room positioning and is not designed for bi-wiring/amping

of this piece even with the levels not set to 'stun'. SPLs have little to so with it: the way the soundstage is occupied in all three dimensions adds the meat to the bone.

THE TRADE-OFF

Not, however, that the Liuto is without peer in this area. Because Sonus faber, like Wilson, is hypercritical of positioning, especially toe-in, the listener can dial in precisely the right amount of width and depth. What I found, though, is that the Liuto sounds better tonally when optimised for maximum width, rather than when positioned at the ideal balance between width and depth.

As far as trade-offs go, the loss is minimal, but it was not present, for example, in the much-dearer Cremona M. What you lose if you choose not to favour width over depth is a slight snap in the upper midband, a mild openness in acoustic instruments. Live Eagles recordings provided the most vivid glimpse of this, but I must stress that it's almost a matter of personal taste if you favour panoramic playback over the intimate.

It's not that the Liutos don't 'do' intimate. It's just that they sing when asked to overwhelm. Take out the Beatles' White Album and play 'Martha My Dear' followed by 'Helter Skelter' or more conveniently 'Why Don't We Do It In The Road' followed by 'I Will'. The Liutos will speak for themselves: they almost prefer the louder, larger and 'heavier' tracks.

So far, so unhelpful: I've portrayed the Liuto Tower as a rocker's refuge rather than the serious all-rounder it actually is. That's the curse of reviews. where one is required to use dry statements to explain sounds: the dream will be reviewing in the future, when download speeds allow for instant terabytes, so you can actually hear the sound of what the reviewer is trying to describe. My own inarticulacy should not deter you from auditioning the Liuto Tower, even if you have no desire whatsoever to play ZZ Top or AC/DC at 115dB. ()

HI-FI NEWS VERDICT

Dismiss any thoughts of the Liuto Tower as being an 'economy' Sonus faber. Aside from ultimate refinement and reaches of its soundstage depth, which cannot quite match that of the Cremona floorstander, this is a thoroughbred that sounds like it should cost £5000+. It possesses the sonic merits of a classy floorstander while, in common with all Sonus Fabers, looks better than any speaker has a right to.

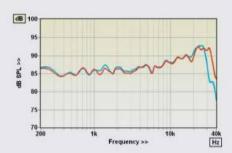
Sound Quality: 83% 0 - - - -

LABREPORT

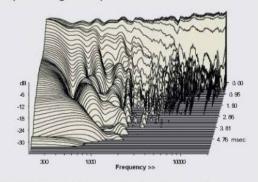
SONUS FABER LIUTO (£3490)

The Liuto Tower's specified 89dB sensitivity looks to be on the optimistic side as we recorded 86.8dB for a standard pink noise input and a little less (86.4dB) for music-shaped pink noise. This isn't surprising given that the Liuto records a creditable 46Hz bass extension (-6dB ref 200Hz) and, as usual for Sonus faber, presents a relatively easy load to the amplifier, with a minimum impedance modulus of 4.5ohm and a minimum EPDR (equivalent peak dissipation resistance) of 2.2ohm. Still, a nominal impedance of 60hm would be more representative than the quoted 8ohm. Moving these tower speakers closer to the wall behind will also have the effect of increasing the bass extension in-room.

The on-axis frequency response [see Graph 1, below] is largely flat to about 4kHz above which it rises gently but relentlessly to above 20kHz - something which is sometimes done to 'perk up' a reticent midrange driver. Although Sonus faber doesn't recommend this in the user manual, toeing the speakers out slightly from pointing at the listening position will have the effect of curtailing this treble rise for any listener who is bothered by it. Despite this feature the overall frequency response errors are quite low at ±3.0 and ±3.3dB respectively for the two speakers over the range 200Hz to 20kHz, as a result of the responses lacking any large peaks or dips. Pair matching is also good to within ±0.9dB, the largest disparities occuring between 1 and 4kHz. The cumulative spectral decay waterfall [see Graph 2, below] suggests that the curved sides help control cabinet resonances but a hash of low-level breakup modes is visible above 3kHz. KH



ABOVE: Pair matching is good but the forward response 'brightens-up' above 4kHz to 20kHz+



ABOVE: Waterfall shows a freedom from cabinet resonances but mild driver modes are seen from 3kHz

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	88.3dB/86.8dB/86.4dB
Impedance modulus min/max (20Hz-20kHz)	4.5ohm @ 124Hz 26.8ohm @ 20Hz
Impedance phase min/max (20Hz-20kHz)	-54° @ 68Hz 24° @ 20kHz
Pair matching (200Hz-20kHz)	±0.9dB
LF/HF extension (–6dB ref 200Hz/10kHz)	46Hz / >40kHz/35.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.9% / 0.2%
Dimensions (HWD)	1031x236x413mm

MM/MC phono preamp Made by: Lehmann Audio, Germany Supplied by Henley Designs. Telephone: 01235 511166 Web: www.lehmannaudio.de



Lehmann Black Cube SEII (£600)

This special edition MM/MC phono stage from Norbert Lehmann's stable is lifted to new heights with the addition of the outboard PWX power supply

Review: Andrew Sydenham Lab: Paul Miller

ince its introduction in 1995, Lehmann's Black Cube phono preamp has attracted quite a following thanks to its combination of flexibility and great sound quality. The latest incarnation of this 'affordable high-end' MM/MC stage, the SE II, sees the original utilitarian plastic case replaced with a very solid non-magnetic aluminium housing that includes an 'anti-resonance' treatment on the top surface. Our sample sported an attractive silver brushed aluminium facia panel, but the Black Cube is also available in, somewhat unsurprisingly, black. In either guise, its 114x124mm footprint allows the unit to sit unobtrusively next to any record deck.

PREMIUM PSU

A captive two-metre shielded cable terminating in a Neutrik connector joins the Cube to the PWX 30VA high current power supply, which employs a weighty toroidal transformer, premium foil capacitors and metal foil resistors. This amply long cable allows the PWX power supply to be positioned well away from sensitive or poorly screened cartridge/arm combinations - always good practice to avoid interference. The

LEHMANN'S LEGACY

Developed and manufactured in Germany since 1988, Lehmann's range of audiophile products has grown to include the Black Cube Stamp Power amplifier and excellent Black Cube linear headphone amp, which earned itself an 'Outstanding Product' accolade in the October 2009 issue of Hi-Fi News.

Designer Norbert Lehmann is an audio engineer with an enviable reputation in the pro-audio world and his phono stages have become objects of desire among vinvl aficionados ever since the Black Cube was first introduced in 1995.



supplied power cord is detachable and I replaced it with an Audusa mains cable for the purposes of the review.

The Lehmann Black Cube SE claims to be compatible with practically all available cartridges from high output MMs to low output MCs. Six sets of easily accessible DIP switches on the base of the Cube allow switchable gain for MM and MC cartridges, with three preset loading options plus a custom slot for a user's choice of resistor adding to its flexibility. Sixteen possible filter curves between 7Hz and 90Hz are available, through a combination of switches, to fine-tune the Cube's bass roll off.

Lehmann's range of phono stages culminates in the £3250 Silver Cube, so with such an illustrious sibling I was keen to find out what the Black Cube SE II could offer. As my source I used an Ortofon 2M Red moving-magnet cartridge mounted in an SME 3009/ Audio Origami arm atop a Garrard 401 deck modified with a Kokomo bearing. To these ears this classic combination updated and modified – snaps at the heels of many a 'superdeck' and I felt it would reap benefits from a relationship with a quality phono stage.



No sooner had the stylus hit the first groove than I was struck both by the clarity and space between instruments and the width and depth of the well-defined soundstage before me. Clearly, I was dealing with a very capable and musical performer indeed.

First up for the musical workout was Peter Gabriel's fourth album [Charisma PGMC4] which boasts a vast dynamic range thanks to the unique percussion and synthesiser sounds used. Via the Black Cube this complex production was played out with fine resolution and timing. Indeed, Shock the Monkey was a revelation, its attack and decay being wonderfully precise. True, I have heard tighter, deeper bass from this track, but all else was sweet and satisfying.

If I ever I need to persuade an analogue atheist of the truth of the cause then it's Dire Straits' eponymous debut album [Vertigo 9102 021] I hire as evangelist. From the Cube, I was looking for accuracy. None of the passages ever sounded rushed or blurred; rather, it felt as if the Knopfler brothers had all the time in the world. Never was the tonal quality over-rich, and I basked in a presentation that walked that tricky line between warmth and precision.

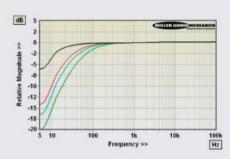
However, perhaps the Cube's real strength is its midrange performance. On The Band's Stage Fright [Capitol EA-SW 425] I hung on to every word of 'Daniel And The Sacred Harp', the breathy quality of Richard Mauel's foot-pumped organ having real palpability while the

LAB REPORT

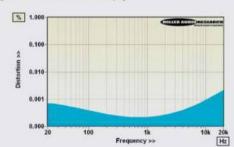
LEHMANN BLACK CUBE SE II (£600)

Without question, the Black Cube SE II is the most impressive sub-£1000 phono stage to grace the lab bench in recent times, exceeding Lehmann's own specification in most instances. The MM/MC gain is +36dB/+56dB which equates to an input sensitivity of 16mV and 1.6mV, respectively, to realise a 1V output. If you are saddled with an extremely low output cartridge then Lehmann does include an extra +10dB gain option under the lid. Otherwise, this phono preamp offers a useful 150mV/15mV input overload margin (a headroom of +30dB over the standard 5mV/500µV input levels) together with fabulously wide 86dB (MM) and 77dB (MC) A-wtd S/N ratios. This is a very quiet phono stage. Distortion, too, is uncommonly low - as low as 0.0002% through the midrange and typically <0.001% over the bulk of the audio range [see Graph 2, belowl,

Lehmann offers numerous low frequency response options for the Black Cube SE II, with its default setting (a specified 7Hz corner frequency) rolling off to -1.1dB/20Hz. The 23Hz, 30Hz and 47Hz options reach 20Hz at -4.5dB, -6.1dB and -8.9dB, respectively [see Graph 1, below]. The last of these represents quite a substantial LF roll off which contrasts with the extended ultrasonic response of the preamp, reaching out to +0.2dB at 100kHz. Few cartridges are capable of reproducing anything close to this bandwidth, Ortofon's Cadenza series being a notable exception. Readers are invited to view a QC Suite test report for Lehmann's Black Cube SE II MM/MC phono amp by navigating to www.hifinews.co.uk and clicking on the red 'Download' button, PM



ABOVE: RIAA corrected frequency response from 5Hz-100kHz [black = flat (7Hz); red = 23Hz; blue = 30Hz; green= 47Hz corner freqs.]



ABOVE: Distortion versus frequency is extremely low (MM sensitivity, 47kohm loading), at 1V output

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm/100pF / 100-470ohm		
Input sensitivity (MM/MC re. OdBV)	15.67mV / 1.60mV		
Input overload (MM/MC)	150mV / 15.0mV		
Maximum output (re. 1% THD)	>7V		
A-wtd S/N ratio (re. 5mV/500μV in)	85.9dB / 77.2dB		
Frequency response (20Hz-20kHz)	-1.1dB to +0.17dB		
Distortion (20Hz-20kHz, re. 0dBV)	0.0002-0.0022%		
Power consumption	2W		
Dimensions (WHD)	114x45x93mm (not inc. PSU)		



LEFT: Three pairs of DIP switches act in combination to select between four gain settings (between 36-66dB) and a choice of 16 different bass rolloff frequencies extending from 7Hz to 90Hz [see Lab Report, opposite]

texture of the instruments and raw quality of the vocals were stunningly portrayed. If there was a rough edge to a phrase it was never glossed over, yet the freshness and beauty of the performance shone through.

LAID BARE

Nevertheless, experimenting with some recordings from my distant past I was not surprised to find that the Black Cube didn't take kindly to surface noise, blips and scratches. I heard the lot, while poor production and recording techniques were also laid bare. It's fair to say that in doing the job so well there is a 'what you see is what you get' aspect to the accuracy on offer here and that you'd never confuse the Black Cube with the more forgiving presentation of many a valve phono stage. Having said that, never did I feel that musicality was sacrificed for transparency.

Coming back to the Cube after having left it powered up over a weekend brought a perceivable improvement in the depth and breadth of the soundstage - not to mention an extra sweetness of tone. This was particularly noticeable when playing 'American Tango' from Weather Report's sublime Mysterious

Traveller LP [CBS 80027]. The silences between the musical phrases were inky black while the decay of the hi-hats was fully resolved. To find more depth and detail in music I know so well was a remarkable experience and I warmed to this little gem of a phono stage all over again.

Niggles? The lack of an on/off switch is unfortunate as it means the the unit has to be completely unplugged from the mains to be powered down. But then the absence of such a switch might partly account for the remarkably low noise floor here. ()

HI-FI NEWS VERDICT

This is a true audiophile phono stage and, partnered with equipment of equal quality, the results are remarkable. Indeed, the SE II is difficult to fault even compared to competition in a much higher price bracket. The exceptionally low background noise allied to a fabulous rhythmic and tonal rendition make it worthy of consideration for those seeking the most detail from their vinyl without having to make a hyperspace price jump.





Furutech Evolution II (£480-£665)

Cryogenic treatment and a patented demagnetisation process lie at the heart of all

Furutech's audio cables from Japan. Are they the Samurai of wire?

Review: Paul Miller

able companies do not come much more hi-tech than Furutech as this small selection of its interconnect, speaker and mains cables serves to illustrate. Developed in Japan, all Furutech's power conditioning, cable and connector accessories are subject to its proprietary 'Alpha Process' [see boxout] which is evidently key to maximising their performance.

Connector integrity is also a core feature of Furutech cables. The RCA version of its Evolution Audio II interconnect (£480 for a 1.2m set) includes locking collets that clamp mercilessly to any unsuspecting phono socket. Similarly, the Evolution Speaker II cable (£665 for a 5m set) includes proprietary banana plugs whose split centre pin is expanded into 4mm amplifier/speaker sockets via a threaded wedge. You'd pull your speakers over before the cable came loose.

Even the Evolution Power II mains cable (£495 for a 1.8m length) has its story, with the connectors featuring a jumper system that connects all metallic parts in the IEC and three-pin blocks via a star-earth.

ALPHA PROCESS

All metal parts in Furutech's cables and connectors benefit from its proprietary two-stage 'Alpha Process'. This begins with cryogenic cooling in either liquid nitrogen or helium to temperatures at or below -195°C. The cycle of cooling and gradual warming to room temperature relieves microscopic stresses in the conductor's crystal structure, improving its performance. The final stage in Furutech's processing involves a preciselycontrolled demagnetisation using one of Sekiguchi's patented ring demagnetiser machines.

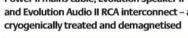
OCC copper is specified for the interconnect with 80x0.18mm strands in each of its symmetrical conductors while six bundles of 20x0.18mm OF-copper suffice per leg of the speaker cable. Each core of the screened mains cable houses seven bundles of 35x0.18mm OF-copper, the finished product emerging at just under 2cm thick!

SHINE A LIGHT!

Furutech's consistent design and manufacturing philosophy breeds a similarly consistent and recognisable signature into the sound of its audio cables. Both the Evolution II interconnect and speaker cable shine a subjective light on the presence and treble, illuminating the edge of percussion and metal-stringed guitars without obviously 'brightening' the overall balance. The Evolution Speaker II has the drier overall balance while the Audio II encourages a more incisive and impactful presentation.

The Power II mains cable, a massive umbilical suitable only for the most physically robust of separates, brings about a tautening of the soundstage, squeezing the timbre of harpsichord from Dan & the Electros' It's Never Too Late [Opus 3 SACD 22091] into sharper focus at the expense of some air, space and a 'tensing up' of an otherwise relaxed acoustic. You'll 'see' a difference with some TVs and projectors too.

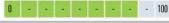
ABOVE: (Clockwise from top) Evolution Power II mains cable; Evolution Speaker II and Evolution Audio II RCA interconnect - all



HI-FI NEWS VERDICT

Although many might claim it, very few audiophile cable products can match the precision manufacturing of these Furutech components. Science rather than snake oil is the order of the day here with the Evolution Audio II interconnect emerging as the potential star of our trio under test. Any or all of this Evolution II series could enhance your system's perceived resolution or tend to make it seem a little too 'hi-fi', depending on taste and choice of kit.

Sound Quality: 80%





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Lehmannaudio

Hi-Fi World's, David Price, explains through the Black Cube Decade, that "small is beautiful".

Black Cube Decade Phono Stage

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BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

Paul Hawkins looks at what's out there in the world of brand new vinyl re-issues and releases, this month bringing you a round-up of the best 2009 had to offer

he number of new vinvl releases showed no signs of abating as 2009 drew to a close, even if some of the titles hitting the racks in December had been promised earlier in the year. We were delighted to see the first four Neil Young LPs reissued, and while the third and fourth releases - Harvest and After The Goldrush - have been doing the rounds on the re-issue circuit for many years, we finally have definitive audiophile versions, cut from original analogue tapes.

Even more exciting is the first re-issue in living memory of Young's eponymous first release from 1969. Neil Young is an understated classic. The country elements of Buffalo Springfield are there from the outset with 'Emperor Of Wyoming', although the superb 'The Loner' was to hint at the heavy rock direction to come once Crazyhorse were on board.

The album closer, 'The Last Trip To Tulsa', has a Dylanesque quality to it. Is Young acknowledging the fact that Dylan's 1967 John Wesley Harding album broke new ground or is he laying down the gauntlet?

Aficionados will be aware that the Young album was remixed shortly after its original release, with the improved version placing the singer's vocals more prominently in the mix. It's this version that has been used for the new heavyweight vinyl release. To differentiate between the versions at the time, Reprise Records added Neil's name to the front cover, though the commercial success of Young's follow up album might have had something to do with that...



Young's Harvest - finally a definitive release cut from the master tapes



Neil Young's debut solo album from 1969 - 'an understated classic'

By the time Everybody Knows This Is Nowhere was released, Young and Crazyhorse were on fire, with tracks like 'Cinnamon Girl', 'Cowgirl In The Sand' and 'Down By The River' defining the singer's stance on where country rock should go next. Forty years on, hardcore fans would arque Young's most outstanding work was already behind him at this point, but Harvest and Goldrush were to prove the people's favourites, propelling the singer into the charts on both sides of the Atlantic and on to a hugely successful solo career.

TOM WAITS...

Tom Waits fans have had very little to complain about in 2009, with the release of two live albums. The first of these, Romeo Bleeding, was recorded live in Austin, Texas in 1978 but released on vinyl for the first time in 2009 by the elusive, yet prolific, Vinyl Passion label. The LP set catches Waits in a typically playful mood, and picks out classic tracks from the

then recently released Blue Valentine, Small Change, and Foreign Affairs. It's fascinating to pitch this album up against the brand new LP Glitter And Doom, which catches the singer live exactly 30 years later. These days there's a wealth of material for Waits to pick through and many favourites are here with new arrangements, interjected as ever with stories and musings in Wait's trademark gravelly tone.

By far the most impressive release though is the long awaited vinyl format of the 2006 warts 'n' all compilation entitled

PAUL HAWKINS

Paul Hawkins is co-owner of independent record store Diverse Music and the company's mail-order arm, Diverse Vinyl - now the UK's largest independent retailer of brand new LP titles. Paul also manages Diverse Records, overseeing the production of many audiophile vinyl LPs by an eclectic range of artists. See www.diverserecords.com for more.

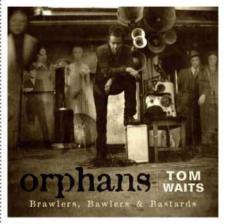


Orphans. Not just a must for the Waits completist, but a superb place to start for the uninitiated, Orphans takes in a plethora of Wait's unreleased recordings from across his career, and is split into three themes, intriguingly titled Brawlers, Bawlers and Bastards, all showing Wait's incredible virtuosity. Brawlers features an uptempo set of ramblin' stompers and dirty blues jams, from the 12 bar blues of 'Low Down' to the satirical storytelling ramble of 'Road To Peace'. The second set, Bawlers, is packed with atmospheric lyrical balladry, like the live favourite 'Fannin Street'. Meanwhile, Bastards is a hodge-podge of experimental tunes, stories and covers.

This impressive set stretches to seven LPs for its vinyl format and is likely to be a limited edition making it an instant collectors' item. I urge you all to put your name down for this set immediately!

A CAPITOL AFFAIR

The blitzkrieg of re-issues from the US continues, thanks to the ever impressive Capitol Vaults (www.fromthecapitolvaults. com). But then, what an amazing range of titles it has to pick from. When it comes to releases, the difficult part for a label like this is to strike the right balance between offering popular titles and something a





JAMIE CULLUM THE PURSUIT

little different. So it's no surprise to see The Beach Boys' Pet Sounds and Surfs Up alongside a couple of earlier gems in the form of Today and Summer Days (And Summer Nights). Both albums are pure pop classics with numerous hits we all know and love, although Today does throw up a few lesser known memorable moments, such as 'She Knows Me Too Well' and 'Please Let Me Wonder'.

It's a similar story with the latest Frank Sinatra reissues on the label. Again we're presented with new 180g versions of undisputed classics - this time Come Fly With Me and Come Dance With Me - but alongside these is In The Wee Small Hours, which is a less well remembered album from 1955. Just five years into his career, ...Wee Small Hours is notable for being Sinatra's first release on 12in vinyl. It's also one of his most jazz-styled releases, being focused on Nelson Riddle's fluid reconstruction of the standards featured

rather than the crooner classics. Frank comes across as a lowly figure, amid a sparse production, fitting the album's title and theme throughout.

Finally, Capitol Vaults exhausts what was probably the best The Band had to offer. The

band's first two releases are, without question, two of the most influential albums to come from the folk rock and country revival of the late '60s/early '70s. A follow up was always going to be difficult, and Stage Fright was a stark, honest autobiographical record with both its title track and 'Shape I'm In' demonstrating an emotionally drained band, struggling to keep up with the monster they'd created. On the other hand, Cahoots is by no means a bad LP, but the lack of standout material makes it less memorable than

earlier releases. The musicianship is still very much in evidence, even if the format is more akin to a jam session than a body of work. It's no surprise that the guys took four years to follow up this LP, by which time the world had moved on. A contract-filling sixth album was to be the final curtain call for The Band, who in retrospect

had become some of the unsung heroes of pop.



Jamie Cullum and Norah Jones have much in common. Both are pianists who started their recording careers in 2002, have albums on respected jazz labels, and both

'The blitzkrieg

of re-issues from

the US continues.

thanks to

Capitol Vaults'

have their fourth LPs out at the moment. More importantly, both artists have redefined what is meant by 'popular jazz', crossing over neatly into intelligent pop and attracting a much wider audience as a result.

On her fourth album,

The Fall, Jones has teamed up with Jacquire King, the producer behind recent Kings of Leon, Tom Waits and Modest Mouse albums, and while the sound remains unmistakably hers, it moves slightly away from the sultry jazz sounds of earlier work and puts an added emphasis on rhythm, bringing her own quitar playing up front.

As if to emphasise the change in direction, Norah has switched labels from Blue Note to Parlophone.

Like Jones, Jamie Cullum is looking to break away from the 'jazz pianist' moniker

> and if ever an album sleeve was a hint at what to expect, the singer standing nonchalantly in front of an exploding piano sets the scene perfectly.

The Pursuit is Jamie's strongest album to date, finding the Essex-born crossover jazz pianist in eclectic mood. The set starts in traditional mode, with Jamie on the keys, backed by the Count Basie Orchestra for the Cole Porter classic 'Just One Of Those Things'. But from then in, expect the unexpected, as Jamie tries his hand at a variety of instruments and



Norah Jones' The Fall -'redefining popular jazz'



Jamie Cullum signals change with an exploding piano adorning Pursuit, and US online re-issue site, Capitol Vaults

sounds (hurdy-gurdy anyone?), on many of his own compositions.

The mix of traditional and modern leaves us wondering where Jamie's going next - especially now his piano's blown to pieces! The limited-edition 45rpm gatefold double LP also has two bonus tracks!

DIVERSE RECORDS

Finally, a mention for a long awaited release on Diverse Records. Richmond Fontaine's We Used To Think The Freeway Sounded Like A River can now be found on the shelves of respectable record emporiums worldwide!

Equal parts Uncle Tupelo and Charles Bukowski, or Ryan Adams' band Whiskeytown meets the gritty realism of the soundtrack to the movie Heartworn Highways, Richmond Fontaine is the brainchild of singer, guitarist, and songwriter Willy Vlautin, who's since become an established author of contemporary fiction.

The new album, seen as the band's most accessible yet, was produced once again by JD Foster (Calexico, Richard Buckner, Laura Cantrell), who was at the helm for the last three albums. This LP signs off a record year for the Diverse label (pun intended), with no fewer than seven superb releases. O

Vinyl Release

BEHIND THE MUSIC WITH HI-FI NEWS & RECORD REVIEW

U2: The Unforgettable Fire (Limited Edition)

U2's fourth album was a watershed. Gone was producer Steve Lillywhite to be replaced by Brian Eno. With the LP now on 180g vinyl, Steve Sutherland listens again...

e're talking tattoos. Or, to be precise, the big guy with the beard at the far end of the table with the blonde on his lap is holding court on the subject. He's talking about the crude portraits of Chairman Mao and Arthur Ashe that Mike Tyson's been parading on his biceps since he was recently released from gaol.

'It's Mike's way of telling the world, "Hey I ain't just a hunk o' meat. I gotta brain",' says the big, beardy guy.

'He's been studying in his cell. It's a literary thing.'

Talk turns to which book you'd have tattooed on your torso. The blonde says it would have to be Evelyn Waugh's Vile Bodies. The quiet quy sitting opposite says, 'Something by Kafka. Metamorphosis. But, uh... that's too long. So just a cockroach with Gregor written underneath.' Then he goes back to gently strumming a guitar.

The handsome Australian dude in the straw hat sitting to our left says he almost had an Aboriginal symbol, The Snake Dreaming, inked on his arm once but was warned that, without sacred sanction, he'd have put himself in danger of the bone pointing, a dreaded curse that was said to have done in many a man.

That girl over there? Oh, she's way too busy learning how to dance Manc-style to the pre-release of Black Grape's debut album that we brought over with us to sings in the studio, he sings three lines then calls for more pasta. Or what Frank Sinatra said to the big guy with the beard when they last both shared a limo.

NICE WORK ...

Just in case you were wondering, we are a few miles inland from Nice in the South Of France, dining on the terrace of a 450-year-old villa that the guy in the straw hat is currently renting. I've spent

all afternoon in the nursery, sleeping off a gargantuan hangover accrued the night before in Soho helping Blur celebrate 'Country

House' beating Oasis's 'Roll With It' to number one and hoping that my snoring won't wake the two little girls called Peaches and Pixie who are taking their afternoon nap.

I'm here because the guy in the hat is Michael Hutchence, the infamous singer

care about tattoos. Or how, when Pavarotti

quiet quitar strummer - is renting a villa nearby. And the big bloke? That's Bono, who's here, fresh from taking his kids to a fair, with his wife Ali and his bass-playing buddy Adam Clayton.

'The blonde in Bono's

lap is Paula Yates, just

flown in from London'

alongside NME.

The blonde on Bono's lap is Paula Yates, just flown back from London where she's run the gauntlet of tabloid hacks and

paparazzi who've been hounding her since she left her hubby, Saint Bob Geldof, for Hutch a few months back.

Why am I telling you all this? Well, apart from it being my most fabulous name-dropping jet-trash story ever, whenever I hear U2's Unforgettable Fire, which has just been re-released on vinyl to celebrate its 25th anniversary, I think back to that idyllic evening in August 1995. And what I remember most, apart from how fond Ms Moss was of using the 'c' word, was how, after dinner, Bono and I took a stroll arm-in-arm through the olive groves. And what struck me as we ambled under the stars was how curious he was about everything.

U2 - The Edge (guitar), Bono (vocals), Adam Clayton (bass), Larry Mullen (drums); The Unforgettable Fire saw the band re-invent its sound for the first time

CURIOUS FEELING

Rock stars aren't meant to be curious. They're supposed to be full of themselves, egocentric, self-centred, prima donna bastards. Or at least that's what I'd come to believe having spent a good decade and a half watching them preen while other's fannied about all over them like they were the centre of the universe.

In fact, to this very day I've only ever met two curious rock stars. David Bowie, full of interest in everything. (He once said

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.



with Australian rock band INXS, and

I've flown out to talk to him about his

forthcoming solo album for a magazine

that used to be called Vox that I'm editing

guests. The dancing girl is Kate Moss who, with her boyfriend Johnny Depp - the

Let me introduce you to the rest of the



Priced £18.90, the 180g vinyl re-release of The Unforgettable Fire is available from www.diversevinvl.com

to my girlfriend: 'That's a nice hat, where on earth did you get it?") And Bono.

Bono was into everything too and we spent most of our stroll discussing a brilliant book called The Spirit Of Crazy Horse about the American Indian Movement's 1975 bloody stand-off with the FBI which made a political martyr of a chap called Leonard Peltier. Coincidentally Bono had just optioned the movie rights. Needless to say, we got on like a house on fire.

And it's in this spirit of curiosity that The Unforgettable Fire was forged and the long future of U2 assured. From the outset the band determined that whatever happened, the album - the band's fourth was going to be something different from its predecessors.

A DOSE OF ENO

For starters they jetissoned their successfully tried and tested producer Steve Lillywhite and persuaded the sceptical ambient egghead Brian Eno to take on production duties, bringing with him engineer and superstar producerin-the-making Daniel Lanois. Then, in a further punt at the arty over the assumed, they camped out in Slane Castle rather than a sterile studio, to test themselves against the random and see what happened when they soaked up the vibes.

The result, according to Bono, was an impressionist painting rather than an advertising slogan. Other albums that appeared in 1984 were Prince's Purple Rain, Bruce Springsteen's Born In the USA, The Smiths' debut, Bon Jovi's debut and Spinal Tap. There's a bit of all of them in Unforgettable Fire, an album which is a rare thing indeed - a work way more than the sum of its parts.

There are four pillar tracks on the album which, come to think of it, is three more than most bands can boast in an entire career. They are: the opening track,



'A Sort Of Homecoming', which weds an ambient shoegazey haze à la My Bloody Valentine to Bono's big Wordsworthian romantic evocation. There's lots of wind, rain and snow - a forecast of tons more stormy weather to come.

Then there's the hit single 'Pride (In The Name Of Love)', written by Bono after reading a book called Let The Trumpet Sound: A Life Of Martin Luther King Jr and a biography of Malcolm X. The lyric may be sketchy (and inaccurate, King was shot at 6pm, not, as the songs says, in the early morning of April 4) but the emotional pull is heady and massive, Bono completely lost in the moment, the Edge doing incredible stuff with the guitar that no-one had ever done before.

The title track, inspired by an exhibition commemorating the victims of the bombing of Hiroshima, is a tour-de-force balanced between yearning and hope. And finally there's 'Bad', the longest lit blue touch paper in the history of rock, written in an attempt to replicate the rush of taking heroin, never quite climaxing, always on the verge of explosion, both organic and orgasmic.

Not since Jim Morrison had a singer captured the dramatics of live performance so thrillingly in the studio. And not since Hendrix had a guitarist discovered an instantly identifiable and endlessly fascinating style. Eno and Lanois may have been the catalysts but it was

Bono and the Edge who had the guts to take the leap into the unknown which catapulted U2 from being a rock band with all the clichés and constraints that implies, into a musical entity for which there would never be any future boundaries.

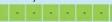
Of course, for others present on that lovely August night, things didn't turn out quite so well. As I did the responsible thing and, with two magazines to edit on the morrow, sidled off to hit the hay, I recall a little man arriving on a moped with a little bag of something or other.

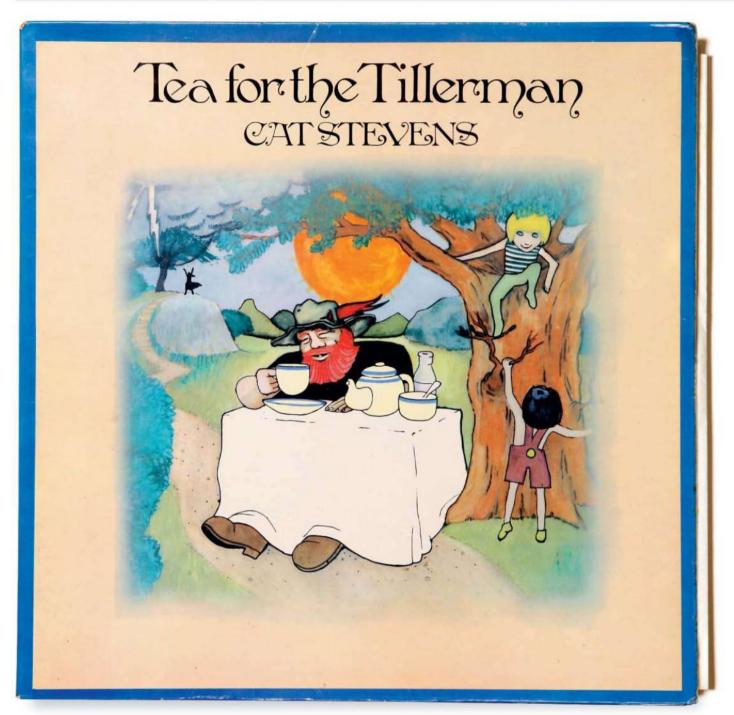
I often wonder whether Hutch ever got that tattoo. O

RE-RELEASE VERDICT

Better stereo imaging, wider bandwidth... from the crisp, plosive percussion to the shimmering hypnotic guitars, each element here enjoys not only greater presence but, compared to an original pressing, a sweetness in the highs that makes for a superbly well ordered presentation. Such is the texture on offer that the bass guitar sounds almost fretless at times, though surprisingly for a virgin vinyl re-issue, surface noise was noticeable. A limited-edition release, it also comes with a 16-page booklet. HFN

Sound Quality: 80%





Cat Stevens ... The Tillerman

Released in November 1970, Cat Stevens' second album on the Island label has become a classic, loved as much for the enduring appeal of the songwriting as the sheer quality of the production. It was also the album on which the singer finally found his true voice Words: Johnny Black

eenage singer-songwriter Cat Stevens (now known as Yusuf Islam) hit the ground running in 1966 with a string of memorably catchy hits, including 'I Love My Dog' and 'Matthew And Son'. For such a young pop songwriter, he was remarkably sophisticated, employing clever musical arrangements and choosing unusual subject matters for his lyrics.

Within a couple of years, though, Cat fell prey to the rock 'n' roll lifestyle, drinking too much, working too hard and taking too many drugs. After months in hospital with more or less self-inflicted tuberculosis, he emerged determined to re-build his life and his career.

MUSICAL BEGINNINGS

A lifelong lover of stage musicals, he was working on his own musical, Revolussia, in 1969, when he composed 'Father And Son', which turned out to be the first song written for Tea For The Tillerman.

'I had a meeting one day with Chris Blackwell of Island Records to talk about the musical,' he explains, 'but when he heard "Father And Son" he got more interested in me than in the musical and asked if I'd like to sign to Island.'

In the event, Tillerman was not Stevens' first Island album. That honour fell to Mona Bone Jakon which stalled at No 63, failing to provide the second breakthrough he so desired. The album did,



however, deliver one hit single, 'Lady D'Arbanville', and more importantly, it brought Cat together with Paul Samwell-Smith, a former member of The Yardbirds who had found a second career as a highly respected producer, and Alun Davies, a gifted quitarist who would become Cat's right-hand man for years to come.

'After I left hospital I was on a writing spree,' he remembers. 'I wrote two albums-worth in a very short period, so some songs which could have been on Mona Bone Jakon ended up on Tea For The

> Work on Tillerman started in the summer of 1970. Demos had been recorded at Advision and Island's Basing Street studio, but

Tillerman.'

the bulk of the completed tracks were done at Morgan Studios in North London.

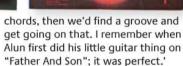
'We would run through the songs on the day of the recording,' he recalls. 'We wouldn't have learnt them beforehand. I'd be playing the

Born Steven Georgiou on the 21st July 1948, the singer chose the stage name Cat Stevens in part because a girlfriend said he had eyes like a cat

The inside of the original album's gatefold sleeve pictures the singer sitting cross-legged while staring meditatively into a pool. It signalled that spirituality was to a play a major part in Stevens' work from this point on

Stevens on stage in the early 1970s, at the height of his fame

Advert for a gig from 1967. In December that year, Stevens released the commercially unsuccesful Masters LP. One song from it, 'The First Cut Is The Deepest', he sold to P P Arnold for £30. It was a huge hit for her...



Alun Davies (who, like most of his close associates, refers to Cat as Steve) recalls those sessions fondly, 'Tea for the Tillerman was my favourite album of Steve's. It was so spontaneous and quick in the making. I loved doing that album. I got very bored doing Catch Bull At Four because I think it took too long and we worked in three different studios on it.'

BEST-LOVED SONG

'Father And Son' has, of course, gone on to become arguably Stevens' best-loved song, but it was also a breakthrough in his singing technique. 'A big moment for me was finding my voice in "Father And Son",' he reveals. Lyrically, 'Father And Son' begins with a father trying to convince his son not to leave home, before becoming a conversation between the pair, with Cat singing the verses in two distinctly different voices.

It was as if I could hear my own father within me. I'd done a lot of songs up to that time, but that >



The double

bass was held

together with

duct tape'



VINYL ICONS

PRODUCTION NOTES

Tea For The Tillerman was recorded in Morgan Studios, Melrose Avenue, just off Willesden High Road in north London. Morgan was a highly rated studio, particularly in the '60s and '70s, when it was regularly in demand by British rock acts like Pink Floyd, Paul McCartney, Supertramp, Blind Faith, Yes, The Kinks, Led Zeppelin and Black Sabbath.

'The studio was owned by a guy called Barry Morgan,' remembers Yusuf Islam, 'In those days, Morgan was quite unique because it had its own little café where you could hang out between takes and sessions. It was more like a club. I also remember we had to run up and down the stairs to hear what we'd recorded because the control room was up above the studio.

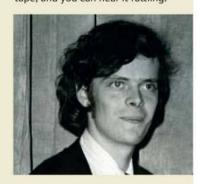
The album was recorded onto 16-track 3M and Studer machines, using 2in tapes running at 15ips.

'One important thing was that they had Dolby,' remembers Islam, 'which gave great hiss reduction, and Paul (producer Paul Samwell-Smith) was into Dolby. Hiss had always been a problem, especially with acoustic guitars, so we needed to find a way to keep the sound pure, clean, acoustic but with as little hiss as possible.'

Producer Samwell-Smith has some particularly vivid recollections of recording 'Wild World', which he revealed in the sleeve notes to the 2008 DeLuxe Edition.

'Steve's quitar was an Ovation. and I used the electric pick-up signal on the left of the stereo and the acoustic microphone signal on the right, which gave it a very present and immediate sound.

He also mentions that the double bass, played by John Ryan, 'was held together with band-aids and duct tape, and you can hear it rattling.'



was a special moment. Listen to Mona Bone Jakon, for example, and I'm not guite sure of my voice; "Lady D'Arbanville" was close, but it wasn't yet that belting out.'

VOCALS FIRST...

Also among the first batch of songs Stevens wrote for Tillerman was 'Where Do The Children Play' whose basic track, according to producer Paul Samwell-Smith, 'was recorded with just guitars and voice. Steve played the basic guitar, Alun Davies the second quitar. Everything else was overdubbed later, individually, which is why the drums lurch a little. Steve played the electric piano and the vibraphone and we did the backing vocals together.'

Asked about Samwell-Smith's contribution to the album, Stevens says, 'Paul was the kind of producer who created a space in which I could work, and he was great at capturing the moment.

If I wanted his vocal in there. he'd come down and do it, and he would express his feelings about the arrangements, but a lot of the time it

was just the guys who were playing, : we kind of did it ourselves.'

'Where Do The Children Play', one of Stevens' many examinations of the dilemmas of childhood, refers directly to his own schooldays.

'In our little school in Macklin Street, just off Drury Lane, there was no space. Our playground was literally in the basement with just a little piece of it open to the air. Later, I read an article in Time Out about the disappearing of green spaces from towns, and the need to maintain a balance, and that's what

The song is subtly enhanced towards the end with a lively string arrangement by Del Newman who has also contributed his gifts to tracks by Elton John, Paul McCartney and many others.

'I would give Del a brief,' notes Stevens. 'I would specify warm cellos and sing lines to him and things like that. Alan Tew (another arranger who worked with Stevens) always said he could hear all my arrangements in the songs already.'

Tillerman also includes the powerful, Spanish quitar influenced 'Wild World', which had been a hit for Jimmy Cliff three months before Stevens released the album. In the course of my interview with Yusuf Islam, 'Wild World' was the only song that seemed to give him pause, making him reflect for a few moments before replying.

'It has mirrors of memories and my relationships, and parts of my relationships with certain people, one particular girl perhaps of that time, Patti D'Arbanville, Really, though, the song was about me.

'It was me leaving a comfortable zone for somewhere I didn't know. I'm the one that's going into the "Wild World"."

EARL SPIRITUALISM

'New listeners

should pay

attention to the

track "Sad Lisa"

Another key Tillerman song which has gone on to establish itself as a fan favourite is 'On The Road

To Find Out', of which Paul Samwell-Smith remembers 'Steve and Alun went to Scotland to do a gig, Aberdeen I think, and I went

along for the ride. A long wait in the dressing room on a grey and rainy afternoon led to Steve putting this track together with Alun.'

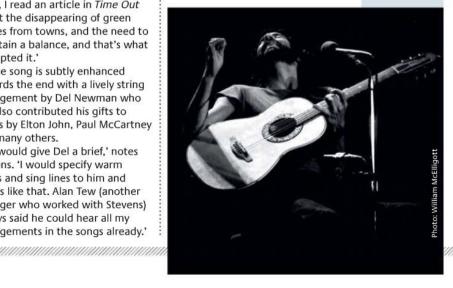
No doubt that's the reason why the track opens with beautifully counterpointed fingerpicking and harmonics on their guitars, but the track is also interesting as one of the earliest clear indications that Stevens would go on to explore the

The singer converted to Islam at the height of his fame in 1977. adopting the Muslim name. Yusuf Islam

The rear cover of the original LP. with lyrics to all 11 songs; the title track was used on the closing credits of Ricky Gervais' TV series Extras

Producer Paul Samwell-Smith. a founding member and bassist of The Yardbirds, much of whose music he co-produced and engineered before leaving the group in 1966 to pursue a full-time career in producing

Cat Stevens performs sonas from the album in Boeblingen, Germany, in 1976







world's religions to find his own personal salvation.

There isn't space, even in a feature of this length, to adequately detail every song on Tillerman, but new listeners should make sure to pay particular attention to the gorgeously moving 'Sad Lisa', the dynamic 'Hard Headed Woman' and 'Into White' which guitarist Alun Davies has called, 'the palette that painted Tea For The Tillerman'.

COVER ART

The album closes with the title track which, aside from its multitracked homage to 'Oh Happy Day' by the Edwin Hawkins Singers, is one of the least memorable cuts. It did, however, inspire the album's charming cover painting.

'I originally wanted to be an artist,' points out Yusuf, 'I studied at the Hammersmith School Of Art, but then music took up most of my time. Even so, I still loved painting, so I'd written the song and just decided to illustrate it, and that became a style with me, to design and illustrate my own album covers.'

Tea For The Tillerman was released on November the 23rd, 1970 and, amazingly in retrospect, it stalled at No 20 in the UK. Happily, spurred by an acclaimed American tour, the album launched him in the USA, reaching No 8 in the Billboard chart and going on to earn a triple-platinum certification.

The follow-up, Teaser And The Firecat, was even more successful, soaring to No 3 in the UK and No 2 in America, but Tillerman remains in the hearts of many as the definitive Cat Stevens album. ©

Alternate Format Discograph



During my interview with Yusuf Islam for this feature, he regaled me with an intriguing factoid. 'Did you know,' he asked me, 'that "Father And Son" was the first song ever turned into an MP3? It was a British scientist, working for Apple. He chose it because it had incredible sonics, acoustic resonance and clarity.'

If true (though the Fraunhofer Institute might disagree), then this discography can be seen as a bona fide part, however small, of the history of sonic innovation.

ORIGINAL GATEFOLD LP (1970)

Issued in a handsome Cat Stevens' illustrated gatefold sleeve and bearing the nostalgia-inducing pink Island Records label, the original Tea For The Tillerman release [ILPS 9135] was considered something of a standard-bearer in terms of its faithful reproduction of acoustic rock sounds. The recent arrival of Dolby sound reduction systems no doubt contributed to its perceived clarity, but the richness of its orchestral string sounds, the brightness of the acoustic guitars and the depth of the growling double bass all point to rather more than just a just a flick of the 'new technology' switch.

This was an album made with concern for sound quality at all stages of the process, from the original recordings at Morgan Studios to Lee Hulko's painstaking mastering process at Sterling Sound in New York City. (Another of Hulko's claims to fame is that he coined Hulko's Law - 'A theory is better than its explanation'. Deep or what?) As Island Records boss Chris Blackwell later declared, 'Sterling got the most out of the masters we brought to them. They got the largest and cleanest sound that would track.'

This version was also released in the USA by A&M [SP 4280], and as a cassette [CS 4280].

OUADRAPHONIC 8-TRACK CARTRIDGE (1971)

A&M, no matter what you might read au contraire, did not release a quadraphonic vinyl album of Tea For The Tillerman. What they did put out, however, was this quadraphonic version on one of those loveably clunky, era-defining 8-tracks [8Q-54280]. If you want to hear Tillerman in quad, then this is the only way to do so.

MOBILE FIDELITY EDITION (1984)

Half Speed Mastered from original master tapes using the Ortofon Cutting System this [MFSL/MFOR 1-035] was pressed by JVC in Yokohama, Japan, on heavyweight 200g vinyl. It has long been revered for its expanded frequency range, sharp imaging and impressive stereo separation. Richly detailed and presenting admirable dynamic contrasts, this one gets collectors salivating and can be seen for sale online at prices over \$500. As part of its UHQR (Ultra High Quality Release) series, it was a singlerecord box set limited to 5000 copies, each individually numbered.

MOBILE FIDELITY CD (1988)

This Mobile Fidelity Gold 24K Ultradisc CD [UDCD-519] version was state of the art for the late '80s. There will be those who



remain faithful to the romance of the MFSL vinyl edition, but to these ears, this is the next best thing to being in the studio control room when the album was recorded.

REMASTERED VINYL (2000)

This version [842 352] was a 180g re-mastered vinyl edition originating from Germany.

REMASTERED CD (2000)

This appeared as part of the Island Remasters series [546 884] claiming enhanced sound. No bonus tracks, however.

180g VINYL (2008)

To celebrate the 60th anniversary of the long-playing record, Tillerman was knocked out yet again in 2008, this time as a limited-edition audiophile 180g vinyl release in packaging identical to the original album.

DELUXE CD EDITION (2009)

Universal's Deluxe Edition re-mastered CD re-issues are setting the standard in their field. Impeccably presented in a double fold-out package contained in a transparent slipcase, this latest version of Tea For The Tillerman was re-mastered last year in New York by Ted Jensen at the original mastering facility, Sterling Sound.

It includes a second disc of rarities (demos, live versions and broadcast versions) personally chosen by Yusuf Islam (formerly known as Cat Stevens).

Of particular interest is the sparse and impassioned demo of 'Wild World', stripped back to Cat's guitar and voice, and omitting the 'la la la' vocal intro which I always felt detracted from the power of the opening. For historians, of course, the two live cuts, 'Longer Boats' and 'Into White', from Cat's legendary 1970 performance at The Troubadour, Los Angeles, will

This was the show which, more than any other, won over the American audience and set Cat on the road to international stardom. Accompanied only by guitarist Alun Davies, these tracks perfectly illustrate how marvellously Cat Stevens' songs could stand on their own without any studio embellishments.

The Deluxe Edition also features a 28-page booklet boasting the complete original artwork and informative new liner notes by producer Paul Samwell-Smith, longtime guitarist Alun Davies, and Yusuf himself.



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AUDIOPHILE: VINYL











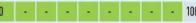


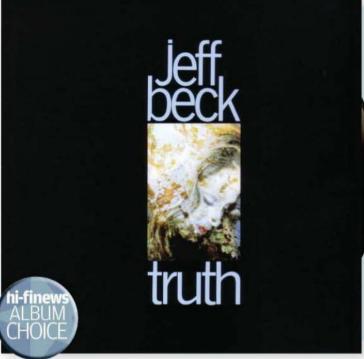


Sundazed LP5310 180g vinyl

Praising a mono LP when the stereo version is so mind-blowing might antagonise some of you, but this is a honey: Sundazed was wise to deliver unto us a fresh pressing of the ultrarare mono mix. The sound is punchier, bolder, and - yes - heavier than the stereo. This even more impressive edition of a classic, with Rod Stewart's finest early vocals, will anger those who believe, with much justification, that Truth was unjustly overshadowed by the debut LP of another Yardbird: Jimmy Page with Led Zep. Every track is a powerhouse, even a take of 'Ol' Man River'. But it's the closer, 'I Ain't Superstitious', that ensures this LP will forever remain amongst the Top 2 HM LPs of all time. KK

Sound Quality: 90%







COWBOY JUNKIES

Trinity Sessions

Classic Records/RCA RTH 8568 Quiex SV-P II 200g vinyl Hi-fi enthusiasts loved this because it proved, back in 1988, that less genuinely is more: this was recorded in a Toronto church with a single Calrec Ambisonic microphone, onto DAT, and yet it has all the sonic hallmarks of the purist recordings that made the late 1970s the Age of the Audiophile Pressing. It has a room-filling ambience which curiously suits the odd, sub-Velvet Underground affair: originals of an eccentric bent, country covers that sound like cowboys on Quaaludes. The atmosphere around vocals and assorted stringed instruments presages the joy that would come with the series of 'unplugged' sessions by various artists in the 1990s. KK

Sound Quality: 85%





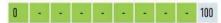
HAPSHASH & THE COLOURED COAT

Featuring The Human Host And the Heavy Metal Kids

Sundazed LP5272 180G vinyl

Never again will you bemoan the high prices of new vinyl, whether for audiophiles or merely normal collectors. When you see what a clean copy of this psychedelic rarity costs - bidding starts at £100 - you'll thank Sundazed for its largesse. One of the rarest of 1967's crop of oddities, it exemplifies no, make that 'sets the blueprint for' - leftfield English hippie eccentricity. The core was formed of graphic artists best known for the sleeve to Cream's Disraeli Gears, and they applied this vision to sound: drugs will help you get through the B-side's lone, nearly-16m track. The sequel would be more accessible, but this is the mindexpanding touchstone. KK

Sound Quality: 82%





BOZ SCAGGS

Silk Degrees

Pure Pleasure PPAN PC33920 180g vinyl

Scaggs broke out huge in 1976 with this model of jazz-rock balladry, just the sort of music that endeared Steely Dan (and the solos it begat) to baby boomers interested in displaying taste and maturity. Aided by two-fifths of Toto, Scaggs delivered a smooth, mellow and sexy set, like Sade with testosterone; 34 years on, it's as close as the boomers came to creating their own take on loungecore. That it sounds so sleek is what has endeared it to audiophiles as well: this is the latest in a perennial flow of reissues. An irresistible LP, helped in no small part by nine classy originals like 'Georgia', and a stunning cover of an Allan Toussaint masterpiece. KK

Sound Quality: 87%

OPHILE: DIGITAL















BUFFALO SPRINGFIELD

Again

Atco Japan WPCR-13278 SHM-CD Blu-Spec CD

Simply breathtaking: of the six CD versions I have of this, my all-time fave album and surely the Springfield's finest moment, SHM-CD proffers and then delivers the most coherent, grain-free and detailed playback yet. The stereo spread of what was considered achingly complex even back in 1967 is panoramic, each instrument clearly in its own space, yet part of the same landscape. The juggling of textures in 'Bluebird' - fuzz and acoustic guitars, banjo and more - while underscoring the most disparate harmonies in rock (Steve Stills' macho, Neil Young's freak falsetto, Richie Furay's clarity) is an act rare in the CD of any 42-year-old recording. KK

Sound Quality: 90%





CAROLE KING

Tapestry

Sony Music Japan EICP 20003 Blu-Spec CD

Based on a CD remastered from the original tapes and which added two bonus tracks, this Blu-Spec pressing of King's gentle 1971 classic confirms my experience with the Bob Dylan disc: there is discernible, added clarity, plus a smoothness to narrow the gap between CD and LP. Still not as rich as mint, original vinyl, but the bass loses some CD artifice, her piano sounds deliciously real and King's voice is clear and authentically in-the room. What would be interesting to hear, however, are Blu-Spec CDs taken from less-than-audiophile-grade original recordings; you might not find the subtle gains on this title worth the £20-£30 these discs cost as imports. KK

Sound Quality: 88%

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SPINAL TAP

This Is Spinal Tap — Up To 11 Edition

Studio Canal Optimum Home OPTBD1634 (with extras) Serves me right for rushing out to buy the inferior US edition: the greatest mockumentary of all-time is better-served by this UK Blu-ray, with more extras, interviews from current rock and comedy figures, like Ricky Gervais, attesting to their devotion to Nigel, David and Derek, and a stupidly low price. Add an interview with the Troggs' Reg Presley and, it is hoped, this should be the definitive and final purchase. Those of you with too much money might consider the five-disc edition with its working miniature Marshall guitar amplifier, and (possibly deliberate) fall-apart packaging, all for a nifty fifty guid. If you ever loved rock, you must see this. KK

Sound Quality: 111%

		2010						
0	~		*		-	2	140	100

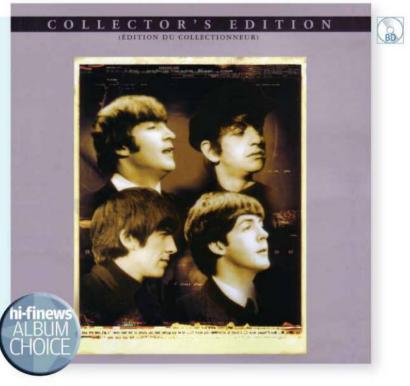
THE BEATLES A Hard Day's Night

Alliance/Miramax 110423 (with extras)

No-one saw this coming: a Canada-only release of the Beatles' cinematic masterpiece, issued utterly without fanfare the same month as the CD remasters and the Rock Band computer game. So what gives? Is it even kosher? Three attempts yielded no response from Miramax, which is odd: what we have here may be the best-ever edition. It duplicates all but the DVD-ROM bonuses of the stunning 2002 DVD, but the picture at 1080i (not 1080p) is clearer, and there's a choice of Dolby 5.1 or DTS-HD Master Audio 5.1. No, the musical portions do not sound as good as the remastered CD, but overall it's a total delight. Shown here is the box without the outer sleeve, which is identical to the 2002 DVD. Available at: amazon.ca. KK

Sound Quality: 88%









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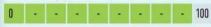
JUPITER ONE

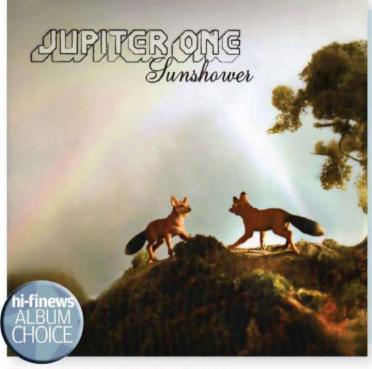
Sunshower

Rykodisc RCD 10982

There was something about the first track, 'Volcano', that made me keep listening, and I'm glad I did. I wasn't totally convinced, but it had so many ideas flying around, from twittering retro-electronics to reggae bass and Fall Out Boy melodic vocal lines, that it was clearly the work of an unusually imaginative band. The payoff came immediately after, with the surging, howling intro of breakneck rocker 'Lights Go Out', followed by the light and airy 'Flaming Arrow', the effervescently twitchy 'Made In A Day' and, er, everything else, right through to the McCartney-ish closer 'People In The Mountain'. Their songs are being picked up for computer games, ad campaigns and tv series: if you buy this CD, you'll know why. JB









THE POSTMARKS

Memoirs At The End Of The World

Unfiltered Unfo16

For those (like me) smitten with dreamy, breathless and wistful girlie-pop, The Postmarks' take on Françoise Hardy meets St Etienne meets Astrud Gilberto meets The Cardigans is hard to beat. The girl in question is Tim (yes, Tim) Yehezkely whose voice will bring out protective instincts in males of the species but may well cause women to want to shake her awake. The band, hailing from Pompano Beach, Florida, makes full use of her sublime vocal talents to hang some pretty inventive and avantgarde pop on, knowing that whatever they do will be sweetened and made much more accessible whenever she opens her mouth. This whole CD works a treat. JB

Sound Quality: 85%



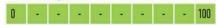


UB40 Labour Of Love IV

EMI Virgin CDV 3072

When Ali Campbell quit UB40 I thought it signalled the end of the band. Yet his absence is barely noticeable here. In Ali's place comes his brother Duncan who, although the voice isn't quite so emotionally-loaded, more than does justice to the material. As ever, the band combines easy-loping reggae with innovative flashes of dub and toasting to re-imagine genre classics like The Melodians' 'Get Along Without You Now' and Johnny Nash's 'Cream Puff', plus soul hits including Sam Cooke's 'Bring It On Home To Me' and Smokey Robinson's 'Tracks Of My Tears'. The real test will be how well they can write new songs without Ali but, for now... JB

Sound Quality: 95%





MARIA MULDAUR AND HER GARDEN OF JOY

Maria Muldaur And Her Garden Of Joy

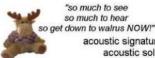
Stony Plain Records SPCD 1332

Nostalgia's bigger than ever. I say, if you must wallow in it, at least pick a rich seam of music that hasn't been tapped relentlessly by the multi-national record conglomerates. Saucy-voiced Maria Muldaur has been around since the mid-'60s when she fronted The Jim Kweskin Jug Band and now she's rounded up a bunch of similarly inclined chums including John Sebastian, Taj Mahal and Dan Hicks for a good-timey romp through some less known jug band gems. There's nothing new here but it'll brighten up any cold winter's day and maybe encourage you to explore this joyful music a little more. JB

Sound Quality: 85%

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0	-		-	-	-	-	-	-	100

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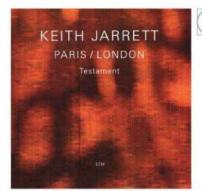














Testament: Paris/London ECM 270 9583 (three discs)

What once seemed an unrepeatable tour de force led on to one artist's inimitable genre. Jarrett's 1975 Köln Concert album became a multi-million seller, and his triumph as a unique solo artist eclipsed the impact of his excellent trio and quartet work. After a debilitating illness in the late 1990s, he returned to solo concertizing with a rather different approach. Keith Jarrett explains this, and the emotional background to the 2008 Paris and London concerts, in the characteristically lucid and articulate liner note filling ECM's misty-jade coloured booklet. If Jarrett's solo music is already part of your lifestyle, this new set will be a must-have. SH

Sound Quality: 90%





GRETCHEN PARLATO

In A Dream

ObligSound 0S107

Parlato's vocal talents won her the 2004 prestigious Thelonious Monk award, While studying on the Monk program she'd begun a fruitful musical relationship with quitarist Lionel Loueke, who'd be a key presence on her debut album Gretchen Parlato, as he is here. Loueke and Parlato can be their own rhythm section but we also hear Aaron Parks on keyboards, Derrick Hodge on bass and Kendrick Scott on drums. Songs from Stevie Wonder, Hancock, Shorter, Ellington, and the title tune by Robert Glasper, somehow all get swept up into one dream theme. Parlato's breathy bedside manner (if enticing) sometimes obscures her great technique and rhythmic vitality. SH

Sound Quality: 85%



STAN TRACEY

Senior Moment

ReSteamed RSJ108

At 80-plus, Tracey could be allowed a senior moment or two, but you don't hear the kind of lapse depicted on the cover. Quite the reverse, in fact, as on this April 2008 recording the tightly-knit quartet whistles through half-a-dozen earlier Tracey compositions with freshness and vigour. Newly-recruited saxophonist Simon Allen is exhilarating on the fast 'Duffy's Circus', Rollins-like on a calypso-tinged 'Triple Celebration', suitably angular on Tracey's more Monkish tunes. After all this, he characterises sensitively in 'The Grandad Suite', four newer Tracey pieces each inspired by a grandchild. The album is dedicated to the pianist's late wife. SH

Sound Quality: 85%

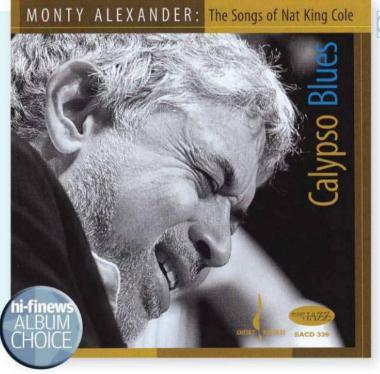
MONTY ALEXANDER

Calypso Blues: The Songs Of Nat King Cole

Chesky SACD 339

On top form, Alexander offers a more-thaneffective follow up to his 2008 album of Tony Bennett songs, The Good Life. Bassist Lorin Cohen and drummer George Fludas again give full-bodied support, never more so than when the pianist blows his melodica on the two bursts of 'Calypso Blues' that top and tail the set. The SACD sound is excellent, though it would have been nice to have the piano in the centre, and the multichannel option gives you more of Chesky's church acoustic. Above all, this is an audiophile recording that captures a real working group, rather than one tentatively assembled just for a record date. Alexander cuts loose in a wonderfully celebratory way, just as he does on stage, and it's great. SH

Sound Quality: 90%





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Symphony 1, Haydn Variations etc Budapest Festival Orchestra/Ivan Fischer

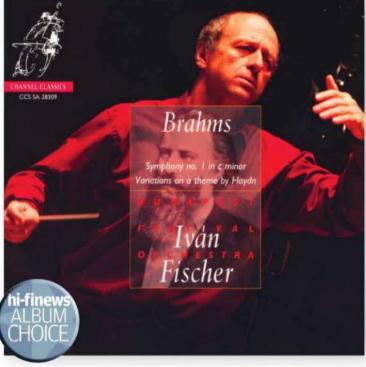
Channel Classics CCS SA 28309





Sound Quality: 85%

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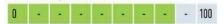
BEETHOVEN/BRITTEN

Violin Concertos

Janine Jensen, Deutsche CO Bremen/LSO/Paavo Järvi Decca 478 1530

The Beethoven has been rethought in terms of 'period' sonority and clarity, the solo part that of 'one amongst equals' (indeed, Jansen is somewhat underbalanced). So in the Larghetto we have lyricism rather than 'soulfulness' à la Menuhin, Jansen mostly responding unassertively to the orchestral writing. The textures make this a very attractive option, even though the coupling exposes the sheer hollowness of Britten's Concerto written abroad in 1940 - pace Ms Jansen, who adores it! Still there's plenty for both violinist and orchestra to do and the LSO serves brilliantly to replace Decca's composer-conducted 1971 version. CB

Sound Quality: 80%



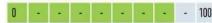


CHOPIN Waltzes 1-20

Ingrid Fliter EMI 6 98351 2

This Argentinian pianist, now 36, declared her Chopin credentials in a 2007 mixed recital, her EMI debut [5 14899 2]. Again from Potton Hall, but in superior sound, we now have 20 Waltzes (a few are only attributions), and a chance to compare the three Op.64 from that earlier disc: there are subtle but distinct changes in interpretation. The repeated notes of the opening E flat, Op.18, have a bold fluency - Ingrid Fliter certainly makes you sit up and listen but perhaps, at times, her capriciousness seems excessive. But then one thinks of the deadly Zimerman/DG and ponderous Arrau/Philips sets... CB

Sound Quality: 75%





SATIE

Piano works Katia and Marielle Labèque

KML 1120 CD

The Labèques have divided up the solo pieces according to temperament: Marielle 'clear-sighted', as in her forthright Sports et Divertissements; Katia 'the dreamer' has six Gnossiennes and - a commentary on Chopin's Funeral march - Embryons Desséchés. The two come together on their Steinway D in the Morceaux en forme de Poire and the later Pièces montées, where there are even brighter sparks flying. The piano sound is good although balances are not wholly consistent. 'Jeux de Gargantua' has one detuned chord and, unaccountably, 'Angling' has soft bird-song in the background! CB

Sound Quality: 85%

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LCD & PLASMA SCREENS



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ing the remarkable Servo Evolution CD players, Cyrus has introduced a range of amplifiers fe uitry developed for its DAC XP.The **8 XP d** and **Pre** XP d include digital inputs - ideal for playing mus stored on your computer - while the entry model, 6 XP, is based on the 8 XP but without the digital option. All also include two-zone multiroom capability







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SEVENOASS



HI-FI @ HOME

Unusually, this month's reader system almost exclusively comprises restored classic items produced by the Danish manufacturer Bang & Olufsen. Mark first became intrigued by the stylish B&O when his dad had one of its radiograms. Now he's a completist. **Steve Harris** has the story...

> hink 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.

When we featured Mark's hi-fi back in May 2004, he was using a tube-based system 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 solidstate B&O system. This was a fullyrestored Beomaster 5000 tuner.

A DANISH CONTACT

'Well,' says Mark, 'the Scott tuner I already had was a lovely item but the problem was that with any tube tuner, however good it is, you've got to have a good signal. So I thought it would be interesting to run a

vintage solid-state tuner through valve amplification. Maybe this could be the best of both worlds.

'In about late 2003 I was doing a search on the internet and I found Frede Kristensen of Denmark [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 at the end of 2003. In February 2004, a wooden crate turned up at my office, a very solid thing made like a tea-chest. I got it home and had to get a screwdriver to open 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 - I knew about the B&O radiogram because my dad had one. B&O had always tended to stand out for me, not just because

of the quality, but it was also very

interesting equipment. So I arranged to visit Frede.

'Early one morning, in April 2005, I found myself at Heathrow on my way to Copenhagen. I was very excited, it was like being a schoolkid again, really! I got to Copenhagen, walked across the international section of the airport to the domestic, and got on a little turboprop aircraft that took me to a semi-military airfield in the north of Jutland called Karup. Frede kindly picked me up and drove me to Struer, about a 40 minute drive. It was fascinating for me, with Bang and Olufsen having an almost mythical aspect, to be standing outside the factory!

'Then we got on a little ferry and went over to the island where he lives. He has built an extension to



RIGHT: Mark's collection of B&O memorabilia the original literature for the groundbreaking Beolab 5000 system, launched in



'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 great'

his house - a special unit where he listens to the equipment, services it and prepares it all.

'He 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!

'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.'

THE 5000 SYSTEM

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.

'The design of the system started in 1966 and it went to market 3

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

INSET: Mark shows off his classic Beolit 1000 portable FM radio

HI-FI @ HOME

really quickly, in April 1967. The whole range won loads of awards, winning the design prize at the Hanover fair.

'In Continental Europe, the Beogram 3000 was a partnership between B&O and Thorens, making use of the Thorens TD124 Mk II chassis but with a B&O arm and cartridge designed by Erik Rorbaek Madsen. But there was an anomaly in the UK. Because of existing trade agreements, the Beogram 3000 sold in the UK 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, 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 my visit to Frede in April 2005, which had been a wonderful experience, I said to him "Right, I need to

hand luggage!

place an order for the amplifier". In June 2006, 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

the amplifier into my Samsonite wheely flight case'

> 'The only way I was going to do this was to go to Denmark and pick the stuff up. Frede would have arranged to ship it all, but to be honest I wanted to have the ferry, and went in November 2007.

'I managed to fit

much to the joy of my partner! 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 the Cubes.

was rated at 60W, which of course

was more than enough. I lived with

this strange hybrid sort of system

that I had created... And that was

changes at home. We decided

Now, at last, Mark had a

'So I found myself up in the loft,

to build a loft extension.'

dedicated listening room.

LOFTY ASPIRATIONS

the status quo until we made some

experience as well. I booked the car

ABOVE: Connected to the Beolab via a special DIN lead is the Sony SCD-555ES CD/SACD player. Inactive but still cherished are a Leak Stereo 20 amplifier, **Thorens TD124** turntable with Ortofon AS212 and SPU, EAR 834P phono stage and **Audio Synthesis** passive preamp, Leak and Scott tube tuners

It was pretty rough, and we were delayed, but we got in. And it was a great feeling of exhilaration when I arrived. I just checked my directions and made my way up the western spine of Denmark, I arrived in Struer at about seven in the evening, and got on the little ferry. It was strange pulling up there in my own car.

'I spent a very pleasant few days there, and we went to visit some friends like Gert Damsgaard Jakobsen, the Ortofon collector. All very interesting!

'The fun part, of course was getting all the stuff in the car. We carefully wrapped everything in Bubble Wrap. Fortunately, although I've only a got a two-door car, it does have a very long and deep boot. So we got the main components in there and then got the speakers on the back seat.

'And I very, very gingerly drove back all the way from the top of Denmark down to Esbjerg. Fortunately, on the crossing back the sea was like a millpond. I got back on glorious autumnal day. Took me hours to get it all in the house. And then of course, like any enthusiast, I spent ages just tinkering and getting it all the way I wanted it.

LEFT: The top-of-therange Beolab 5000 amp and Beomaster 5000 tuner were the first models to feature B&O's elegant 'sliderule' controls



'I think 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 about got away with it, despite shoehorning the system in. And it's very nice to be up here as the sun is going down, watching flocks of birds going by and the night sky coming on, with a nice glass of wine.

'It's like anything that you saw when you were younger, like a kid





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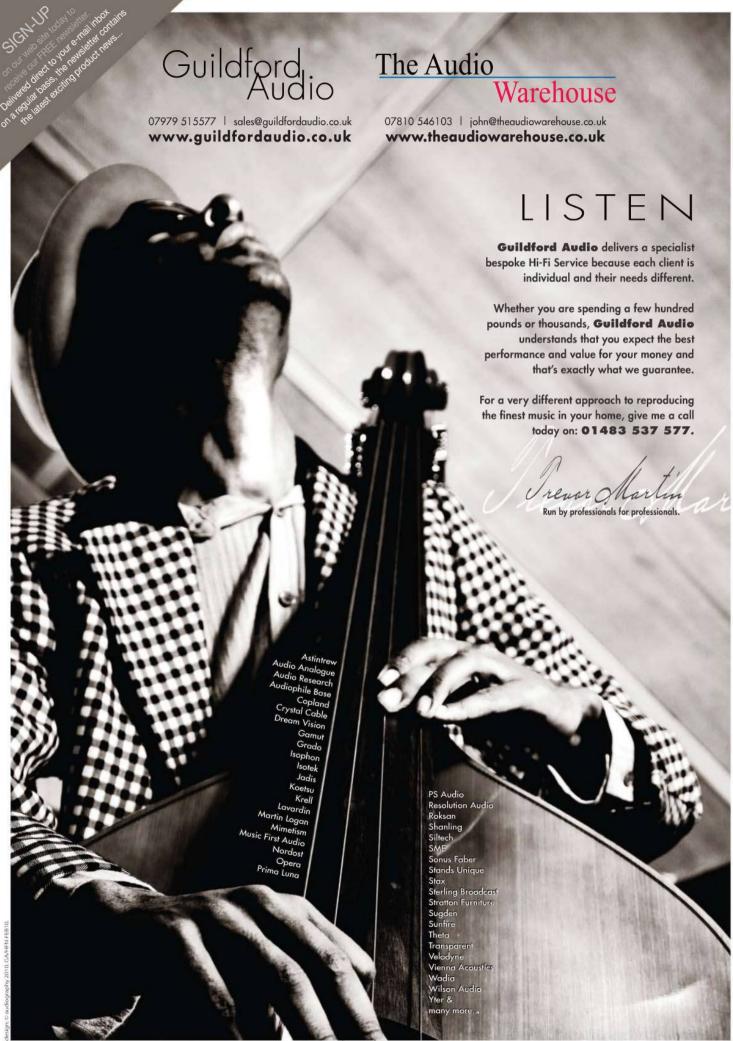


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HI-FI @ HOME



'There is an

analogue warmth

to the sound, but

precision too'

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, it's a Triumph GT6! And when you get to the time of life where you could afford it, that particular thing is no longer current.

'And I think Frede is unique in terms of the end-to-end complete system approach. He can also procure for you a complete system based around a Beogram 1000,

with the excellent Beomaster 1000 receiver. There are many good engineers who will do service and resurrection if you like of vintage hi-fi, but whereas

some individuals will focus on making it work again - within spec, fit for purpose, safe to use - Frede has gone to the next stage, in terms of doing the cosmetic side as well. He's now even found a company that will completely restore fascias, skimming the metal surface and reprinting the original legends.

'I think the closest comparison in the UK would be the work of Martin Bastin and Terry O'Sullivan of Loricraft. Or maybe some of the enthusiasts that are mentioned in Joachim Bung's book Swiss Precision. who restore TD124s.'

A REEL PLEASURE

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 spec'd for a home machine, and the designation was "semiprofessional". Most importantly, it

uses really nice quality Bogen heads. And the Beomic ribbon microphones were perfect partners.'

You won't be surprised to learn that Mark has a beautiful Beomic BM5 mic complete with its velvet-lined wooden box. 'My intention, and I'm doing it more and more often, 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, 71/2 ips, you get a really nice quality. It's just great to have that as part of the system.

'And I was very fortunate, as Frede

found me a very "low mileage" example. He did have to do some restoration, but from we can see. it was a machine that had been purchased and then barely used. It was in such good condition.'

DIGITAL, TOO

Naturally, the system will handle modern digital sources too, with Mark's Sony SCD-555ES CD/SACD

player connected, 'I found a very home users

LEFT: The late 1960s Beogram 3000 combines a Thorens TD124 Mk II motor unit with B&O's own arm and cartridge

TOP RIGHT: The highquality Beomic **BM5** ribbon microphone

RIGHT. B&O's omni directional Beovox 2500 Cube multi-tweeter satellite could also be mounted on walls or ceiling

BELOW: The Beocord 1800 open-reel tape deck gives excellent recordings; it was designed for 'semiprofessional' use, despite being sold to





helpful gentleman on the web at Flashback Sales, who makes cables and DIN connections, not just for B&O but for Naim, Quad and what-have-you. I've gone back to using a lot of the DIN connections, which also means that 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, because 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.

'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 sound. 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?' ()



Paul Miller

Technician and writer on all things audio for over 25 years, Paul Miller took over the editor's chair in 2006. He invented the QC Suite, used across the audio industr

When CD ruled the world...

There's a tendency to believe that sequential advances in audio technology, especially digital audio technology, must represent change for the better. But is this always so asks **Paul Miller**

oday's designers can certainly learn a thing or two from the standout hi-fi products of past eras. But could these standard-bearers of yesteryear actually do a better job of making music than the best buys of 2010? That was the gist of Ken Kessler's *Off the Leash...* column last month and he makes a valid point. However the idea that next year's model is not necessarily a *better* model does not stop with valve amplifiers.

There's also a groundswell of opinion that CD hardware hit something of a peak in the early 1990s. This was an era when separate transport/DAC combinations were *de rigueur* and the DAC topologies themselves were evolving from standard 16 or 18-bit ladder types to PDM (Pulse Density Modulation) and PWM (Pulse Width Modulation) technologies.

MULTI-BIT

Some enthusiasts still swear by the punchy sound quality of 20-year-old players using dynamic, ladder-type DACs (including Philips' venerable TDA1541A and the Burr-Brown PCM64P). These so-called 'multi-bit' DACs dominated all CD player designs for the first five or six years of the format's life. Arguably, the pinnacle of multi-bit architecture was achieved in US company UltraAnalog's hybridisation of Burr-Brown's 20-bit PCM63P DACs. These powered the extreme high end of CD players and

outboard DAC products. However, no chip outsold Philips' 16-bit TDA1541 which beat at the heart of entire generations of vintage Marantz CD-65/75 series players and luxury models like the CD12 two-box solution, all still sought after to this day.

BITSTREAM

The early '90s also saw the influx of high speed, bitstream-style DACs that, in Philips' PDM application at least, used a single bit that was switched rapidly on or off to

represent the audio as a pulse train of varying signal 'density'.

Philips' SAA7320 was the first PDM DAC chip and used in products by Sony, Philips, Rotel and Deltec, rapidly followed by the

SAA7321 and superior-sounding SAA7323. But this IC was short-lived, replaced by Philips' two-part DAC7 chipset and single-chip SAA7350 solution. The latter was widely used but rarely achieved the sweet and mellow sound of the SAA7323, honed to masterful effect by Rotel in its 1991 RCD-965BX [see below].

As an aside, it's somewhat anachronistic that years before SACD was even a glint in Sony's corporate eye, Philips' topend DAC7 chipset was almost purposebuilt for handling DSD data in its native form. It's a pity that the DAC7 silicon was mothballed years before SACD was

launched. Meanwhile, the intervening period has seen true 1-bit and multi-bit DAC technologies morph into the hybrid converters used today, combining high speed PWM (Pulse Width Modulation) with a 4 or 5-bit DAC.

BLAME IT ON DVD

'Vintage CD-65 and

75-series players

from Marantz are

sought after today'

Whatever their architecture, the DAC solutions of the early '90s were fundamentally 'CD-centric', their internal math based around a 44.1kHz clock.

DVD changed all that as both disc transport mechanisms, decoders and DACs were reconfigured to handle digital media at 48kHz, 96kHz and 192kHz.

Technology was driven by economy of scale and the chipsets available to purist CD manufacturers slowly became dominated by 'DVD-centric' solutions through the mid-to-late '90s.

THE NUMBERS GAME

Modern CD players are more complex, some would say unnecessarily so, than their pre-DVD forefathers. Not now the simple expedient of 4x oversampling to 174.6kHz. Now we have asymmetric upsampling of CD's 44.1kHz data rate to 96kHz or 192kHz – a mathematical fudge at best. No wonder many enthusiasts look back fondly to a time when elegant CD players were built with genuinely sympathetic silicon.

If there's a silver lining then it comes in the form of the very latest upsamplers that suppress the unnatural pre-ringing that has blighted every conventional digital filter to date. Ironically, the available processing power is now so abundant that the next generation of CD players may very well witness a genuine step forward in sound. \bigcirc



ABOVE: Classic silver disc spinners – the original CD 65 budget 16-bit blockbuster from Marantz and, later, Rotel's iconic one-bit RCD-965BX, both audiophile favourites from two decades ago



Technology journalist

Refresh your ears

How can you judge a system on how accurately it reproduces sound if you don't get out and hear real instruments played live without amplification? **Barry Fox** has some suggestions...

he London Evening Standard recently recommended a '£1400 must-have amp'. 'The clincher.' read the review, 'is incredibly clear, precise sound across every genre of music.'

Such meaningless talk of 'precise sound' reminds me of the old argument of whether an audio system should be accurate or realistic?

Realism means nothing when so many music performances exist only as close-miked, multi-tracked, over-dubbed, spaghetti-spliced recordings. To be accurate, there must be a benchmark for comparison. I am continually on the lookout for chances to keep my ears in training by listening to live music played at close quarters with little or no amplification used.

A GOOD BET...

Music or cabaret played in small, wood-panelled rooms in historical houses is always a good bet because there is usually a well-tuned grand piano and no need for any amplification. Try Burgh House in Hampstead and Lauderdale House in Highgate. Meanwhile, there are often free small group concerts at commuter hour in the foyer of the National Theatre on the South Bank, with a fine grand and usually only a vocal microphone.

Beware of churches. The floor is always flat, with no raised stage. So only the front few rows get a view and direct sound, and they are usually taken by the church wardens' friends. Most of what everyone else hears comes late after rattling off stone walls, domed ceiling and stained glass windows. If there is a balcony, as for instance in Wren's lovely St James in Piccadilly where there are often concerts, the sight and sound lines will usually be absurdly obstructed.

My most unhappy musical memory was paying to hear the wonderful Willard White in a North London church



ABOVE: A recent Big Band Brunch at Salisbury Arts Centre - see www.salisburyartscentre.co.uk

'Hampstead's New

End Theatre is far

better for sound: it

used to be a morque'

and never deciphering a word of the lyrics. Equally awful was a narrated concert of Erich Korngold music in another Wren church, St Clement Danes in the Strand. No attempt had been made to raise the players even slightly above floor level. The music was a mush and I wished I'd spent my money on a CD.

I have high hopes for Pinner Parish Church where respected music writer Peter

Vacher is now staging concerts with the audience around the musicians, and - he assures me - next to no amplification.

Small theatres can be good, but some. like the Gatehouse at Highgate, use

radio mics on the singers. You are hearing electronics rather than the natural voice.

The New End Theatre in Hampstead is far better. The building is very steeply raked because it used to be a morque where students would watch doctors lecture while cutting up corpses. So the view is perfect, the acoustic is good and there is seldom a mic to be seen or heard.

The small barn behind the Merlins Cave pub in Chalfont offers a rare opportunity to

hear live saxophone guests on a Sunday lunchtime, unblemished by electronics.

The best way to hear the real sound of a big band is to find a rehearsal band. The Syd Lawrence Orchestra started off as a rehearsal band, with TV and radio session players playing for pleasure in a pub near Manchester, Most rehearsal bands will have several good players and a fair load of learner passengers. But then

> it's the instruments you have gone to hear, not musical pyrotechnics.

BAND BRUNCH

Visiting Salisbury recently I chanced on a Big Band Brunch at the Arts

Centre, which used to be a church. The installed sound system is poor, but I have a ploy for places like this. I loiter at the front, to the side of stage. The view is restricted but it's out of the line of fire from the front-facing speakers.

The balance will be all wrong, but the sound is the real live sound of a wide variety of instruments. You don't get that chance very often and it never fails to refresh the ears. ()



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Steve Harris

Contributing Editor

'Sticking it on vinyl

changes the sound,

and people find it

easier to listen to'

Steve Harris edited Hi-Fi News between 1986 and 2005. He loves jazz, blues music,

Vinyl: starting from scratch

So, you've been bitten by the vinyl bug, but not everyone has crates of cherished vinyl ready for resurrection atop the platter of a new deck. **Steve Harris** looks at the booming re-issue market

uitar legend Jimmy Page was spotted recently at a London record fair, though he had to cut short his vinyl browsing when faced with a queue of dealers wanting him to enhance their original Led Zep albums with his signature.

Page has long been reputed to be one of rock's great vinyl collectors. But there is a new generation of high-end turntable owners who don't have a legacy vinyl collection at all. They are starting from zero. Rather than scratching around record fairs and fleamarkets, they look to the booming vinyl re-issue market to provide their garden of analogue delights.

BETTER FOR WORSE?

Now, I have to say I can't completely swallow the 'euphonic colorations' argument, which

says that vinyl is only ever better than CD, subjectively, because it is actually worse. There are good and bad CDs, after all. Yet that argument is unanswerable when

you relate it, as PM did in his column last month, to 'audiophile reissues' where the 'master' was a CD.

Over the last two years I've talked to many people about this, I've been able to play them a comparison between a lavish audiophile vinyl issue and the CD from which it had been cut. They all preferred the vinyl. This didn't surprise me, because although I'd started out thinking the differences were unimportant, I'd ended up preferring the vinvl versions too.

What I did find surprising was that, when told they'd only been listening to a dub from a CD, these listeners did not care. They did not feel cheated. They just liked the sound, so it was OK.

Much as I treasure my records, I don't want to buy new vinyl if, as I concluded in a May 2008 column, it 'becomes just a more difficult and expensive way of recreating exactly what is on a CD.' And I remain curious about the general reaction, or rather lack of reaction, to what PM succinctly called 'The Vinyl Compact Disc'.

So I talked to someone who knows more about the audiophile vinyl market than almost anyone, Vernon Hamblin at Unilet Sound & Vision, 'Unilet will always be my first port of call!', says reader Jeremy, who bought a lot of the equipment featured in December's 'Hi-Fi@Home' at the New Malden store. Thanks to Vernon's enthusiasm, vinyl records are now an important extra attraction there.

'We've had the 60th anniversary of vinyl and even the principal record companies have jumped on that bandwagon,' says

Vernon. 'And we've got more vinyl reissuing companies than we had even five years ago.

'The slightly frustrating thing is that it tends to be same titles over and over again. Last

year we had three issues of Steely Dan's Aja, all from separate re-issue companies, all claiming that they had access to the original analogue sources.

'Now, I'm not convinced that a lot of the re-issuers have access to the original analogue sources as much as they claim they do. But when I say discs are cut from digital I mean high bit-rate computer files.

'Which I don't have a problem with, because it would surprise me enormously if the record companies were continually saying, "Yes, of course you can have the original master tape!"

'But the fact remains that sticking it on vinyl changes the sound, and people seem to be more receptive to that sound. They find it, generally, much easier to listen to.



ABOVE: Unilet's Vernon Hamblin - 'we've more re-issue companies than five years ago'

'For myself, if ever I find a CD that sounds really spectacular, has all the texturing and everything we've come to love about vinyl, it's... Wow! Somebody has really taken a lot of care and attention making it.'

GREAT BIG BOX

Vernon continues: 'Vinyl is a very cool thing to have and collect at the moment. And it is very heartening that new stuff is coming out. Like the new Mark Knopfler album. You can have this as a double 180 gram vinyl, or as a box set. Then you get the double 180 gram, another record of all the bits and bobs that he decided not to put on the record, plus a CD, plus some other goodies and a book. A great big box, nearly a hundred quid.

'I've sold half a dozen of them. And two of them went to people who haven't got a bloody record player.

'Answer that one!'. O



ım Lesun Science iournalist

Disabled by design

Touchscreens, menus, 'interactive user experiences'... these days we are offered myriad ways to access components' functionality. But sometimes a simple knob would do. Jim Lesurf explains...

e tend to become resigned to the dollops of junk mail that plop onto our doormat daily. The 'survey' calls that 'are not trying to sell us anything' but always start by asking if we own our own home. I've tried the Telephone Preference Service, which claims to prevent unwanted calls from marketing companies. Cold callers clearly regard that as a joke. Just like the drivers of white vans who park on double yellow lines and block the pavement, they clearly think that the law doesn't apply to them. So it is hardly surprising that most of us simply learn to zap or ignore adverts and 'messages'. But every now and then one does grab the mind and stay in the memory.

The most vivid example was a poster I saw many years ago. This showed a person in a wheelchair at the top of a flight of steps leading down to a public loo. The exact words used escape me, but the image made the point crystal clear. The person wasn't disabled because they were in a wheelchair. They were disabled because someone had decided that everyone who might need a loo could walk down a flight of steps. Disabled by Design.

WHAT'S ON THE MENU?

In recent months I've been experimenting with using computers to listen to music. I've also been trying out an internet receiver that is clearly aimed at people who want a table radio. For me, the computer wins hands down as it is more flexible and powerful. I can bypass Barry Fox's struggles with Windows, which he has related in these pages in recent months, and have a computer that just gets on and does what I want. But I can understand why many users would prefer a box that behaves more like a traditional radio set. That said, I can (literally) see why both of these approaches can become a

real problem for some people.

Decades ago a radio had a row of knobs and buttons on the front, and a dial. Even with vour eves shut you could switch it on, tune in a station, and listen. Most electronic components were similar. A few knobs and buttons to adjust what each did. Now we have... menus and

submenus and all presented on a single display.

In the case of the internet radio I've been trying, the display is tiny and you have to find your way from one submenu

to another using just one combined knob/ button. You also often have to wait a while until the display tells you if what you just tried has worked or, in fact, failed.

Personally I find this as irritating as the Mac

and its one-button mouse. We're Apple; we keep things simple. A one-button mouse? Neat idea. Aye, that'll be alright...

So the bigger screen of a computer, plus a keyboard and mouse (with three buttons, thank you very much) seems much more convenient to me. But what if I couldn't see the screens at all?

These days we have 'user interfaces' or - heaven save us - 'interactive user experiences'. But not if you can't see.



ABOVE: A typical modern user interface, in this case from Pure's Wifi and DAB Sensia radio. A bright touchscreen and a remote promise ease of use

'Decades ago a

radio had a row of

knobs; you could

turn it on, eyes shut'

Disabled by Design. Yes, it saves the makers cash to just have one control button on the box. Or as with some devices like many FreeView set-top

boxes, no buttons at all. Remote controls can be a great idea. But not much use if you can't tell which button the box requires you to press next, or even if it is ready or not

for you to make some choice or other. So although many systems will work fine, others disable potential users.

I wish every designer and maker of consumer electronic equipment showed that they'd thought about these issues. Still, now I've mentioned it, maybe more will. But I'd be interested to know if others reading this have had experiences that made them realise that what they'd just bought (or nearly bought) was clearly not designed by someone who had them in mind. O

The colour's in the finish......





Not in the music





Journalist for top American audio-video publications

Good Stuff...

Talk about getting close to the music. This month Barry Willis dons a bright yellow T-shirt to work security at a fund raising event featuring the B-52's. Youth? It's a state of mind...

s a paying customer, I've been to innumerable rock concerts. In journalist mode I've logged time in mastering studios, done dressing room interviews, collected backstage passes, and enjoyed a catered dinner at the Grammy Awards. I'm familiar with the music business.

But until this past September, I'd never worked concert security. When asked to volunteer for an annual fund-raiser for our local school district. I couldn't say no - especially given that the headliners were the B-52's, the world's greatest party band.

OUT ON PATROL

With fellow volunteers, I showed up the morning of the show at Stafford Lake, 30 minutes by car from San Francisco, and received an official bright-yellow T-shirt, an all-access pass on a lanyard, and instructions to report belligerent drunks to sheriff's deputies. We patrolled slowly throughout a day of withering heat, while local performers rotated on two stages within earshot of each other. Watch out for the generically named but musically sophisticated Bob Hill Band.

Late in the afternoon we took positions in the no-man's land between the main stage and a wire fence a few feet away me beside a massive stack of JBL SRX-series woofers, devices that could double as weapons. Some in costume, fans of all ages filled the meadow for American Idol runnerup Brent Lewis, the opening act. Forearms festooned with green-and-blue tattoos,

Lewis delivered an hour-plus of highenergy song, dance, and banter, drawing shrieks of delight from swarms of adolescent girls.

The B's took to the stage at sunset: hyperkinetic, froggy-

voiced front man Fred Schneider; stolid, indispensable guitarist Keith Strickland; and all-singing/all-dancing kitsch goddesses Kate Pierson and Cindy Wilson, backed by a superb instrumental trio.

ROCKING HARD

Enduring proof that youth is a state of mind, the B's rocked hard and without a break for two solid hours, delivering

'The massive stack

of JBL SRX-series woofers could double as weapons'

hits new and old with verve and gusto: 'Pump', from their most recent album Funplex, and crowd-pleasing timeless favourites - 'Give Me Back My Man', 'Planet Claire', 'Lava', 'Roam', 'Rock Lobster', and of course, 'Love Shack'.

Near me three young girls, maybe nine years old, pressed against the fence and worshipfully sang along with every

> song. One, a blackhaired moon-faced little angel, sang not only all the leads but the backing vocals too. A lifelong enthusiast!

Before the last encore, I removed my lanyard and

draped it over her head, a gesture that had her mother miming 'thank you' with palms pressed together like a Buddhist nun. Then the drummer gave me an armload of drumsticks and asked me to pass them out. I gave two each to the grateful threesome before throwing the rest to the crowd.

FOREVER YOUNG

Hampered by one of the year's hottest days, and a similar event in a nearby town, Rock 'n' Blues by the Lake earned enough to cover expenses, but no hoped-for profit to shore up our sagging schools. Physical education, music, and arts programmes - the education establishment's 'expendables' - will doubtless suffer further cuts no matter how far into the stratosphere goes the Dow Jones Index.

But what the hell. Everyone had a really good time. In the backstage tent during the post-show feast, Kate Pierson took a marker pen and, in large loopy letters, wrote 'Love, Kate!' across my chest. The security T-shirt's ugly as sin, but such a treasure.

The B-52's will never grow up and neither will I. O



ABOVE: Kate Pierson, Cindy Wilson and Fred Schneider of the B-52's (left) on stage at the 7th annual Rock 'n' Blues by the Lake event; 'Can I help you, Sir?' - the author in full security garb

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UR VIEWS

Correspondents express their own opinions, not those of Hi-Fi News. We reserve the right to edit letters for publication Correspondents using e-mail are asked to give their full postal address (which won't be published). Letters seeking advice will be answered in print on our Sound Off pages, but due to time constraints we regret we're unable to answer questions on buying items of hi-fi or any other hi-fi queries by telephone, post or via e-mail.

THEY ALL DO IT, SIR WANT QUIET KIT? THEN MAKE SOME NOISE!

n your December 2009 issue Iim Lesurf asked: 'Whatever happened to silence?' What indeed! One year after installing a new freezer in my kitchen I disposed of it because of its infernal thrum. Recently the central heating boiler was replaced by a low-emission 'greener' model, but it is noisy! Why? Mr Lesurf is correct when he says 'They all do it, Sir'.

Paul Metson, Yorkshire

I read with interest the article by Jim Lesurf about unwelcome noise from audio equipment. I have a Rotel RA-06 amp which I like apart from noise from the mains transformer. In the article there is mention of Avel Lindberg transformers which, apparently, are silent in operation. How can I get a silent mains transformer, custom made if necessary?

Graham Hocknell, via e-mail

Jim Lesurf replies: My old-time favourite science fiction editor (John W Campbell of Analog) used to have a phrase: 'It is the slave who makes slavery possible.' It is a

brutally harsh view, but makes plain the gritty reality. While most people put up with home appliances, etc. that make noises then makers will go on selling noisy equipment.

The long-term solution is as simple as it is hard: object and make a fuss about it. The problem is, of course, having enough people do this, particularly when many makers are baffled by the idea that anyone would expect silent running.

Paul Miller replies: This noise is typically caused by vibration between the transformer's laminations, triggered by upper mains harmonics and/or other hash joy-riding on our household mains. Switching to another ring main, switching off sources of interference or using an external mains filter can all help. You may notice this noise is at its highest around teatime when everyone in the street switches on their cookers, TVs and kettles.

Rotel, incidentally, is unusual in winding its own transformers which are typically of very high quality, but I would not endorse any mod that could potentially expose our readers to lethal mains voltages.



ABOVE: Find full contact details for Avel Lindberg UK at www.avellindberg.com

Hung up on Nak

When it comes to hi-fi history, why is Ken Kessler continously hung up on a 1970s cassette deck. I refer of course to the Nakamachi 1000 [see HFN '09]. In my opinion, the inherent limitations of the compact cassette format itself (narrow width, slow 178ths tape speed, negligible tape quality from width to width - even on commercial releases) made it a poor excuse for an audio component.

Before people started listening to digital playback critically, the accessibility and portability that the CD format brought should've been meant as a replacement for cassettes and 8-track (which was still lingering on in the States until the early 1980s). However, none of these should ever have been considered in the same league as vinyl or reel-toreel tape in the first place.

Having said all that, here's two cassette decks for the aficionados out there! Besides the Nakamichi 1000, two other vintage decks worth mentioning are the top-loading Marantz 5420 from 1974 and the Akai GXC-50 from 1978.

Two brands that should be given their due in any discussion of retro hi-fi are Sansui and Ampex. Sansui gear was the most audiophile-dedicated out of all the Asian brands during the original solidstate era (1967-1980) and, for 40 years, Ampex was the American equivelant to Studer/Revox in tape recording equipment. Ampex invented the auto reverse concept for tape decks in 1964.

James Hoover, New Jersey USA

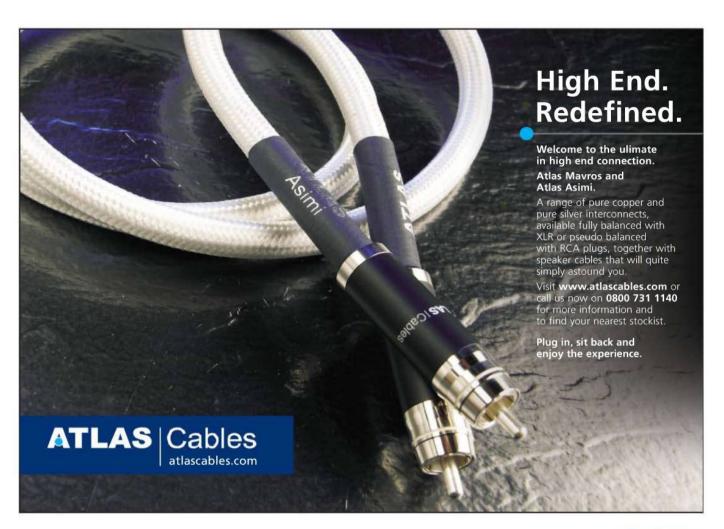


ABOVE: One for aficionados – Marantz 5420 from 1974

Ken Kessler replies: Hmmm... Seems like Mr Hoover is a new reader. Me? Hung up on a 1970s cassette deck? The Nakamichi coverage is based on its being a milestone product, which is indisputable. The Nakamichi 1000 and I do not own one - is regarded by everyone I know with expertise in cassette matters as the finest of the breed. And I concur.

At no point have I ever suggested that cassettes - even at their pinnacle - come anywhere near my preferred source, which happens to be... open-reel tape, especially the Revox G36 and the Crown 800.

Please, Mr Hoover: I spew forth enough verbiage without readers putting more words into my mouth.





Sound Off!

Snake oil? I believe!

EX-BROADCAST ENGINEER EXPLAINS WHY...

Enjoying more and more articles on both vinyl and tape in your recent issues has prompted me to recount a lesson well learnt. Early in my career as a broadcast engineer I was working as an assistant in a well established commercial radio station. There I had access to the station's entire record library. Thousands of 7in 45s and 12in LPs together with a growing collection of CDs, shelves of tapes and the finest machines and monitoring speakers to play them on. Audio heaven!

Also at my disposal were some of the strangest devices I'd seen tape tensioners, record cleaning machines and a huge degausser that could pull my specs off if I got too close. It was the latter that held my interest, having got used to its operation and the way the lights dimmed when running it. It had a mounting plate for Sonnefex loop cartridges (used for jingles, idents and commercials) and a locating peg for the tape reels. This peg also seemed ideal for LPs so one morning I tried the machine with one of my choice test albums - The Eagles' Hotel California.

After de-magnetizing, there was a clear and marked effect during playback. While the lower and upper frequency extremes seemed unaffected there was a clear boost to the lower midrange - a persistent hike in levels around 1.2kHz (you might even call it a ringing). This bizarre effect was pronounced and I feel it was a direct result of degaussing the 12in vinyl. Skeptics would probably put this down to the sharp clip around the ear I received from my boss for being so stupid, but me - I'm a believer. Snake oil - I'm all for it. If you're down to experimenting with accessories then you probably already have a fantastic system - enjoy it! Remember though: I already had a record library to die for before I started tweaking.

Mike Cofferon, via e-mail

......

HD Audio via HDMI?

HOW DO I ROUTE MULTICHANNEL AUDIO FROM BLU-RAY MEDIA THROUGH TO MY DENON AMP?

I've noted comments in past issues regarding Blu-ray players and the ability of some to use either the analogue inputs of an amplifier or to use HDMI inputs.

My amp is a Denon AVC-AllXV, which has HDMI 1.1. Would I be able to receive the HDMI 1.3a signal from the newer Dolby and DTS HD media without having to use the analogue inputs of the amp as I use these for the input of SACD from a Marantz DV 9500 player?

David Moon, New Zealand

Paul Miller replies: The HDMI 1.1 specification was established before the advent of Dolby TrueHD and DTS HD Master Audio bitstream formats. As a result any AV receivers or processors with HDMI vl.l inputs

will not recognise the streams. All is not lost, however, for provided your host BD player has a Dolby/DTS HD decoder on board then it's possible to route the unpacked digital audio over HDMI as multichannel LPCM at any resolution up to 24-bit/192kHz. Many BD releases carry an independent 5.1 channel LPCM audio option anyway. HDMI vl.1 will carry up to eight channels of LPCM which is instantly recognised by the downstream AV receiver/processor.

As a more general rule, readers might care to decode the HD audio within the player and connect via conventional analogue cables to the legacy amplifier. Jitter can still be debilitatingly high across HDMI, a blight that's avoided by keeping all digital processing under the BD player's roof.



ABOVE: Denon's AVC-A11XV - a fabulous THX Ultra 2-specified AV surround amplifier reviewed in HFN Oct '05. Its HDMI v1.1 connections support LPCM but not DSD or Dolby/DTS HD bitstreams

ROUND THE BENZ

READER'S CONCERNS OVER ARM AND CARTRIDGE RESONANCE

Thanks for interesting review of the Benz Micro LP-S [see HFN Aug '09]. I'm considering upgrading from my Benz Ebony L cartridge but I do have a question before I take the plunge.

Currently I have a JMW 10.5i tonearm from VPI. Since you mentioned in the lab report for the Benz LP-S that the ideal figure for resonance is 10Hz, what happens if the resonance figure is 7.6Hz? Will it prove a problem?

Victor, via e-mail

Paul Miller replies: Research has suggested that the lower limit for arm/cartridge resonance should be 10Hz up to around 15Hz. Any higher and you run the risk of an excessive bass through excitation from

sub-20Hz groove modulations while, any lower, and the resonance could be set off by record warps and ripples.

Owners of sprung-subchassis turntables also need to ensure the arm/cartridge resonance does not overlap the resonance frequency of the deck's suspension. As a rule, sub-10Hz arm/cartridge resonances should be avoided if tracking performance is to be optimised.

Use a lower effective mass arm or a lower compliance cartridge.

See and hear over 148 brands with more booking all the time

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NEWS: The Show is known as THE place to see and hear all the latest products. Hereare just a few things that you can see in Bristol, keep checking the website as more news is being added on a weekly basis.

KEF - The radical new Concept Blade is making its UK debut.

PMC - the fact8 floorstander making its Show debut.

REGA - the first outing for the Isis and Osiris reference CD player and amplifier. Also, bring along your Rega turntable and get it serviced by Rega's trained staff, visit the website to book your turntable in! **GREAT DEALS** and special offers only available at the Show. **WIN** superb prizes in our Show Competition!

GETTING TO THE SHOW

BY TRAIN: Temple Meads Station is a short distance from the Marriott.

BY CAR: From the M4 take J19 (M32 - Bristol). Follow signs for City Centre and RAC signs to the Show. For those using satellite navigation systems the hotel post code is BS1 3AD.

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The Cabot Circus Car Park has over 2500 spaces. It is easily accessible from the end of the M32 off Newfoundland Street.

ADMISSION

Adults £8.00; Students and Senior Citizens £4.00; Accompanied children under 16 free.



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iChoose quality?

Are widely accepted music formats undermining the quality of the music we listen to on a daily basis?

The Music Chain

Much is written about music and the musicians who entertain us, and we rightly exalt great musicians. But there is an interlinked chain of participants, two of which are I believe are crucial to our music scene in today's world. For centuries the music chain was a very short one – composers or songwriters, musicians and listeners, and the judgement on quality was immediate. Recording technologies have changed all this exponentially.

Today, we listen to most of our music from a recording and this gives recording engineers the opportunity to avoid poor acoustics, duff notes and off days. This, of course, means the chain has grown to include the recording engineers, the music distribution system (retailers or downloads), hi-fi manufacturers, hi-fi sellers and the hi-fi purchasers, the latter being the listeners. I should start by saying that hi-fi has become an adulterated term that no longer has its original meaning because it's applied to much equipment that certainly should not be termed high-fidelity.

It's said that a chain is only as strong as its weakest link. However, I believe there are two particularly strong links that, if removed from the chain, would seriously damage the quality of recorded music. These are the audiophile, or hi-fi connoisseur, and the specialist hi-fi retailer, the latter in nearly all cases also being the former because it's their interest that has driven them into their particular business. These are the people who most appreciate how exciting and involving music can be and how it can deliver an emotional experience.

Hi-Fi Connoisseurs

So why is the hi-fi connoisseur so important to the music industry? By their nature, audiophiles are generally avid music lovers who enhance their enjoyment through listening to music at its very best quality level, which means playing great recordings through hi-end hi-fi to achieve the most outstanding results. Without the audiophile, the main driver for quality would probably be removed from the chain. Let's be honest, over recent years the majority of music listeners now settle for MP3 convenience and, therefore, mediocre sound quality. If the pendulum ever swings so far that all but a few listen to highly compressed formats such as MP3, music producers will not waste their resources on producing high quality recordings because it would be commercially unnecessary, even if their recording engineers wanted to achieve the best they could. After all, an MP3 or AAC file, the iTunes default format, downloaded at 128 kbps (the most popular download speed), is about one-eleventh the size of a full resolution CD track, 1411 kbps, so the quality is inevitably far inferior. Information is irretrievably lost and the full dynamic range is lacking. Using an iPod while jogging does not really raise a quality issue but playing low-resolution tracks through an iPod docking station that feeds into a decent hi-fi system, is a disaster area. It's rubbish quality made louder. Fortunately, there is still significant demand from audiophiles committed to sound quality to sustain the production of high quality recordings, but it would be a tragedy if there weren't. For example, most classical recordings downloaded as an MP3 or AAC file are a complete waste of time because there is so much information missing that they are reduced

Specialist Hi-Fi Retailers

lust as essential a link in the chain as the hi-fi connoisseur is the specialist hi-fi retailer and the two are rightly dependent on each other. Without the specialist retailer the hi-end hi-fi manufacturer would have to rely on the internet and hi-fi magazine reviewers to try and assess the relative merits of different brands for their potential customers - a notoriously unreliable decision making process. Specialist hi-fi retailers are constantly being offered new products for assessment and potential stocking and, as it is also their hobby as well as their livelihood, they are greatly interested in achieving the best performance and seeking out the most outstanding combinations. More than that though is their relationship with audiophiles for, if they are to stay in business, they must satisfy the most discerning customers in the industry. The reality is that audiophiles and specialist hi-fi retailers are essential to each other.

to just the essence of a tune.

LISTED BELOW IS OUR SELECTION OF THE BEST HI-FI DEALERS IN THE UK.

They have been selected because they are known to do an excellent job in guiding customers towards hi-fi that will give years of musical enjoyment and total satisfaction.

Future of Recorded Music

What are the future prospects of maintaining high quality music recordings? We must hope that audiophiles, or hi-fi connoisseurs, or perhaps most accurately described, music lovers, will continue to drive the demand for quality. But another important reason for hope within the mass-market is that there is no longer any over-riding reason for MP3 and AAC to have such a following. These formats were designed to overcome very slow download speeds pre-broadband and small, expensive memory capacity but the tradeoff has been quantity at the expense of quality. Download speeds and memory capacity are not significant factors for most people now and will be increasingly irrelevant with time. Full resolution, CD quality, downloads are already available and should become the norm as long as the general public can be made aware of the tremendous quality benefit. This has happened with HD TV so we know this awareness can grow rapidly. In the meantime, we must highly value hi-fi connoisseurs and specialist hi-fi retailers, of which the ones listed on this page represent the UK's finest. Specialist dealers know how to choose the products that combine as a superb system and how to get the best out of it by expert installation in the home. If there's a price premium over an internet purchase, it's probably a small one, but it's unquestionably worth the difference.





OUR TOP 20 UK HI-FI DEALERS

SOUTH

Ashford, Kent SOUNDCRAFT HI-FI 40 High Street.

01233 624441

RAYLEIGH HI-FI

216 Moulsham Street. 01245 265245

Colchester

RAYLEIGH HI-FI 33 Sir Isaac's Walk. 01206 577682

East Grinstead

AUDIO DESIGNS 26 High Street. 01342 328065

Cingston-upon· Chames

INFIDELITY 9 High Street, Hampton Wick. 020 8943 3530

Maidenhead

AUDIO VENUE 36 Queen Street. 01628 633995

Rayleigh, Essex

RAYLEIGH HI-FI 44a High Street. 01268 779762

Southend-on-Sea

RAYLEIGH HI-FI 132/4 London Road. 01702 435255

Southampton

PHASE 3 HI-FI 37 Bedford Place. 023 8022 8434

LONDON

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AUDIO VENUE 27 Bond Street. 020 8567 8703

NT

GRAHAMS HI-FI 190a New North Road. 020 7226 5500

W11

ORANGES & LEMONS 61/63 Webbs Road. 020 7924 2043

SOUTH WEST

Rath

AUDIENCE 14 Broad Street. 01225 333310

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HOLBURN HI-FI 441 Holburn Street. 01224 585713/572729

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LOUD & CLEAR Bonnington Mill, 72 Newhaven Road. 0131 555 3963

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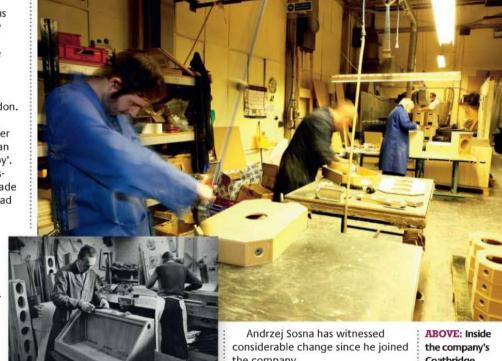
It's not often that a brand name becomes part of everyday speech. This Scottish based company has refined its products since the first Dual Concentric model appeared in the late 1940s. John Bamford brings you the whole story

o audio enthusiast is unaware of the famous loudspeaker company Tannoy - the name has crept into the language (like 'Hoover' for vacuum cleaner).

It dates back to 1926, with the formation of the Tulsemere Manufacturing Company in London. The Tannov brand name was trademarked by company founder Guy R Fountain in March 1932, an abbreviation from 'tantalum alloy'. Fountain had developed a mainspowered electrolytic rectifier made from an alloy of tantalum and lead for charging the accumulators widely used in early radio sets. Soon the company was making moving-coil loudspeakers using DC energised magnets, and by the late 1930s was producing microphones and amplifiers too.

During the war Tannoy supplied more than 600 communication systems to the RAF alone, with similar equipment requisitioned by the army and navy. Forces users would 'Tannoy' each other - thus Tannoy became synonymous with public address (PA), entering the Oxford English Dictionary by 1948.





COMPANY HISTORY

'Everybody working here is proud of the company's long heritage and feels part of something quite special,' enthuses managing director Andrzej Sosna, 'Our marque is so steeped in history that everybody uses our brand name colloquially. In some ways this is hugely advantageous but sometimes it can be frustrating too, when members of the general public think that we only make loudhailers and PA systems. We're not always appreciated for our cutting-edge developments in high fidelity speaker design.'

the company.

'The brand has survived several company changes during its history,' he explains. 'Guy Fountain retired in the mid-1970s, selling his company to the American group Harman International. It was at this time that we moved from West Norwood in South London to a seven acre site here at Coatbridge, on the outskirts of Glasgow, where it has remained ever since.

'In 1981 it went through a management buy-out and in 1987 merged with Goodmans, Tannov Goodmans International plc (TGI) became the largest loudspeaker design and manufacturing group in the UK, the group also including brands such as Mordaunt-Short, Epos and Martin Audio back in

Coatbridge factory

CENTRE: A

Chatsworth cabinet under construction in 1958. The multi aperture baffles on the left were for the VertiLinear PA speaker launched in 1957

FAR LEFT: Dr Paul Mills (left) and Tim Lount in the listening room with the recentlyintroduced DC10T floorstander



those days. Since 2002 we've been part of the Danish TC Group, TC merged with TGI but subsequently many of the brands - including Goodmans - were sold, leaving the group to focus on its key brands and endeavour to capitalise on its core technologies.'

TC Group manufacturing includes electronics for musicians including amplifiers, speakers and musical instrument pedals; it also makes hi-

tech semiconductors: and, importantly, it has a portfolio of intellectual property which includes a host of audio digital signal processing algorithms and digital amplifier technologies.

Recent developments have seen Tannoy's PA system business going from strength to strength in what is a highly competitive market. Its modular Q-Flex installation speakers, for example, use DSP to provide beam steering and shaping in order that sound intensity can be focused on specific areas within spaces in



large buildings like shopping malls and airport terminals.

THE DUAL CONCENTRIC

It was in the late 1940s that an engineer working with Fountain, Ronnie Hastings Rackham, developed Tannoy's first Dual Concentric (DC) driver with its high-frequency pressure unit firing through the centre of a large bass cone. It may not have been the

'Originals are

now prized

collectors'

items'

world's very first coaxial driver (America's Altec 604 'Duplex' speaker, operating on a similar principle, was introduced in 1944), nevertheless Tannov's DC driver

was reputed to sound uncommonly refined for its day and marked the entry of Tannoy into the prestigious high-fidelity sound reproduction market. The design principles laid down nearly seven decades ago are largely maintained to this day, with Tannoy's Dual Concentric driver continually refined over the years.

'It's believed that Decca bought the first six DC units for use as studio monitors,' says Tim Lount, Tannoy's vice-president of sales and marketing for residential systems. 'The company famously went on to produce a whole series of domestic models using variants of the original driver, many of them employing folded-horn cabinets designed to be sited in the corner of the listening room. There were many classic models such as Ascot, Buckingham, the GRF [Guy Fountain's initials], Lancaster, Windsor, and so on, and some are still in use. Originals are now prized collectors' items.'

Indeed, such is the love of these original designs that a few derivatives are still current and remain hugely popular world-wide.



'Today's Prestige models boast much improved materials and more refined drivers than the original designs of 50-something years ago. And while they can't boast the resolution and speed of our modern speaker designs they still sound utterly delightful,' continues Tim. 'Our skilled craftspeople are making beautiful cabinets in walnut, teak and mahogany that become cherished pieces of furniture in peoples' homes. Yes, they're labourintensive and expensive to make, but for many music lovers they are the last speakers they will ever buy.'

GOLD 'N' RED

Throughout the 1960s and 1970s Tannoy's Dual Concentric designs found favour in countless recording studios too, its Gold and Red professional monitors (named after the colour of the 12in and 15in DC drivers' baskets and end caps) becoming de riqueur for monitoring.

As high frequencies from the tweeter radiate from the centre of the low frequency driver through >>

ABOVE:

(Clockwise from top left) Margaret builds tweeters for a Q-Flex array while Kate assembles spiders for drivers and John - a veteran of 31 years at the factory - works on a piano lacquered cabinet

FAR LEFT: Racks of cones for Dual Concentric drivers. all made in-house

BELOW: Keep all watches and credit cards well away... a powerful Magtronics 700AT magnetiser



ON LOCATION

a carefully designed high frequency exponential horn, one of the areas in which they excel is imaging. The design makes for minimal smearing of the soundstage and the optimal listening distance can be anywhere from 7m away to as close as 0.5m.

TANNOY R&D

Today Tannoy's director of research and engineering is Dr Paul Mills, a quiet, unassuming enthusiast who is deeply passionate about his work and the quality of music reproduction his designs are capable of delivering.

'I studied for my PhD at Essex University's audio engineering department in the early 1980s where Malcolm Hawksford is a Professor, of course. Today it's called the School of Computer Science and Electronic Engineering. It wasn't easy to find a hi-fi manufacturer

in this country with adequate budgets to fund scientific research and so I ended up as a lecturer at Essex University in Colchester for a couple of years or so before opportunities presented themselves at Celestion and Tannoy.

'Going to Celestion would certainly have been convenient, as they were only up the road in East Anglia back in those days. But I was a great admirer of Tannoy's DC drivers and believed strongly in the benefits of a point source transducer, so I took the brave step of emigrating to Scotland. That was

some 23 years ago now, during



which time we have continuously refined our designs.

'By careful mechanical and crossover network design the virtual acoustic sources of the high and low frequency units can be made to occupy the same point on the axis.

The key to the controlled, symmetrical radiation pattern of our modern DC designs is the Tulip

> WaveGuide – named for its similarity in cross-section to the flower – which ensures that spherical wave fronts are created from the high frequency section to match

those from the low frequency driver. This gives optimum, natural dispersion and constant directivity so that no particular room modes are excited.

'Polar dispersion of sound is symmetrical in both horizontal and vertical planes so the loudspeaker is less critical of room boundary proximity and integrates well with real rooms. Off-axis listeners benefit from the lack of a stereo sweet-spot





TOP LEFT: All manner of cabinets in various stages of assembly;

ABOVE: Lindsay builds crossovers for Turnberry, the entry-level model in the Prestige Range, and (below) Andy sands a cabinet to perfection as well, along with a maintenance of the full midrange energy spectrum even when seated to one side of the listening room.'

SUPERTWEETER RATIONALE

With the emergence of wide bandwidth high-resolution digital recordings on DVD-A and SACD, Tannoy caused a stir in audiophile circles with the launch of its Dimension Series speakers in 2000. These luxurious bi-wireable models featured a fifth speaker terminal at the rear for grounding of the drivers' chassis, and a supertweeter to extend HF output to around 50kHz.

Explains Paul: 'When we heard the benefits of extending the response we designed standalone supertweeters that could be added to the majority of our models, including the Prestige Series. Music contains transient information and rich harmonics beyond the range of human hearing, some instruments producing low-level energy up (>>>)





'I was a great

admirer of

Tannoy's DC

drivers'

LEFT: The machine shop provides in-house tool-making and metal parts to be turned out for instant prototyping

RIGHT: ST200 supertweeter is in oiled American walnut to match Tannoy's Prestige Series models





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COMPANY TIMELINE

1927
Guy R Fountain
forms Tulsemere
Manufacturing Co

1932

Trademarks the brand name Tannoy

1939

Communications systems supplied to British armed forces

1947

Engineer R H Rackham develops the first Dual Concentric driver

1960s

Gold and Red Monitor models become much used in recording studios

1976
GRF sells
to Harman
International. The
factory moves
from London to

1987

near Glasgow

Following a management buyout in the 1980s, merges with Goodmans to form TGI plc

2000

Dimension Series heralds first 'WideBand' models sporting supertweeters

2002

Becomes part of the Danish-owned TC Group

2009

Introduction of Definition models

2010

Kingdom Royal to be launched to 100kHz. Even bass notes have leading edge transients reaching 30kHz. I know that traditional belief is that we can't possibly hear such sounds, however researchers monitoring brainwave activity on subjects exposed to wide bandwidth material have discovered that listeners do respond to the ultrasonic components in music that we supposedly can't hear.

'Extending the frequency response by two octaves also corrects time and phase response within the bandwidth of human hearing, adding realism to the soundstage by improving imaging and placement of instruments – which I believe explains why supertweeters improve the perceived fidelity of a playback system even with bandwidth-limited recordings on Red Book CD.'

CRYOGENIC TREATMENT

In Tannoy's listening room we enjoyed the immensely powerful 30Hz-35kHz bandwidth of the company's DC10T floorstander, at





ABOVE: The granddaddy of them all, the imposing Westminster Royal with 15in Dual Concentric driver in a 530litre cabinet. The weight of each cabinet is a cool 138kg

£5000 the top model in its latest Definition range. Thanks to its 10in DC driver twinned with an additional 10in bass driver we were immersed in a rich, fruity, organic bass coupled with tremendous speed and agility.

In its upmarket models, such as the Definition range, Tannoy has its entire crossovers cryogenically treated. The company believes this permanently reduces internal stresses in the microstructure of the crossover components, leading to better signal transfer and superior resolution of fine detail.

'Our passion is for hi-fi and we strive to perfect the performance of all our models whether it is an entry-level speaker or a luxurious flagship,' says Tim. 'I guess we're fortunate in many ways. The culture within the company is one of loyalty and longevity, the brand name is immensely powerful, and we've several strings to our bow. Despite the economic recession our business has remained stable, which

is good news as we're supporting a workforce of around 100 people here in our Coatbridge factory.

'Our professional division has enjoyed enormous success in recent times with our VQ range of PA speakers. With their remarkable 114dB sensitivity and capability of delivering SPLs approaching 140dB, only modestly-sized amplifiers are required to fill a very large building.

'In churches in the USA, in particular, where a discreet PA system is required, they have proved extremely popular. Meanwhile in the residential market our Prestige models continue to be hugely popular around the world, especially in Japan where they have gained something of a cult status. It's hard to comprehend given the typically small size of their homes, but the most of our huge Westminster Royals are sold in Japan!'

KEYS TO THE KINGDOM

Before we leave we are afforded a sneak preview of Dr Paul Mills' latest grand design, to be dubbed the Kingdom Royal. The size of a couple of small wardrobes and featuring a 12in DC driver augmented by a 15in woofer, this flagship will sport a new magnesium dome supertweeter operating from 16-48kHz.

'I'm still tweaking some aspects of the design,' says Paul. 'In our Dual Concentrics we typically cross over to the tweeter around 1.2kHz but I'm trying to bring it down as low as 650Hz. I've also been experimenting with cryogenically treated tweeter domes, by the way...'

The Kingdom Royal is likely to be appear at around the £40k mark. Tannoy is hoping it can show this new statement model at the Munich High End show in May. ©



TOP: George works on a prototype using the SolidWorks 3D CAD design program ABOVE: Tannoy's impressive on-site anechoic chamber

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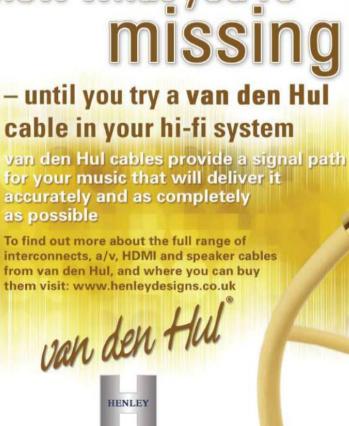
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50ASL Classic (left) & 100ASL Tower (right).



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www.henleydesigns.co.uk

Lowther Acousta loudspeakers

Size, sound, good value for money, Lowther's range of horn-loaded Acousta speakers were a boon for hi-fi buffs of the day. But how do they measure up in 2010? Review: John Howes & Ken Kessler Lab: Keith Howard

ooking back over the history of Lowther, horn loading of the drive units has been a mainstay of the company's designs from the very earliest days. In the post war years, with raw materials limited, it must have been difficult making larger speaker cabinets. So it was that the TP1 and Acousta models were introduced. Unveiled in the 1950s, the first Acousta models measured 34x18x17in (hwd) and were available in either vertical or horizontal mountings. The horizontal version came with 12in legs and is very rare to find nowadays.

In 1958 the Acousta cabinet was offered in DIY kit form for £14.14s.0d. If you wanted a factory built cabinet only, this would have cost you £18.18s.0d or £37.18s.0d complete with a PM6A drive unit. The Acousta plans could also be purchased separately for 2/6d (121/2p today). As a comparison, a Quad Electrostatic speaker cost £52.0s.0d while a Tannoy York fitted with a 12in dual concentric driver retailed at £66.0s.0d. The Acousta had several advantages over most of the competition at the time: moderate size, good value for money, a high quality sound and high efficiency. Partnered with a 3W or 4W valve amplifier it proved more than adequate for domestic listening. In the late 1950s, the cabinet depth was reduced by two inches to 15 inches by redesigning the bass horn, which enhanced the speaker's appearance.

STEREO FROM ONE CABINET

The Acousta Twin was introduced in 1959 alongside the standard Acousta, and measured 44in high by 18in square. To me this is one of Lowther's most interesting designs, uniquely providing stereophonic reproduction from a single cabinet. A 1961 sales brochure stated that 'the

Lowther Acousta Twin is the only design of its kind in the world. It is designed to reverse the accepted Blumlein principle for stereophonic recordings, namely, that when two microphones are placed at a central point and angled to collect sound from a given area. The sound pattern from the Lowther Acousta Twin will be of the same order, with the concentration of sound in the central area, giving the feeling of the original.'

The Lowther Corner Acousta enclosure soon joined the Acousta family of cabinets, measuring 32x18x91/2in (hdw). Designed to stand facing into a corner of the room, the mid and treble frequencies were reflected back into the room to give a very spacious sound. Meanwhile, the folded exponential bass horn exited at floor level on either side of the cabinet making the walls form the final flare of the horn.





ABOVE: Sales brochures for Auditorium Acousta from 1972 and a 1960s brochure showing the Standard Acousta and Corner Acousta RIGHT: Four Lowthers - Super Acousta, Corner

Acousta, Mini Acousta and Standard Acousta





In 1966 two new models emerged: the Mini Acousta and the PM7A drive unit. The size of the Mini Acousta was 27x15x13in (hwd). This speaker made a welcome addition to the standard Acousta, as it was far more domestically acceptable. The flux density of the PM7 was 19,650 gauss compared to the 17,500 gauss of the PM6 and was offered as an upgrade to all Acousta cabinets.

In the early 1970s the Super Acousta was launched, having two forward-facing drive units instead of one. This gave a wider image and a much improved bass response over the standard Acousta. Interestingly, this model is not listed in any of the Hi-Fi Yearbooks and I believe it was not a good seller due to its comparatively high cost.

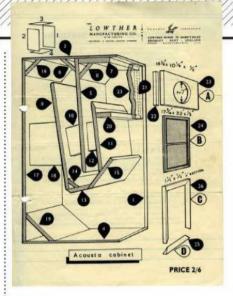
Another new model surfaced in 1972 called the Auditorium Acousta, which was based on the earlier Corner Acousta. This model utilised two drive units, one firing into the corner and one towards the listener. Cleverly this incorporated a volume control to adjust the balance between the drivers. This design benefits not

reflected sound stage but also better bass emerging from two drivers.

The Acousta 124, produced in 1981, was the last of the Acousta range made by Lowther. It was very similar to the Super Acousta and also had two forward firing drive units. Over the years birch plywood, chipboard, blockboard and other materials have been used in the cabinet construction. In my opinion the earlier birch plywood cabinets sound the best, although these are difficult to find.

ONE OF OUR BEST

The Acousta family of cabinets was produced by Lowther in many shapes and sizes for nearly 30 years, which if nothing else is proof of their popularity. In a 1967 edition of Hi-Fi News, Ralph West wrote an article on the Lowther PM6A drive unit and the standard Acousta cabinet, 'The overall balance is excellent,' he wrote, 'and does not suffer from the all too common shortage around 100-200 cycles, which



ABOVE: Cross-section of Acousta cabinet from original DIY plans; the price of the plans is 2/6d **ABOVE LEFT: Lowther letterhead from 1957**

makes cellos sound so thin. Extreme bass, below 50-60 cycles is slightly down but can be corrected by very slight use of the bass lift control. Only organ pedal tones would be affected anyway. Coloration is very small and continued listening fails to show up any undesirable features. Used intelligently, as described above, it is one of our best loudspeakers and it is no wonder its popularity has lasted so long.'

I have been privileged to listen to most of the different models and with many different combinations of Lowther drivers. They don't have a ruler flat response, yet they boast speed and dynamics that few other designs come even close to! When partnered with single-ended triode valve amplifiers the quality of sound can be truly hypnotic. For more information on Lowther and its speakers, see www. lowthervoigtmuseum.org.uk.

KEN KESSLER LISTENS...

Deflecting criticism before even commencing with the text in question may seem the action of a truly insecure individual, but I know how you lot think. Yes, I am on record as despising horns, but that requires clarification: my hatred for nasal, honking monstrosities is aimed at the atrocities which followed in the wake of single-ended triodes (SETs), during the past 25 years. Indeed, my esteemed colleague John Howes recommends SETs in the preceding paragraph, though 'hypnotic' can also apply to slimy bugs and pile-ups on the motorway.

In order to appreciate why, conversely, I have always adored Lowthers (and Klipsches) is to factor out what has been done with horns in the modern era. Which came first - the horn revival or the SET @







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VINTAGE HI-FI



revival - is somewhat hard to determine, a chicken-vs-egg scenario. Note, though, that horns were certainly exploited because they were the only speakers sensitive enough to work with low-power SETs, so SETS probably came first in the renaissance. My experience was that while horns were supportive of the SETs' low power, SETs in turn were so fat, rolled-off, overly lush and sickly euphonic that it was hoped they would compensate for the harsh, nasal, screech of modern horn. Or vice versa

Not so the Lowthers, which don't need soft amps to make them musical. Lowther benefitted from the SET revival because it never ceased trading. I recall falling in love, circa 1980, with a number of Lowthermade and Lowther-based speakers, like

the Bicor and other brands' small footprint models, long before SETs returned. In fact, they worked beautifully with the then-hot NAD 3020, which was never exactly a power house. And that included Acoustas.

'Even CDs enjoy a hint of sparkle rather than brittleness'



selection of driver types, the Acousta under examination is an ideal starting point. It's neither the smallest nor the largest, the simplest nor the most complex in the range, yet it possesses every virtue that keeps French and Japanese enthusiasts wedded to what are now seriously aged British driver designs.

Note that I said 'French and Japanese': the latter created the SET/horn revival, while the former brought it to Europe,

> via Jean Hiraga. This is not to suggest that the French and the Japanese have similar tastes in music, nor in the way they perceive sound. More likely is that they adore SETs and horns on a more spiritual,

intellectual or artistic level, much in the way that they both obsess over the way a shop wraps a purchase, or how a chef positions food on the plate. Their tastes have no bearing on how British audiophiles appreciate or perceive sound quality.

Which may be why Lowther currently ignores the UK: the UK market is hard work. But what the British are missing is a set of

ABOVE: Original brochures showing Lowther's range of enclosures and individual driver prices **ABOVE LEFT: Rear of early PM6A driver**

musical values that I can only liken to the excitement of hearing a properly-installed and matched Decca London cartridge. It is a marriage of contrasts that confounds and fascinates listeners in equal measure, though such confusion is recent: back in the 1950s and 1960s, no commentators that I can discover mentioned the seeming impossibility of a component able to excite and mesmerise in equal measure, the former being the creation of an almost larger-than-life spectacle, the latter meaning a naturalness that's almost calming in its authenticity.

REALITY REPLICATED

It's like this: positioned in front of a pair of Acoustas, you hear a massive, panoramic soundstage, as if the designer of the late, lamented Cinerama projection system laid out its dimensions. Image height, especially that of a recording in a large hall, is recreated with such life-like scale that it's almost independent of the room. Whether in my 12x18ft studio, or in the massive chamber that Magnavox, the French Lowther supporter, uses at the Paris hi-fi show, the stage seems to replicate reality. Within all of this audio real estate,

however, are precisely located instruments, which suggests point source/dual-concentric dispersion - nearly always the preferred method for imaging fanatics. Using Little Brother Montgomery's solo barrelhouse piano and rich voice, following the juggernaut impact of an orchestral soundtrack, reaffirmed @

IDEAL STARTING POINT

While the number of designs using Lowther drivers is as limitless as the imagination of the DIY-er building his own cabinet, and while Lowther is responsible for a large



ABOVE: A Lowther PM6A driver pictured in situ and (right) the driver itself; power handling was a claimed 20W and impedance 15ohms





VINTAGE HI-FI



'The two-driver

or larger models

may sound freer,

more open...'

my belief that the Acousta is the kindred spirit of the Decca cartridge in every way. The tinkle of the piano, that scintillating treble and the sound of the hammers being integral to barrelhouse, shimmers in so Decca-like a manner that even CDs enjoy a hint of sparkle rather than brittleness.

TEXTBOOK SOUNDS

Another characteristic of the Lowthers that warms my Deccalovin' heart is the slightly forward positioning of the main instruments which enhances the front-to-back depth. Using the

overhead view of the soundstage, as pioneered by Dave Wilson when he was a reviewer, the Lowther 'floorplan' almost precisely follows those textbook 'back of the LP sleeve' drawings of the layout of an orchestra, curved at the rear,

ABOVE: The dual-driver Super Acousta, built 1972 and tested in 2010 (see right) **BELOW: Standard Acousta with grille**

and pointy at the front, where the conductor would stand.

If there is any downside to the Acousta - and nearly every other Lowther I've savoured - it's the bass, which I can only describe as 'lumpy' and 'papery'. One hesitates to overemphasise this if, like me,

> you are not a bass obsessive. But I do respect that there are listeners fixated on the lower registers. For them, the two-driver or larger models may

sound freer, more open and more flowing. On balance, though, I've always preferred the Lowthers of the smaller Acoustas' dimensions, with a single driver. And as for PM4 vs PM6, 'A'-series vs 'C'-series, well, that's another tale. O

HI-FI NEWS VERDICT

For all of the myriad paths that one can follow Lowther-wise and believe me, Lowtherites will argue into the wee hours about such matters as magnet materials and panel thickness - I've yet to hear a Lowther-driver'd speaker that didn't possess in some measure the main reasons for buying into the genre: thrilling, involving, wildly dynamic sound. The Acousta is simply one of the safest bets... unless you're handy with a coping saw.

Sound Quality: 82%

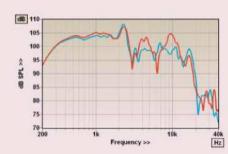
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LABREPORT

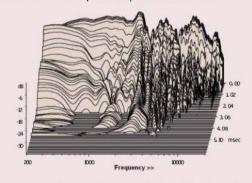
LOWTHER SUPER ACOUSTA

As you'd expect, the Super Acousta delivers very high sensitivity of around 102dB on pink noise. So an amplifier capable of delivering a peak output of only 13V - equivalent to 10.7W average into 8ohm - will be able to drive it to short-term peaks of over 115dB SPL, allowing unclipped replay of most music at realistic levels. Moreover, this exceptionally high sensitivity is bought without low impedance, despite the twin drivers being connected in parallel. Minimum modulus is a friendly 5.0ohm at 646Hz, while the minimum EPDR (equivalent peak dissipation resistance) is relatively high at 3.3ohm at 328Hz, making this an unusually easy speaker to drive. From this point on, though, the news becomes unremittingly bad.

To look at this speaker is to think 'no bass, no treble, only midrange - and coloured midrange at that', which is precisely how it measures. On-axis frequency response errors, 200Hz to 20kHz, are very high at ±11.2dB and ±9.3dB respectively, principally [see Graph 1, below] because of a marked shelving down of output above 2.5kHz. Pair matching - which is not too bad below 2.5kHz - also becomes erratic at high frequency, to the tune of a ±7.7dB error from 200Hz to 20kHz. Note too that low frequency output begins to roll-off very early, from 500Hz. In deference to the speakers' age, no attempt was made to measure distortion at 100Hz; it is certain to be high because of the motor configuration and consequent limited linear excursion capability of the Lowther drivers. As the uneven on-axis response suggests, diaphragm breakup modes are also a significant feature, resulting in a very messy cumulative spectral decay waterfall above 2kHz [see Graph 2, below]. KH



ABOVE: An erratic response with bass dropping away below 500Hz and presence/treble above 2.5kHz



ABOVE: Breakup modes come thick and fast from the Lowther driver as this cumulative decay plots shows

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	101.9/101.7/102.7dB
Impedance modulus min/max (20Hz-20kHz)	5.0ohm @ 646Hz 29.6ohm @ 20Hz
Impedance phase min/max (20Hz-20kHz)	-43° @ 26Hz 44° @ 19.7kHz
Pair matching (200Hz-20kHz)	±7.7dB
LF/HF extension (–6dB ref 200Hz/10kHz)	- / 12.8kHz/19.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	- / 1.0% / 0.2%
Dimensions (HWD)	856x463x363mm

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Dynaco Stereo 70



Available in kit form with pre-assembled, tested circuit boards, this amp offered not just an affordable means of entry to the world of true hi-fi for hundreds of thousands of budding audiophiles, but a learning experience too. **Ken Kessler** on the Dynaco 70

oreigners quickly learn one thing about the British: the British claim to have invented everything. Fair enough, as most of the time they're right - the telephone, the pocket calculator, the lever escapement, ad infinitum. But there's a bit of Little Englander that prevents them from granting credit where it's due, especially if the credit has to go to the Yanks. And as much as we adore the Williamson amp, certain Leaks, the Quad II and the brilliant Radford STA-25, the most important hi-fi quality valve amp of all time is the Dynaco Stereo 70.

'What?' I hear you screaming in Basil Fawlty's best squawk. 'Put KK on the next plane!' Alas, you'll calm down once shown a single statistic: the Dynaco Stereo 70 – aka the ST-70 – sold at least 275,000 units, or as many as 400,000-500,000 depending on the source. To put that into perspective, only 90,000 Quad Ils were sold. And a number of those were in pairs.

Quantity, however, is merely a number, indicating neither quality nor importance. We can all name vile audio atrocities that sold in the RIGHT: A Dynakit 70 amp, lovingly restored by www. tuberadios.com. Four 6CA7 pentodes, one 5AR4 and twin 7199 triode/ pentode valves are used here

BELOW: Unlike previous amps for sale in kit form. the Dynaco Stereo 70 needed only the transformers, controls and power supply to be connected to the supplied circuit boards and the owner had a working unit. The '70 employed two 7199 triode/ pentodes, four **EL34** pentodes plus a 5AR4/GZ34 in the PSU



'Hafler's

"Blumlein

circuit" was a

technical leap'

millions, none of which qualifies as as a milestone. What distinguishes the Stereo 70 as a product of note beyond its sheer numbers are its influence over the audio industry, its popularising of ultralinear topology (not unnoticed by Arthur Radford here in the UK), its use of the EL34 tube in a budget product, the way it established value-for-money as something not

incompatible with high-quality sound, its availability as a kit and above

> all, its absurdly wonderful performance: still tough to fault.

Dynaco amplifiers – is the same attribute applied to Radfords, McIntoshes and Williamsons: the calibre of its output transformers.

Dynaco was not Hafler's first foray into electronics. In 1950, he and his childhood friend Herb Keroes launched Acrosound in Philadelphia, Pennsylvania, to manufacture audio-grade transformers, beginning

with models to step up the output of the then-best cartridge available, GE's Variable Reluctance.

They soon moved on to output transformers

because there weren't enough sales in making step-up transformers matched to GE's cartridge.

Transformer manufacture was a viable business in those days because, in addition to the potential for supplying manufacturers of amplifiers who didn't wind their own, most audiophiles back then built all or part of their systems. It was the era between the end

A MIGHTY WIND

Audio mavens point out one particular stage in its evolution as the key to its brilliance. While there are many elements to the saga, not least being Dynaco co-founder David Hafler's desire to offer affordable products worth owning, the basis for the ST-70's competence – indeed, of all the



of WWII and the launch of the LP, the former creating a generation of military-trained electronics engineers, the latter creating a demand for something better than an all-in-one console. This was a global phenomenon; the only difference was that the US market had a lead of five or six years over Europe as far as disposable income was concerned.

While working with Keroes at Acrosound, Hafler modified Blumlein's 'Ultralinear' circuit, by using taps from the output transformer to feed the signal back into the output stage screen grid circuitry. It was a technical leap that solved the need for more power without increasing distortion. This established the credibility of Acrosound transformers, which found their way into both homemade and commercially-produced amplifiers. Hafler was delighted to discover that their transformers bettered those from Peerless, which were marketed as the ideal transformer for a DIY design in a major US magazine.

PRE-ASSEMBLED BOARDS

Keroes, though, was more interested in mass-producing transformers for sale in bulk to TV manufacturers, so he and Hafler parted company. Hafler, inspired by Heathkit, Knight and others, decided to produce amplifier kits. Here was the first innovation of many: Hafler subcontracted the most work-intensive part of kit-building - stuffing the PC boards - which enabled him to keep costs down.









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Unlike his rival kit-suppliers, Hafler's would not require customers to fill the boards themselves. His new company, Dynaco, would also develop what became the standard of clarity for kit instructions, making life easier for those who couldn't transfer with ease the circuits from Audio or Wireless World into viable home-built models.

Although Heath's and Knight's kits, as well as magazines' DIY projects, provided a well-trodden path to audio bliss for the cash-shy, they required more than TOP: Dynakit 70 main board (see original below, left) again restored by www. tuberadios. com; modern polypropylene capacitors are fitted - these are Sprague 715 'orange drop' style components

ABOVE: Original advert for Hafler-designed Acrosound transformers (left) and (right) review of the Dynaco ST-70 amplifier with measurements from December 1959 issue of High Fidelity magazine

LEFT: Main circuit board and parts from an original Dynaco ST-70 showing hardwired connections to the EL34 pentode sockets





builder to choose a circuit, source the parts - including the choice of transformer, which would govern the ultimate performance - and then assemble the lot, including the fashioning of a chassis.

With Dynaco's pre-assembled circuit boards, all factory-tested before shipping, and a chassis indistinguishable from factory-made components, the builder only had to follow instructions hardly more complex than building a model airplane kit. The instructions even taught the customer how to solder. Assembly included mounting the boards, connecting everything including the transformers, attaching the controls and bolting the package together. A few evenings were all that was required.

SINGLE-VALVE CIRCUIT

During the period Hafler was parting from Keroes, he met a designer named Ed Laurent, who had designed a clever single-valve driver circuit for a power amplifier. With Laurent, Hafler founded the Dyna Company in 1955, launching the brand with the Mk II 50W amplifier. It would establish the pattern for all the amplifiers that would follow, being sold as either a kit or a factory-assembled unit for slightly more money. The Mk II >

AUDIO MILESTONES

remained on sale into the 1960s, and it now enjoys collectible status like its progeny.

Up and running, Dynaco produced a series of classics, including a high-power Ultralinear modification of the Williamson circuit, it responded to the likes of McIntosh, Scott and Fisher with the 60W Mk III of 1957 (the first US-made amplifier to employ the then-new KT-88 from England), a series of preamps commencing with the PAM-1, and even FM tuner kits. But the arrival of stereo forced Dynaco to produce a single-chassis, two-channel amplifier.

STEREO POWER AMP

As the 1950s drew to a close, Dynaco adapted its catalogue to suit stereo by producing, for example, a passive stereo adapter that joined two mono PAM-1 preamps. According to legend, in 1958-9, to create their first stereo power amplifier, Dynaco engineers Ed Laurent and Bob Tucker whipped up

RIGHT: The restored main board on a cleaned original chassis with tubes in place; an original Dynacobranded 7199 tube takes centre stage

BELOW: Original cloth lead power and audio transformers removed from the chassis - drop-in replacements are readily available online from companies such as www. dynakitparts.com



the Stereo 70 while David Hafler was away on a business trip.

It would sell for \$99 in kit form, approximately £750 in today's money for a power amp that - to modern ears - is the equal of any current 35W-50W/ch valve amp with a price tag three times that amount. For another \$30, you could buy it completely assembled. What you got was, effectively, a pair of under-stressed Mk IIs on a single chassis. In what is now the definitive stereo valve amp layout, it placed its mains transformer and separate A-470 Ultralinear output transformers across the back, the valves laid out symmetrically, flanking the main circuitry; the circuitry for both channels fitted on

a single, centrally-positioned PCB. Valves included a separate RCA 7199 as the driver/phase inverter for each channel, while a single GZ34 served as a rectifier. The Stereo 70's output tubes were EL34s in pushpull mode, sourced from Mullard or Amperex. Rated at 35W/channel, the Stereo 70 operated the EL34s well within their limits; from my own experience, the amps were exceptionally reliable and I've never heard anything about fragility from other users.

FROM DYNA TO ARC

Among the rarest and most collectible of all Dynaco Stereo 70s are those which Bill Johnson modified for his clients at Electronics Industries. These were not sold as kits, but as factory-finished units. The first model was the ST-70 C1, which used a standard ST-70 chassis and transformers, to which Bill fitted independent left and right volume controls, an Electronic Industries PCB-14 circuit board with six valves and higher-quality parts, superior power supply regulation and the deactivation of the octal

plug. Modestly, no label was added to the unit. Collectors believe less than 50 were made - probably all hand-made by Bill.

It was followed by the Electronic Industries ST-70 C2, which improved on the C1 with the addition of more robust speaker terminals, the removal of the Dynaco's octal plug, improved parts and a proper label identifying it as an Electronics Industries product. Bill fitted Mullard EL-34 output valves and Telefunken and RCA input valves, he also upgraded C1s into C2s. It is believed around 100 were made.

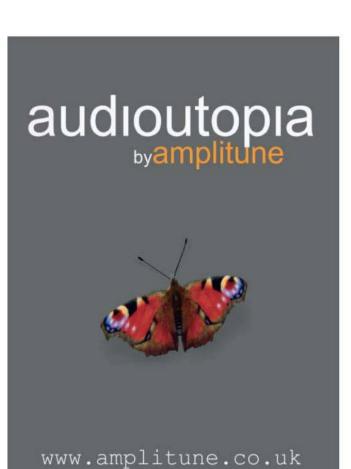
Also related to these amps was a kit made available through the magazine Audio Amateur, which published plans for the 'ST-70-C3' in 1977; Electronic Industries did not sell a factory-finished C3.

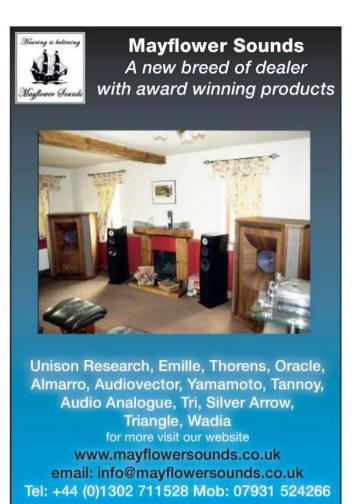
Completists would want to drive their C1s, C2s or C3s with Bill's matching preamp, the PAS-2. This was based on the Dynaco PAS-2, but little of the original remained. Inside were seven 12AX7s, new circuit boards, an octal plug for connection to its external power supply and a loudness control was fitted. The preamp retained the PAS-2's front panel.

MUSICAL MIDBAND

Collectors covet these amplifiers for two primary reasons: straight out of the box (or freshly assembled), they sound simply delightful, slightly warmer than a Radford STA-25, if less tight in the very bottom end. Like the Radford, they punch well above their class, driving speakers that you'd think need more power. They offer ample detail, a wellformed soundstage and a 'musical' midband that's so convincing you'll find the sound hard to resist.

It's the second reason which forces collectors to be careful: Stereo 70s responded so well to tweaks that many have been modified, with circuitry and power supply improvements from a number of modifiers. My own ST-70 runs KT77s, and it has been subjected to a few of Frank Van Alstine's less-intrusive, but well-tried mods. If you find an early, unmodified example, it will have a nickel-plated chassis; later chassis were chromeplated. The valve cage was finished >>





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AUDIO MILESTONES

in brown vinyl paint, later changed to grey-brown; the 1990s reissues were black. Hardcore Dynafans also seek out early models with clothinsulated lead wire, and know of myriad transformer variations.

I've yet to hear a bad one, and even recall enjoying the Panor Corp reissues of the 1990s with fondness.

SOLDIERING ON

As Dynaco changed hands a few times, the Stereo 70 soldiered on, remaining on sale into the 1990s, until original parts ran out. I bought my PAS-3 kit from a company called Stereo Cost Cutters, which had ample stocks of parts sufficient for selling complete kits, along with Mk

IVs and Stereo 70s, well into the 1990s. If you find one of those, you'll have one of the 'newest' of the 'real' Dynacos; purists do not regard the Panor reissues as quite the same.

Now, to what many might consider to be the two least important of the Stereo 70's achievements, but which I feel warrant its milestone status.

This only applies if first you accept that the USA was/is the world's largest market for hi-fi equipment, its consumption of hi-fi having benefitted every brand able to distribute there, and second, if you feel that the Dynaco's availability as a kit and its suitability

for hot-rodding played a major role in the evolution of the high-end.

Here's my convoluted logic: as regards the Dynaco's importance in the USA, the Stereo 70's \$99 kit price enabled legions of music lovers with limited disposable income to own an amplifier with performance otherwise beyond their reach.

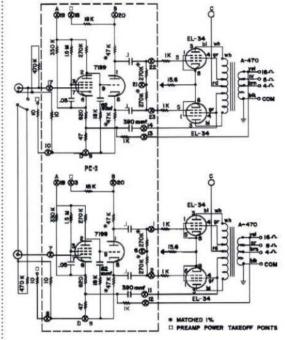
Better still, as they built it, they acquired a knowledge of the workings of an electronic circuit that would always serve them in good stead. As both a learning experience and an affordable means of entry to the world of true hi-fi for those of limited means, over many years the Dynaco Stereo 70 benefitted a good few hundred thousand budding audiophiles.

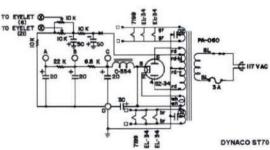
ALIVE TODAY

As the valve era waned and solidstate devices took over, a dedicated band of tube-ophiles kept the

valves a'glowing – men like Van Alstine, who created wonderful modifications for Stereo 70s, and who keeps Dynacos alive to this day. Another was William Z Johnson; in the late '60s and early '70s, he modified Stereo 70s and sold them under the Electronic Industries banner. The power amp was the precursor to his Dual 50, the PAS-2 would evolve into the SP-1.

The Dual 50 and the SP-1 would carry the name 'Audio Research'. ©





DYNACO STEREO 70 SPECIFICATIONS

Power Output: 35W/ch

Frequency Response: ±0.5dB, 10Hz-40kHz Power Response: 20Hz-20kHz, within

1dB of 35W, <1% distortion

IM Distortion: <1% @ 35W (typically

0.5%); <0.05% at 1W
Hum and Noise: >90dB below rated power

Sensitivity: 1.3Vrms input for 35W

Output Impedance: 4, 8, and 16ohms

Damping Factor: 15:1 Channel Separation: >55dB Power Consumption: 190W

Provision: Two power takeoffs with

independent heater windings

Valve complement: 4x EL-34, 2x 7199, 1x GZ-34 Dimensions: 13x9.5x6.5in (wdh)

Weight: 32lbs

Original Price (1959): \$99 kit, \$129 assembled

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'It played a

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LEFT & TOP: Original assembly instructions for the Dynaco ST-70 in kit form with the circuit diagram (top) as supplied to hands-on enthusiasts back in the late 1950s/early 1960s

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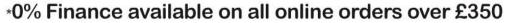
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DPA 50S 3 BOX PRE AMP & NOS.50S POWER AMP INTERCONNECT & 5M PAIR SPEAKER CABLE		22700
INTERCONNECT & SM PAIR SPEAKER CARLE	TIMIOUE	62500
NAKAMICHI SYSTEM ONE 600II TAPE/610PRE/620 POWER	UNIQUE	22000
/630 TUNER PRE/RM 610/DS-100 TIMER ALL RACKED	UNIOUE	PHONE
REVOX H-5 INTEGRATED AMP & REMOTE	UNQUE	£1995
ULTRA RARE NAKAMICHI 620 POWER AMP.		
ULIRA RARE NAKAMICHI 620 POWER AMP	BUXED	£5/5
MAGNUM DYNALAB MD-208 TUNER AMP	EXCLI/BOXED	£1595
DK DESIGN VS.1 SIGNATURE MKIII INTEGRATED	DEM/BOXED	£2450
PASS LABS ALEPH P PRE AMP	EXCLT	£1150
XTC PRE-1 (REMOTE)/POW-1 POWER AMP (£3000+)	MINT/BOXED	€1495
TECHNICS A-800 MKII INTEGRATED		
MARANTZ MA-700 MONOBLOCS		
MUSIC FIRST SILVER PRE AMP (£3K?)	DEM	£2250
ALCHEMIST FORSETTI 2 BOX PRE RCA/XLR		
H-CAT 12-B PRE WITH WTC CONTROL (£2800)	DEM	£1750

H-CAT P-12A PRE AMP (£2500?)	DEM	£1250
ROTEL RB-870BX STEREO/MONO AMP	EXCLT	£175
ADVANTAGE (200 INTEGRATED AMP	FXCLT/BOXED	9795
ROKSAN S-1 PRE AMP NO PSU	EXCLT	£295
ROKSAN S-1 PRE AMP NO PSUVALVE AMPS		
EAR 509 MONOBLOCS 25th ANNIVERSARY ED. VTL ULTRA LINEAR 75/75 STEREO POWER AMP (KT90)	MINT/BOXED	£3750
VTL ULTRA LINEAR 75/75 STEREO POWER AMP (KT90)	VGC	E875
ICON AUDIO STEREO 40 & TUBE RINGS	EXCLT	£595
TUBE TECHNOLOGY SYNERGY INT.AMP	EXCLT	£2999
BALANCED AUDIO TECH. BAT VK-60	EXCLT/BOXED	£2450
ROGUE AUDIO 88 POWER AMP	EXCIT	£795
MUSIC FIRST SILVER PRE AMP (£3K?)	EX DEM	£2250
ROGUE AUDIO 66 MAGNUM REMOTE PREAMP	MINT/BOXED	9795
ANTIQUE SOUND LABS 'THE WAVE MONOBLOCS	FY DEM	£300
AUDION REF. BATTERY POWERED PRE AMP & PHONO (£2500)	NOS	6806
ANTIQUE SOUND LABS AQ1000DT TWIN 845 MONOBLOCS (ES	non Excit	£2750
ANTIQUE SOUND LABS LJ01 PRE AMP/HEADPHONE AMP	MINT/BOYED	6205
UNISON RESEARCH FEATHER PRE/35 POWER	EYO T/BOYED	£1205
MUSICAL FIDELITY X10 V3 TUBE BUFFER	MINT/POYED	C176
MUSICAL FIDELITY X-10D	EVELT	0100
MUCICAL FIDELITY V. TOME	MINIT/POVED	6106
MUSICAL FIDELITY X-TONE	MINEL/BUXED	£130
PAME GOVA LINDED & VEADO OLD	EVOLT	04750
SME 20/A UNDER 3 YEARS OLD	EAGLI	14/30
MKII AIR BEARING TONE ARM/SUMIKO BPS	MOG	00750
VPI HW-19 MKIII & POWER LINE CONDITIONER ELEC.SPEED CHANGE /A/QUEST ARM/ CART/LID	EVOLT.	01000
ELEC.SPEED CHANGE /A/QUEST ARM/ CART/LID	EXCLI	£1295
TOM EVANS THE GROOVE PHONO STAGE	EXGL1	£/5L
AUDIO NEMESIS MM PHONO STAGE. McCORMACK MINI PHONO DRIVE (MM/MC £600?)	GC/BOXED	£475
MCCORMACK MINI PHONO DRIVE (MM/MC £600?)	EX DEM	£345
PROJECT PHONO BOX	EXCLT	£45
LOUDSPEAKERS		
HYPERION HPS 938W GORGEOUS BIRDS EYE MAPLE	MINT/BOXED	£3250
AVANTEGARD DUO 2.0s (RARELY AVAILABLE)	EXCLT	£4850
PODIUM ONE (HUGE PANELS £6000?)	MINT/BOXED	£2895
RUARK TALISMANS EXTERNAL X-OVÉR	EXCLT	£395
AMPHION NEON	VGC/BOXED	£275
MIRAGE M1si BIPOLAR GIANTS (£6500)	EXCLT	£1995
ADVANCE ACOUSTIC UM-40 (FEW MONTHS OLD	MINT/BOXED	£395
AURUM CANTUS LEISURE 2SE (RARE MAPLE)	NEW/BOXED	£495
EGGLESTONWORKS ROSA		
MARTIN LOGAN CLARITY	EXCLT	£1695
SNELL TYPE C MK IV AMERICAN OAK	EXCLT	£995
LINN KANS AND DEDICATED STANDS	EXCLT	£375
REFERENCE 3A VEENA (SUPERB £3000)		
MARTEN MILES II CHERRY (8k+ NEW)	EXCLT	£3750
FAB AUDIO MODEL-ONE (RETAIL £7500)	EX.DEM	£4750
AUDIO NOTE ANE-D SILVER BINDING POSTS	GC	£895
B&W DM602 MKIII	EXCLT	£249
CELESTION A-2 SANTOS R/WOOD (£15/1600?)	BRAND NEW	£995
A.L.R. JORDAN NOTE 5 FLOORSTANDERS (£2500)	EX.DEM	£1195
CURA CA-30 FLOORSTANDERS (MAPLE)	MINT	£995
PROAC STUDIO 150	FXCIT	6604
CASTLE HOWARD S2 ROSEWOOD	EXCLT/BOXED	£695
HADDED OF HADTETO (CARROL)		£2250

	PHONE GEOR					
	H-CAT P-12A PRE AMP (£2500?)	DEM	£1250	AURUM CANTUS V3M GLOSS BLACK (£1700)		
BA	ROTEL RB-870BX STEREO/MONO AMP	EXCLT	£175	AURUM CANTUS VOLLA (RETAIL £2500)	EX.DISPLAY	£1750
95	ADVANTAGE i200 INTEGRATED AMP	EXCLT/BOXED	£795	AURUM CANTUS MUSIC GODDESS £2500		
95	ROKSAN S-1 PRE AMP NO PSU	EXCLT	£295	TUNER/TAPE/MISC.		
95	VALVE AMPS			MUSICAL FIDELITY X-TONE		£10
95	EAR 509 MONOBLOCS 25th ANNIVERSARY ED.	MINT/BOXED	£3750	DENON TU1800 TUNER		
75	VTL ULTRA LINEAR 75/75 STEREO POWER AMP (KT90)	VGC	£875	ARCAM DT 81 REMOTE DAB TUNER		
50	ICON AUDIO STEREO 40 & TUBE RINGS	EXCLT	£595	MAGNUM DYNALAB FT-11 TUNER		
95	TUBE TECHNOLOGY SYNERGY INT.AMP.					
95	BALANCED AUDIO TECH, BAT VK-60	EXCLT/BOXED	£2450	SONY 777ES DAB/AM/FM REMOTE CONTROL TUNER	MIN1/BUXED	£34
95	ROGUE AUDIO 88 POWER AMP			SONY 777ES DAB/AM/FM REMOTE CONTROL TUNER		
75	MUSIC FIRST SILVER PRE AMP (£3K?)			SONY SMDS JB 920 MINIDISC PLAYER		£
49	ROGUE AUDIO 66 MAGNUM REMOTE PREAMP	MINT/ROXED	6795	INTERCONNECT CAB		
75	ANTIQUE SOUND LABS 'THE WAVE MONOBLOCS			VERTEX AQ SILVER SOLFONN 1 METRE XLR	EXCLT	TB/
95	AUDION REF. BATTERY POWERED PRE AMP & PHONO (£2500)			VAN DEN HUL THE FIRST 0.8 METRE		£149
95 95	ANTIQUE SOUND LABS AQ1000DT TWIN 845 MONOBLOCS (5			INCA DESIGN 1 METRE		TRA
95	ANTIQUE SOUND LABS LJ01 PRE AMP/HEADPHONE AMP			STRATOS I METRE		
95 95	UNISON RESEARCH FEATHER PRE/35 POWER			DPA BLACK SLINK I METRE XLR BALANCED	EVCI	6240
	MUSICAL FIDELITY X10 V3 TUBE BUFFER			DPA SLINK 1 METRE BALANCED		
50	MUSICAL FIDELITY X-100			BLACK RHODIUM ORATORIO 1 METRE XLR		
95	MUSICAL FIDELITY X-100	MINIT DOVED	£125	RENAISSANCE SILVER CABLE 2 METRE BALANCED	EXOLT	2243
50	MUSICAL FIDELITY A-TUNE	MINI/BUXEU	£190			
99	SME 20/A UNDER 3 YEARS OLD	EVOLT	04750	NIRVANA DIGITAL COAX 4FT (SUPERB)	EX.DEM	£249
95	SME 20/A UNDER 3 YEARS OLD	EXCLI	£4/50	ATLAS ELECTRA 2 METRE BALANCED.		
95	NOTTS ANALOGUE MENTOR/EMINENT TECHNOLOGY MIKII AIR BEARING TONE ARM/SUMIKO BPS	2000	020000	XLO PRO 1METRE AND 0.5 M ETRE RCA (SIX OFF)		
95		VGC	£2/50	BLACK RHODIUM SYMPHONY 1 METRE RCA	NEW	£50
50	VPI HW-19 MKIII & POWER LINE CONDITIONER	220000	494999	QUANTITY OF ITALIAN ART AUDIO CABLE 3 INTERCONNECTS 1	M/1.5M/2M	
95	ELEC.SPEED CHANGE /A/QUEST ARM/ CART/LID			AND 4 LENGTHS OF 3 METRE LOUDSPEAKER CABLE		£1000
75	TOM EVANS THE GROOVE PHONO STAGE			LOUDSPEAKER CABL		10000
25	AUDIO NEMESIS MM PHONO STAGE			NORDOST RED DAWN 4 METRE BI WIRE	BOYED	DEE/
95	McCORMACK MINI PHONO DRIVE (MM/MC £600?)			MIT MH-750 2.5 METRE PAIR BI-WIRE	NCC	CEO
95	PROJECT PHONO BOX	EXCLT	£49	RAPPORT (USHER) 5 METRE PAIR FACORY TERMINATED		
50	LOUDSPEAKERS			NORDOST SPM 3 METRE BI-WIRE PAIR (£3000 NEW)	EX.DEW	£290
50	HYPERION HPS 938W GORGEOUS BIRDS EYE MAPLE		£3250			
	AVANTEGARD DUO 2.0s (RARELY AVAILABLE)			NORDOST BLUE HEAVEN		
95	PODIUM ONE (HUGE PANELS £6000?)	MINT/BOXED	£2895	NIRVANA SL-3 2.3 METRE PAIR		
95	RUARK TALISMANS EXTERNAL X-OVÉR	EXCLT	£395	XLO SIGNATURE 2 TYPE 5.2 4FT PAIR		
50	AMPHION NEON	VGC/BOXED	£275	QED GENESIS SILVER SPIRAL 3 METRE PAIR		
95	MIRAGE M1si BIPOLAR GIANTS (£6500)	EXCLT	£1995	XLO REF.2.5 METRE PAIR	EXCLT	£325
50	ADVANCE ACOUSTIC UM-40 (FEW MONTHS OLD	MINT/BOXED	£395	DPA BLACK SLINK 4.5 M.PAIR		
	AURUM CANTUS LEISURE 2SE (RARE MAPLE)	NEW/BOXED	£495	MIT MH-750 BI WIRE 3 METRE PAIR	EXCLT	9699
50	EGGLESTONWORKS ROSA	EXCLT	£2750	PS AUDIO X-STREAM 3 METRE PAIR (VERY HEAVY!)	EXCLT	P500
	MARTIN LOGAN CLARITY	EXCLT	£1695	DIAMOND HI SILVER 3 METRE PAIR		
00	SNELL TYPE C MK IV AMERICAN OAK	EXCLT	£995	BLACK RHODIUM S-300 BI WIRE 7 METRE BI WIRE (£560)		
	LINN KANS AND DEDICATED STANDS	EXCLT	£375	BLACK RHODIUM S-300 BI WIRE 5 METRE BI WIRE (£400)		
95	REFERENCE 3A VEENA (SUPERB £3000)	NEW/DIS	£1995			
50	MARTEN MILES II CHERRY (8k+ NEW)			BLACK RHODIUM S-300 BI WIRE 4 METRE PAIR (£240)		
75	FAB AUDIO MODEL-ONE (RETAIL £7500)	EX.DEM	£4750	MAINS CABLES/BLOCKS/CONDIT		
95	AUDIO NOTE ANE-D SILVER BINDING POSTS			RUSS ANDREWS 8 WAY BLOCK SUPERCLAMP/KIMBER CABLE.		
50	B&W DM602 MKIII			KIMBER STANDARD POWER CORD		
50	CELESTION A-2 SANTOS R/WOOD (£15/1600?)	BRAND NEW	£995	TARA LABS RSC AIR-2 6FT POWER CORDS (SHUKO)		
95	A.L.R. JORDAN NOTE 5 FLOORSTANDERS (£2500)	FY DEM	£1195	BLACK RHODIUM SUPER MAINS POWER CORDS	BRAND NEW	£65
99	CURA CA-30 FLOORSTANDERS (MAPLE)			STANDS		
95	PROAC STUDIO 150			SOUNDSTYLE LOUDSPEAKER STANDS	NOS	25/
90 50	CASTLE HOWARD S2 ROSEWOOD	EVOLT/DOVED	6602	TARGET R-2 LEAD FILLED		
	HARPER QUARTETO (£4000)			PIRATE STANDS FOR SNELL K ETC		
95 50	REGA XEL (ROSEWOOD £1250)			HUYGENS STANDS FOR SNELL K ETC.		000





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DEFINITIVE AUDIO

Sale of part exchanged and ex-dem items

ITEM DESCRIPTION	SALE	NEW
Wadia 861 CD player VGC. Occasional use only.	£2850	£10000
Prima Luna Prologue amplifier. Graham phantom tonearm SME base.	£600 £1900	£3300
Orpheus cartridge. Light use.	£1950	£3100
Len Gregory Conductor tonearm.	£600	
SME Model 20/2, VGC.	£2750	£4830
Impulse Kora small horn loudspeaker. Maple. Pure Sound A8000 CD player.	£350 £600	£1060
Naim NACD5 CD 2002.	£500	
Naim NAC102 Pre with NAP 140 Power amplifier 2002.	£800	-
Magnum Dynalab 106T. Superb tuner in pristine condition. 2 years old. Very light use. Gotham Type 39 monos. 50 watts, class 'A', PPP 300 B. Made by Canary Audio for Western Electric. Like CA 309 / 339 but better o/p transformers and Kondo	£2500	£3800
wire. Huge enveloping sound. Refined gluttony.	£6000	£15000
SME 20/2. May '09. As new - spotless. Less than 30 hours use. Boxed.	£3800	£4850
Revolver Turntable. c.1985 c/w OEM tonearm minus counterweight. Technics SU-7700 integrated. VU meters, wood effect wrap, 118-118 stylie.	£150 £150	-
Technics SL PS-900 CD player. Late 80's flagship. Sounds fine. Bags of facilities		_
Living Voice MC 20/80 ohm step up transformer in smart wooden plinth. Excellent.		£800
EAR 859 power amplifier. Elegant looking hair shirt unit. Smart.	£1000	-
Quad II - Forty monos. Less than 20 hours use. Perfect condition boxed.	£2000	£4000
Kondo 5-way active x-over. Made by Mr Kondo for in-house horn speaker development. Very rare, maybe unique. Invaluable asset for a man with too mar	ıv	
amps and a 5-way horn.	£5000	-
VdH Condor - XPM. 0.15 mV output. Opt load 40 ohms. 10 hours use.	£2000	£3100
VdH Grasshopper III SLA. 200 hrs. Unused since service and calibration by VdH		£2860
VdH Canary XGP. Very good. 20 hours. Fidelity Research MC201 cartridge. Fully rebuilt by V.den Hul. New cantilever and tip.	£1800	£2760
SME V-12. May 2009. Kondo silver internal wiring, 20 hours use. Perfect. Boxed.		£3600
SME IV. Kondo silver internal wiring. June 2009. Unused.	£1500	£1765
Dynaudio Contour S 3.4. Maple. 10 months old. As new.	£2000	£4500
Dali 104 speakers black. VGC.	£250 £10	-
KEF UniQ model 90 Centre channel speaker. Good condition. Please take me away. Audio Innovations Series 400 integrated amp with phono. Beefy and chew	£IU	-
sounding class 'A' fun.	£400	
Tom Evans Linear A power amplifier. As new. Someone love me.	£2500	£4400
Horning Zeus loudspeakers. Cherry. Lovely condition. Boxed.	£1000	£2200
Acoustic Energy AE1MKIII Piano Back finish. 18 months old. Immaculate condition Box. Manual. Stands included.	en. £1200	-
Wave Mechanic. 240v a/c in, 240 a/c out. Power supply for a/c motor turntables		
Big improvement.	£300	£450
Arcam Delta 80 tuner. Bit of an old bag lady, but still continent.	£75	-
Kuzma XL-2 turntable. Looks like the MI-5 building, sounds like heaven. As good as it gets.	£10000	£18000
Living Voice Auditorium II. Ex dem. Fabulous ripple-cherry veneer. Scrumptious. Light use.	£1700	£2800
Audio Innovations L2 line pre-amp. Tidy example. Living Voice upgrades.	£650	-
New Audio Frontiers 'Supreme' 300B. Hernia inducing behemoth. June '09. Rich, fluid sound.	£7000	£9800
New Audio Frontiers 'Performance' 2A3. Possibly the heaviest 2A3 integrated	17000	19000
ever. '09. Lovely. CEC DA 1N. DAC with BNC Superlink, USB, AES/EBU inputs. Balanced / SE	£5800	£8400
outputs. Sept.'09.	£2500	£4200
CEC Tube 53. Very cute and super-neat 5881 integrated. 16 watts. Sweet, refine and detailed sound. Sugden Masterclass Integrated. Very light use. Ex demo. Dec '07. As new.	£1500	£2350
Unused for 12 months.	£2250	£3675
Sugden A21aL. Line integrated. Very light use. Ex.dem. As new.	£1000	£1469
Sugden Masterclass Stereo Power Amplifier. Titanium fascia. c.5 years old. Good condition.	£1750	£3675 £500
Electrofluidics 20/20 speaker cable. 5 metre single set. New, unused. Very fine sound. AudioQuest Topaz HyperLitz interconnect. 5 pin DIN to 2 x RCA	£300	1500
JPS Labs Superconductor FX balanced interconnect.	£300	£650
Synergistic Research A/C Master coupler. 2.5 metre power cable. UK-IEC.	£150	-
Living Voice flat copper ribbon speaker cable. 5 metre set. Excellent sound.	£500	£1000
Jelco 9" tonearm. '09. Great sounding budget arm. Detachable headshell. Retro 'S' shape. Black.	£290	£450
Kore Eda LLA-1A and PLA-1. Big beefy fun from this tiny Japanese cult package.		2430
Very lovable. Icon Audio Phono LA4 preamplifier with Icon Audio capacitor upgrade. 18 mont	£1250 hs	£2500
old. Boxed.	£600	£1000
Quad 22 pre. Help me. PM Components VP-110S. EL34 integrated - rare unit. Very tidy condition.	£100 £400	-
Border Patrol Control Unit. Copper chassis model. Current spec. Very tidy.	£2500	£4000
Dunlop Systemdek II X with RB250 arm. Black. Classic simple suspended deck. Very nice.	£250	-
Enlightened Audio Designs T-8000 Universal transport. Very unusual CD transp		
Also plays 12" laser discs. Circa 1993. Surprisingly good sounding. Atlas Mavros speaker cable 1.5m pair. Boxed. Hardly used.	£300 £500	
Vitavox RH330 4-cell mid range horn.	£400 pair	-
Pioneer PDS 801 CD player. Looks good, but is broken. Good project for geek.	£1.55	-

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2. AMPS

MARANTZ CD6002, amp PM6002, as new, silver, both £250 or £135 each, Cambridge Audio 740A Azur amp as new £350 ono Tel: 07970 115378 (Bristol) [AB]

COPLAND CSA14 valve/solid state integrated amplifier, Harma vintage valves fitted, excellent, unmarked condition, supplied in original box £500 email: paul@ redboxav.com Tel: 07949 910455 (Brentwood, Essex)

BELLES Soloist 5 Stereo Power Amp, 120 hours use. mint condition, excellent reviews, sensible offers please Mobile: 07910 231 774 [AB]

RUSS ANDREWS preamp, several years old, good condition, 2 x monoblock configuration, no switches only a volume control, updated with Teflon boards, after update £1800 was total spend, will accept £400 Tel: 017683 51226 [AB]

MUSICAL FIDELITY A5

power amps £800 each and one A5 preamp £750, all in mint condition with boxes and manuals Tel: 0208 650 8185 or 0770285 0275 or e-mail: vj.barnes@btinternet.com [AB]

SUGDEN Masterclass SPA-4 stereo power amp, 50 Watts Class A. as new 7 months old £2500 ono (£3675 new) buyer must collect Tel: 01843 600722 evenings (South East Kent) [AB]

NAIM NAP 300 late 2005. mint £3250 ono, Naim NAC 252, early model and Supercap late olive, very good condition £3750, boxes and leads Tel: 02380 470107 email: lesliestubbs@tiscali. co.uk [AB]

KRELL showcase multichannel pre-processor, fully balanced with remote, manual and box £1950, email djbillinge@gmail.com Tel: 023 9229 3646 [BC]

CHAPTER Audio Preface plus preamp as new with flight case and remote, 14 months old £2000 ono (£4500 new), buyer must collect Tel: 01843 600722 evenings (South East Kent) [AB]

SONY 630ESD, 100W amp plus DAC, black, heavy weight, expansive sound, only £199, EAR 8L6 50 wrms tube, lifetime investment? £1790 (£3300) Tel: 01206 510392 [AB]

MODWRIGHT SWL 9.0 SE (Sig) valve preamplifier, remote control, one year old, immaculate with box, etc. stunning sound quality, new £2500 asking £1500 Tel: 01296 437314 (Aylesbury, Bucks) [BC]

3. CABLES

QED Qonduit MDH6 high performance 6-way conditioning block including 1 metre mains cable, new in box RRP £240, sell £100, 2 available, QED Signature Audio silver spiral, 1 metre interconnect, new in box, What Hi-Fi? star rating, RRP £100 sell £65, QED Signature Audio XT 1m interconnects, new in box RRP £150, sell £90 Tel: 01639 774144 [AB]

ANALYSIS Plus Silver Oval Interconnects, XLR balanced 1m pair £145 ono, XLR balanced 0.5m pair £125 ono, purchased 2006 and as new Tel: 01603 702330 [AB]

IPS Labs SC-2 interconnects 1 metre and 1.5 metre lengths with balanced terminations, superb quality cables at £370 & £395 or £750 for the pair, third of new price Tel: 01273 845029 (West Sussex) email: tonjen@tiscali.co.uk [AB]

JPS Labs Powercords, Digital AC £100 (£299), Analogue AC £100 (£299), Power AC+ £125 (£399) Tel Paul 07917 233468

KIMBER Select 1030 1m RCA interconnect, deep cryo treated black pearl silver conductors plus flight case, list price £1844, accept £585 ono Tel: 01294 829323 after 5pm [AD]

2 X 2.5M KIMBER 8TC speaker cable, blue and black edition with SBAN banana plugs, brand new surplus, new £396 bargain at £210 insured with tracking number, enquiries/photos email: klugheit.123@gmail.com [AB]

4. CD/DVD PLAYERS

NAIM CD5i with Trichord 4 and Never Connected PSU (£479 with receipt) mint, instructions, remote, boxed £525, Naim Armageddon power supply for LP12, mint, boxed £450 Tel: 0772 962 0621 [AB]

CD Rotel RCD820B £90, no P+P Tel: Peter 01606 784767 (Cheshire) [AB]

DENON 2800 black DVD/ HDCD + remote £150 (£750), Sony SACD 705V player, good sound £120 (£470) Tel: 01206 510392 [AB]

ROKSAN Caspian M Series 1 CD player and integrated amp, 6 months old, black, bargain at £800 each or £1500 the pair Tel: Mike 01424 753641/ email: matthews.mike@ btinternet.com (E.Sussex) [AB]

SONY D-50 CD player, 1984, Sonys second player, compact unit, portable, sadly don't have battery pack but comes with AC power dock, solid construction, ex working order, piece of rare hi-fi history, offers Tel: 07876 705266 [AB]

DENON 3910 universal player with most recent firmware for Denon Link 3rd Edition, plays everything except Blu-ray, top class SACD multichannel - with remote handset, manual and box £350, Pioneer 989AVi Universal Player – plays everything except Blu-ray, top class SACD multichannel with remote, manual and box £350 email: djbillinge@gmail.com Tel: 02392 293646 [BC]

5. DACS

MUSICAL FIDELITY

Tri-Vista 21 Dac in mint condition, new tubes less than one year ago £550 Tel: 01205 366691 [AB]

FUBAR USB DAC for sale in mint condition £80, cost £125 new, great little DAC for use with PC, see Sept '09 HFW for full review Tel: 01424 753641 or email matthews.mike@btinternet. com (E.Sussex) [AB]

AUDIO Synthesis DAX, original model, 32/44/48kHz class-leading in its day, £300 email: djbillinge@gmail.com Tel: 023 9229 3646 [BC]

7. SPEAKERS

ATC SCM50 ASL Active towers in walnut, only two months old, very reluctant sale due to loss of job, amazing speakers, mint, as new condition, boxes etc cost £9500 sell £6200 Tel: 07876 705266 [AB]

WILMSLOW Audio hand-built large floor standing Classique loudspeakers, 910mm tall x 260mm wide x 300mm deep, too large after all my efforts for my room, £1050 or vno, buyer will have to collect, 40kgs in weight Tel: Vic on 01372 456196 anytime [AB]

WILSON Watt/Puppy 8 speakers, mint condition approx one year old in Bugatti Blue custom finish crates docs

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etc. choice of black and grey grilles as on Wilson website, serious offers only, email: mrpauld@hotmail.com [AB]

ATC Scm7 (pair) £180, Adam Audio Sub-24, two by 12in drivers, heavy duty active pro subwoofer, domestic use only, bought new Dec 2008 £900, Adam Audio active Pencils, bought new Feb 2008 £1900, sale due to purchase of new Adam S5A monitors Tel: 07887 591440 (Berkshire) [AB]

AVI duo Active loudspeakers. (no amplifier required) see AVI website for details, two years old, pristine condition, in cherry £1800 new, reasonable offers considered Tel: 017683 51226 [AB]

KEF Reference 105.3 Loudspeakers in black ash, very good condition £700, 2x4m original Hitachi LC-OFC speaker cable (Bi-wire) £50, yogether make a wonderfully expansive sound Tel: 01949 876957 (Notts) or email: nickpolly@ntlworld.com [AB]

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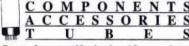
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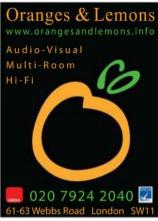


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Apart of PC Moda, a Time Warner Company

LAST WORD

The subject of cables leaves Ken Kessler cold. except, of course, when writing about them...

robably past the point of irritation, I have stated again and again how much I hate writing about or reviewing cables. My reasons are two-fold. The first is that they are so utterly system-dependent that I feel it is impossible to make any consistent, general statements about their performance. This doesn't apply to whole components, especially loudspeakers and power amplifiers, which seem to retain most of their character no matter what system they're in; wires are too chameleon-like.

> 'I am therefore forced to regard cables as I do acupuncture'

PRICE NOT RIGHT

Pricing is the second reason why cables grind my gears. In the 30 or so years that I have been aware of cables' alleged sonic properties, not once

has any manufacturer been able to convince : me that his/her wires are worth anything even approaching the astronomical prices appended to them: not gold, not silver, not multi-strand, not even ones with alpaca or vicuna dielectrics and a free weekend with Monica Bellucci thrown into the deal.

At this point, it's worth dispatching a third cable-related issue, important but arguably more amorphous and not solely the province of wire makers: that of the mandatory bull**** factor. For each cable producer with a level of technical legitimacy, eg those employing qualified metallurgists, there are

two who merely order wire from Asia Inc, who have their name printed on the outer sleeve, and who then conjure up a fantasy sales pitch and a fantasy sticker price.

Given that charlatans operate in every field of commerce known to man, from hoteliers all the way down to bankers, it's probably true to say that cable con artists are among the most ineffectual of villains in the greater scheme of things: in global terms, they don't register on the same scale as terrorists. But that's only relative to the serious villainy that takes place outside of

audio, in the world at large which is replete with victims of genuine loss and in which crimes occur on a far greater scale.

Admittedly, within our world, cables are responsible for little more than emptying

our pockets, while undermining any credibility audio might once have had. No bankruptcies, no leaping off the 18th floor of a skyscraper in the City; cable chicanery is almost benign.

AND SYSTEM DEPENDENCY?

But back to the two primary causes of my disgust. As for the first, one might argue that absolutely every component ever made is system-dependent. But in my experience, an LS3/5A always sounds like an LS3/5A, a Naim amp like a Naim amp. Wires, which seem to me to differ by only the most subtle :

of degrees, either have sonic traits that are easily masked, or their overall behaviour alters inconsistently even when switching from, say, one CD player to another. That, though, is strictly a problem with my perception, not the cable makers.

Pricing can be dismissed with a simple 'people pay what they think something is worth.' Although I, too, am guilty of having praised cables costing offensive sums, I always try to stay grounded by acknowledging that non-audiophiles must think those who buy such cables are insane.

Example: interconnects priced at £3500 a metre are not uncommon in our world. Tell a 'normal' person that a piece of wire can sell for more than an Omega chronometer or half the price of a Renault and they'll be far more offended than they would be with the cost of an £80 cigar which you actually destroy to enjoy.

No, I am not relenting in my disdain for cables. I remain absolutely antipathetic. But I do keep to hand Atlas, Chord, Kimber, Transparent and Yter for reviewing and I also respect Siltech, Crystal, Cardas and a few others. What prompts this reflection about cables, the true 'C-word' if ever there was one - is a recent incident that reminded me why all of us continue to tolerate them:

IRRECONCILABLE DIFFERENCES

During a group listening session with Editor Miller and three colleagues, with an unfamiliar system of average resolution, we changed a short balanced cable between CD player and preamp. Every one of us heard the change, and we heard the same thing (despite studio pros believing that you can't detect any differences with balanced cables unless you're talking about many meters of wire).

I am therefore forced to regard cables as I do acupuncture. And that is, while acupuncture didn't work for me, it did have a discernible affect - if not the one I wanted. By that definition, acupuncture does do something; it was not imagined.

So, yes, wires clearly 'do something'. But that 'something' bears no relation to price, promise, promotion nor practice. Which is another way of saying that cables are simply 'taking the 'p'.' In the plural. ()

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Yet the Summit X never sounds heavy. On the contrary, its performance is extraordinarily fast and open, painting an image that dances boldly before the listener, fully scaled and unconstrained, a sound that's natural, effortless and startlingly real.

The pinnacle of MartinLogan's hybrid electrostatic technology, the Summit X joins an extensive range of speakers encompassing freestanding, on-wall and in-wall models, from affordable hybrid designs and standalone subwoofers to the awesome CLX – the best full-range electrostatic speaker money can buy.

Set your music free with MartinLogan speakers, brought to you by Absolute Sounds – premier importer of the world's finest hi-fi.





