BUDGET LOUDSPEAKERS - KEF CODA 7 AND MISSION 731 BATTLE IT OUT
FIVE PAGES OF BARGAIN USED HI-FI. THE BEST CHOICE AVAILABLE!

MICHELL ORBE
THE BEAUTY OF VINYL

COMPETITION - WIN DPA'S ENLIGHTENMENT CD PLAYER

LINN MIMIK CD PLAYER

HEYBROOK'S HEYSTAK LOUDSPEAKERS

SUPPLEMENT NO. 14 banded to this issue

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There's no other choice!
Trust your instincts.
This month we are focussing on the state of CD and LP today, bringing you the latest views and developments.

- Michell Engineering produce some fine turntables. This month we’ve pulled out all the stops to bring you their fabulous new Orbe, a turntable that will surely get the best from any record collection. Who wouldn’t aspire to such an intriguing product in their home? There’s still plenty of wonder left in vinyl - including its sound!

- Vinyl is enjoying a modest but significant revival worldwide, helped along by musicians, DJs and independent record companies who’ve campaigned strongly to preserve part of our musical heritage. We’ve been watching developments closely and bring you the full story on page 21.

- What happens when LP master craftsmen Linn turn their impressive skills to the CD player? Most of the Mimik, reviewed on page 13, is made in-house by their dedicated engineering facilities. Few British audio manufacturers make so much of a player themselves. This is the level of commitment they’re bringing to improving of Compact Disc.

- When Pioneer launched Legato Link, they talked about capturing the secrets of analogue sound on CD. Denon have followed them with Alpha Processing, now available on their affordable DCD-1015 player. It too is meant to produce smooth, analogue-like sound. Does it succeed? See our detailed review on page 25.

How ironic that more and more people in the electronics and music business should now use "analogue sound" as a benchmark of quality! Once CD was believed to be perfect. Now people are talking of the need to recapture that certain 'magic' of original analogue sources. CD's hard, sterile presentation is now acknowledged as deficient, and the race is on for improvement.

At Hi-Fi World we’ve always tried our hardest to crank CD sound up to LP quality, but still the invisible barrier of its inadequate specification remains. Having heard improved CD at length, in the form of HDCD, we know that significant improvement is both needed and possible. This is the future - CD that sounds more like LP, but without its weaknesses.

Sadly, it’s already looking a bit confused, with audio HDCD, Multimedia CD and now Super Density CD. Stay with us at Hi-Fi World and keep listening - we’ll be keeping you abreast of these new developments.

Noel Keywood,
Editor
**AMPLIFIERS**

**LIFE ON A BUDGET**

David Price gauges how five popular £250 amplifiers from Arcam, Aura, NAD, Pioneer and Pro-Ject cope with the rigours of daily life.

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**JAMO 307**

Dominic Baker assesses the chances of Scandinavian manufacturer Jamo's latest £300 bookshelf loudspeaker.

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**TURNTABLE EXCLUSIVE!**

**MICHELL ORBE**

John Michell's stunning new super-deck gets its first review by Eric Braithwaite.

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**COMPACT DISC**

**LINN MIMIK**

Noel Keywood and David Price find that Linn's most affordable CD player, the £800 Mimik, will be just the ticket for digital Linnies.

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**DENON DCD1015**

Noel Keywood auditions Denon's new CD player, featuring the cheapest implementation of their Alpha Processing system to date.

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**JVC XL-Z574**

David Price finds that the XL-Z574 is not in fact a cruise missile but a humble domestic JVC Compact Disc player, and quite a good one, too.

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**DIGITAL COMPACT CASSETTE**

**PHILIPS DCC 170**

David Price auditions Philips' new portable 18-bit Digital Compact Cassette player.

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**TUNER**

**ROTEL RT-990BX**

Avid radio listener Eric Braithwaite reviews Rotel's promising new Michi-based tuner.

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**HEADPHONES**

**KEF CODA 7 MEETS MISSION 731**

David Price compares two of the best budget standmounters on the market.
REGULARS

NEWS
An in-depth look at what's happening in the hi-fi world.

LETTERS
World readers expound on issues that concern us all.

QUERIES
The team get to grips with your hi-fi problems

MEET YOUR MAKER
Who makes what and how to get in touch.

COLUMNS
Comment, criticism and overviews on the ever-changing hi-fi scene.

NEXT ISSUE
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FEATURES

VINYL SPECIAL
David Price finds out exactly what's happening to that most treasurable of commodities, the vinyl disc.

HOW TO GET GOOD STEREO
PART II
Noel Keywood brings proof positive that stereophonic sound does exist and can actually be recreated successfully in the home.

DIY SUPPLEMENT
In this month's DIY Supplement there's a transmission line monitor loudspeaker using HDA drivers, a feature on preamp valves, book reviews and much more for the hi-fi enthusiast.

COMPETITION
Win a DPA Enlightenment drive and convertor - one of the best ways to play CDs.

MUSIC
Our guide to some of the best new releases.

ROCK RECORD OF THE MONTH:
Carter USM: Worry Bomb

CLASSICAL RECORD OF THE MONTH:
Leos Janacek: Msa Glagolskaja
(Glagolitic Mass)

ROCK AND POP

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Suona (Sound, Italy)

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"Wonderfully transparent, polished sound that really allows you to hear into the music easily" What Hi-Fi

"Tamed unwanted sibilance making the sound more natural" Audiophile

"Amazing upgrade that was worth every penny" Mr. R. Ness, Zeals

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TOSHIBA ANNOUNCES MULTIMEDIA CD RIVAL!

Out of the blue comes the announcement that there is to be a rival for the Philips/Sony Multimedia Compact Disc. Called the Super Density disc, or SD disc, it's a double-sided CD capable of storing nearly four and three-quarter hours of video (142 minutes per side) — enough to accept any film. Up to eight channels of audio will be available, either for surround sound or for multiple languages. Although double sided, the CD would not be turned over manually like an LP, but read from both sides sequentially by a couple of lasers.

We understand that Sony have already complained to MITI, Japan’s governmental Ministry of International Trade and Industry, asking them to intervene in what could be a potentially disastrous battle between rival systems. Otherwise there could be a re-run of the VHS/Betamax/Video 2000 battle, but this time over non-recordable video discs. The general view is that such conflicts seriously undermine consumer confidence and do no one any good.

Sony and Philips are facing an overwhelmingly powerful alliance of rival manufacturers. In addition to Toshiba, who developed the new SD disc, Hitachi, Matsushita (Technics and Panasonic), Pioneer, Thomson and Time Warner are all supporting the format. Others giving it endorsement are Mitsubishi, JVC, Denon, and Toshiba-EMI.

With a storage capacity of no less than 10 Gigabytes, the new discs could offer fantastic audio quality. Furthermore, SD players could read today’s CDs, possessing what’s known as ‘backward compatibility’. Needless to say, they could also act as computer read-only (ROM) memories.

The new SD player relies upon use of a shorter wavelength red laser, instead of infra red used at present, to pack more information onto a normal 5in disc. New modulation and error correction schemes also help, plus digital video data compression. So the system is much like that proposed by Philips and Sony, where standard CD is upgraded by using smaller pits on a tighter spiral than at present, plus more efficient information coding techniques. The official press release even mentions use of a blue laser in future.

Sony and Philips, in conjunction with 3M, are also developing a multi-layer disc that is read from one side by a laser able to re-focus to different depths. IBM has carried out research into this approach too. So we are now faced with a single-sided, multilayer video CD versus a double-sided disc which can hold similar amounts of data. Both are aimed primarily at the video replay market, where they offer a cheap (to produce), compact and lightweight alternative to the videocassette. But they could also store very high quality audio. First however, the consumer electronics industry has to decide whether it again wants to face consumers with confusingly similar rival technologies.
No use showing you our amplifiers – as you can’t listen to this advertisement.

Visit your Electrocompaniet dealer today and experience the real thing.
MICHELL ORBE-IT!
It costs £1950, looks stunning and plays analogue records in an almost unsurpassed way! Yes, J.A. Michell Engineering have introduced a new turntable that takes over from the Gyrodec as their top deck. The Orbe features two acrylic bases for improved vibration immunity, a 60mm thick carbon-loaded acrylic platter, and the Gyrodec's Papst motor in a totally isolated 2.5kg machined brass and aluminium housing.

The Orbe is finished in black and clear acrylic with a black subchassis, and comes with Michell's QC power supply as standard, as well as Gyro-style drop-in armboards. There's even an optional motor pulley available that provides a 78rpm facility! Gyrodec fans need not dismay, for it continues in production, now in its fourteenth year.

For an exclusive review of the Michell Orbe, see page 18 of this month’s issue. It can also be seen at the Bristol Show in Room 306.

J.A. Michell Engineering Ltd.,
2 Theobald Street,
Borehamwood,
Herts.
Tel: 0181 953 0771

WAKONDA HAS BRILLIANT FUTURE!
Linn's new Wakonda preamp continues their passion for flexibility, future-proofing and multi-room systems. Designed to accept 'Sneaky' modules facilitating expansion at a later date, tuner, line driver or line receiver modules can be subsequently added. Linn claim that the Wakonda "outperforms much more costly preamplifiers". It is priced at £524 for the line version, and £593 for the phono version.

Linn have also introduced what they describe as "the world's first universal hi-fi power supply", modestly dubbed the "Brilliant". Featuring switch mode technology, it is designed to replace conventional transformer-based power supplies used in Linn products such as the Wakonda and Kaim preamplifiers, Kremlin tuner and Karik/Numerik CD player.

The Brilliant is claimed to yield "vastly improved sound quality", thanks to its better immunity from the mains supply, reduced interference and noise, superior energy efficiency and improved electro-magnetic compatibility. If it effects anything like the change that the Lingo had on the LP12, Linn could be onto another winner.

As a retrofittable upgrade available through Linn dealers, the Brilliant costs £289 including VAT.

Linn Products,
Floors Road,
Waterfoot,
Glasgow G76 0EP.
Tel: 041 644 5111

EPOS STEP UP THE PACE
Epos Acoustics aren't quite the most prolific UK manufacturer when it comes to new models, so it's always an event when they launch a new loudspeaker! The three-way ES25 is said to be a "prestige floorstander", designed to complement existing models (all two of them) in the range. At £1505 it comes handsomely finished in real wood veneer.

Claimed to be suited to amplifiers rated between 40 and 200 watts, it seems the new speaker has been designed to go loud, having an above average 88dB sensitivity. The Epos ES25s are on demonstration now at dealers nationwide.

Epos Acoustics,
3 Ridgway, Havant,
Hampshire. PO9 1JS
Tel: 0705 407722
In the shaky surroundings of old Pompeii, the New TEAC T-1 CD Transport would still have delivered the goods.

The T-1 places the acclaimed vibration-free VRDS mechanism within reach of those looking for the cost effective path to CD upgrades.

What sets the VRDS mechanism apart from standard CD players is its ability to reduce vibration induced in the spinning disc.

As the diagram on the right shows, a normal CD transport of the type used in budget and high end players alike, only clamps the CD at its centre.

As the disc itself is rotating at high speed it oscillates and vibrates making it difficult for the pickup lens to track the minute pits on the CD surface with the necessary accuracy.

Much of the information available may be read incorrectly or in a corrupt form, contributing greatly to distortion within the signal that is fed to the DAC.

The VRDS mechanism significantly reduces this effect by clamping the whole width of the disc thus reducing the vibration that causes jitter.

This all adds up to a Transport that does the job of retrieving information better than any other comparable drive on the market, providing your DAC with the most accurate signal possible.

Because the T-1 does give you one of the best mechanisms in the world, you can buy in confidence knowing that you have the perfect source for any DAC upgrade, now or in the future.

If it was available to the ancient Romans they would probably still be using it now - in spite of earthquakes!

TEAC
VRDS

TEAC 5 Marlin House, The Croxley Centre, Watford, Herts WD1 8YA TEL: 0923 819630 FAX: 0923 236290
AUDIOVECTOR PLOT A NEW DIRECTION
Danish manufacturer Audiovector has announced a new £3000 loudspeaker, the Audiovector 6. Finished in piano black, the 115cm high 6 weighs no less than 57kg and boasts super high 92.5dB efficiency, thanks to its modern Kevlar drivers. It is claimed to handle, "fast, powerful and very extended musical signals accurately".

The rest of the range demonstrates a similar concern with efficiency, using modern drive unit technology, and the £1200 model 3x is said to have particularly easy load characteristics, making it especially suited to modestly powered valve amplifiers. The range starts at around £600 for the Audiovector 1x.

UK distributors:
The Chord Company,
30a Sarum Business Park,
Portway,
Salisbury,
Wils SP4 6EA.
Tel: 0722 331674

CHORD COMPANY'S FLAT RESPONSE
The Chord Company have announced a range of loudspeaker cables comprising Flatline Gold, Flatline Twin and Blue Heaven. At £8.50, £15.50 and £58.00 per metre respectively, coming in customer specified lengths terminated or unterminated, there should be something to suit many audiophiles. Distinguished by its ultra-thin, light profile, Flatline will find itself popular in "real world" environments such as living rooms which require cabling to be inconspicuous. And if the silver-plated copper Blue Heaven 'speaker cable sounds anything like its interconnect brother, then £1,182 for a 10 metre stereo pair may just be worth it after all!

The Chord Company,
30a Sarum Business Park,
Portway,
Salisbury,
Wils SP4 6EA.
Tel: 0722 331674

VDH IN AFFORDABLE CABLE SHOCK
Van den Hul have released a surprisingly affordable set of silver plated copper interconnects, claimed to "dramatically improve the sound" of audio systems. The VDH D-102 V costs £45.99 for a 1.2 metre stereo pair, and boasts silver-coated OFC copper conductors and braiding, plus claimed "extremely high quality RF shielding".

Van den Hul,
Unit 12,
6 Wadsworth Road,
Perivale,
Middx UB6 7JJ.
Tel: 0181 810 9388

AUDIOLAB LAUNCH A NEW PREAMPLIFIER
One of the reasons for Audiolab's success has been its evolutionary approach to product design, meaning equipment is constantly improved and seldom replaced.

And so the launch of a completely new model, the 8000Q preamplifier comes as something of a surprise. At £990.90 it's Audiolab's top preamp, boasting pure direct coupled design with no capacitors in the signal or feedback path. Resultantly, it's claimed that the sound is pure, with "nothing added and nothing taken away".

Interestingly, the 8000Q gets a more sophisticated user interface, with complex control logic incorporating automatic muting and remote control, including a motorised volume control. It also retains the flexibility of Audiolab's basic preamp, the 8000C, featuring 6 line inputs, 3 tape inputs and a direct coupled headphone amplifier.

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What Hi Fi praised the beautiful build, detailed performance and solid bass. Hi Fi Choice noted the warmth and grace of the sound. Hi Fi News found the treble "breathtaking", with a tight bass and a midrange which positively caresses the human voice". And Dominic Baker in Hi Fi World summed up an enthusiastic review with the words "The Callas offer a winning combination".

If this sounds like your ideal loudspeaker, phone or write for the inside story on the Callas and the complete range of solid wood Opera loudspeakers.

fullers audio 01702 612116
20 Tunbridge Road, Southend-on-Sea, Essex SS2 6LT
Noel Keywood and David Price ask whether Linn's Mimik CD player sounds fast enough to bring a smile to the face of Linnies.

Linn won themselves many friends in the 1980s for their denunciation of Compact Disc. Shy, retiring Linn boss Ivor Tiefenbrun found himself speaking up for legions of vinyl fans who wouldn't buy Philips' claim that CD gave 'pure, perfect sound'. But commercial logic eventually meant that Linn themselves had to produce a range of silver disc players, of which the £800 Mimik is now the cheapest.

Continuing their time-honoured tradition of small, discreet dark grey boxes, Linn's baby player looks unprepossessing. Barely longer than a couple of CD jewelcases, and seemingly not much heavier, it's obvious that it takes no aesthetic cues from its monster Japanese rivals.

Despite its lack of bulk and weight, the Mimik exudes a feeling of quality from the moment it's powered up. The row of six buttons on the left rather cleverly provide all the functions you'll need in daily use. Aside from the standard transport controls, various combinations will bring track search, programme display and a rather interesting digital repeat function.

Although Japanese-style combination button pressing is an ergonomic nightmare, with the Linn the process is a breeze.

The CD drawer moves in and out smoothly, but its flimsy build
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Renaissance - affordable High-End reborn

dpa Digital Ltd., 7&8 Willowbrook Lab Units, Crickhowell Rd., St Mellons, Cardiff, Wales CF3 0EF
Tel: (01222) 795621 Fax: (01222) 794267
misrepresents the quality of engineering inside. The control buttons are tactile and positive in use, reminiscent of the switchgear in high quality motor cars. The Mimik confines itself to track and index number display, by soothing green LEDs which default to "-" whilst playing unless told otherwise. Track access is quick and the player is quiet in use. Inside the player, the Mimik shows its engineering pedigree with high quality surface mount components, and a Crystal Semiconductors CS4328 1 Bit Delta-Sigma DAC.

NOEL SAYS
Mimik has a highly individual presentation that emphasises timing. This focus gives transients hair-trigger speed, bringing impressive perceived control, temporal order and tightness of rhythm to complex Latin American percusions that form Songhai 2, for example. The crack of striker against triangle, of stick against cymbal, was almost ferocious; percussion took on a more speedy, challenging presence than most players manage.

Much the same presentation brought real bite to strummed chords from Steve Earle's steel guitar at the start of 'Guitar Town'. Vivid as this was, I also know that those strings have a characteristic twang that seemed weak from the Mimik, and that Earle's Southern drawl has more character than I seemed to be hearing. As the drum kit kicked in, a hiss from the damped cymbals stabbed at my ears. Was this really 'Guitar Town'?

This track and many others from Earle has enormous treble energy that pushes many systems into embarrassing behaviour. I found the Mimik focussed on transients with rare skill, but it could make guitar strings sound somewhat cold and hard.

Across a wide range of music I became aware that the Mimik favours rich, smooth recordings, bringing temporal verve and control to them. On many bright CD recordings though, it turned from saint to sinner. Whilst Songhai 2 really cracked along, bass lines were a little suppressed and the instruments cold and a little characterless in nature; it was difficult to tell brass from steel.

Hideko Udagawa's solo violin attained shimmering presence between the speakers, if not quite the body and character it exhibits on some systems. The Mimik possessed very strong projection here, although the sound of the bowed strings had more bite than usual. It was interesting to hear the challenge of the horns on Wagner's Rienzi, the vigour of the strings and the sheer orchestral pace this player brought to the Philharmonia, conducted by Otto Klempeter. It seemed better suited to the mood of the piece than I'd expected. NK

DAVID SAYS
In our super-smooth reference system with a parallel single-ended tube amp and the ever-polite KEF Reference, Series 2s, the odds were stacked in the baby Linn's favour.

The first track I put on was Primal Scream's 'Rocks', which has a processed, plastic quality that trips up also-ran players, but the Linn kept a grip on everything. Kick drums were extremely tight and fairly weighty, their interaction with the rest of the kit and the bass guitar well conveyed.

Moving on to Oasis' sublime 'Slide Away' the Mimik again impressed, carrying off the main guitar riff with spirit, capturing its epic feel, reminiscent of Hendrix's rendition of 'All Along the Watchtower'. Whilst the timing was spot on and the whole acoustic imparted with a sense of precision and grip, I started to identify Noel's criticisms of the player. Guitarists tended to sound tonally flat. Were they miked up through valve amps or hard sounding Carlsbros? Sadly, the Mimik was too dry to tell.

The baby Linn continued in this vein with electronic music, capturing the sonority of the mid-Eighties digital synths on New Order's 'Vanishing Point'. In the face of competing rhythm patterns and synthetic electronic sounds with immense attack transients, the Mimik hung on tenaciously, sounding grippy and confident.

At this point I moved over to a reference Audiolab transport and DPA Enlightenment convertor. As expected at twice the price of the Linn, it greeted me with a brighter, more vibrant acoustic and far more natural sounding rhythms. It became clear that the Mimik's timing was both super-tight and unnatural at the same time. That's not a contradiction in terms - it seems to imbue everything with its interpretation of how rhythms should be played, which is thoroughly impressive but not strictly accurate.

Lou Donaldson's 'Alligator Bogaloo' threw more light on this. A classic Blue Note analogue recording made back in 1967, the playing is beautifully supple, oozing the warm studio vibe from the first bar of the title track. The DPA was fantastically fluid, approaching the standards set by Linn's Sondek turntable, which has given the most musical rendition of this piece I've heard to date. But the Linn CD player went the other way, sucking out tonal colour and investing rhythms with a mechanical, metronomic feel at odds with the looseness of the playing.

Therein lies the key to the Mimik. It's a good player by any standards, but works best on certain types of music. It has its own views on how rhythm should be conveyed which I found impressive, if a touch robotic. Tonally, it verges on hardness, but this can be assuaged by the right choice of partnering equipment. So the verdict is, as always, try before you buy! If it's musicality and warmth you're after, Linn still offer better performance for the money in the guise of their venerable LP12 turntable. Perhaps Ivor was right all along.

LINN MIMIK
£798
Linn Products,
Floors Road, Waterfoot.
Glasgow G76 0EP
Tel: 041 644 5111

"Percussion took on a more speedy and challenging presence than most players manage."

Measured Performance see p105-111
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Audiophile - January 1994

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Music Of The Spheres

Eric Braithwaite finds Michell's new Orbe turntable a legend from the moment of its inception.
N

ever say this magazine doesn’t keep its promises. The ink was barely dry on the March issue and a reader’s plea not to abandon vinyl, when Michell Engineering announced a new ‘high end’ turntable. It barely had a name - it has now been christened ‘The Orbe’ - before it was collared for review.

I’ve always rated the Gyrodec I’ve owned for years among the best of turntables, but to avoid accusations of partisanship, please remember it was another reviewer in another magazine who recently called it “the most desirable deck below £1500.” The Orbe just has to be the most desirable deck for £2000. Or more precisely, £1950 including the same QC power supply that suddenly took the Gyrodec into another league. That’s the conclusion over with. Now let’s put the horse and cart the right way round.

Anyone who thinks vinyl belongs in the horse-drawn carriage days just hasn’t been listening attentively. Splashing out on an SME V arm and an Ortofon MC7500 (each costing the same as the turntable, given a few quid either side) and the new Michell takes vinyl out of the blacksmith’s right into Ferrari’s new state-of-the-art racing stable. One for New Zealand rugby fans, dressed all in black, it possesses a dusky, brooding, purposeful elegance.

This Darth Vader of record decks uses the same superbly machined bearing, cast sub-chassis, springs and tubular spring covers as the Gyro, but all anodised black. The sub-chassis is now damped by a putty-like compound, derived from some arcane use in telecommunications. Gone however are those hypnotic strobing weights, held the three cone feet and three tiny PTFE plates on which three spikes set into the bottom of a second clear acrylic base - which supports the sprung chassis holding the bearing and arm-mounting outrigger - sit. These are adjustable for levelling, leaving a just-visible 2mm gap between the two. The Orbe is actually supplied in its component parts, but the setting-up takes only a few minutes. The final refinement is a new clamp, which screws onto a two-start threaded spindle. Designed to clamp warped records down like a limpet, it works a treat.

It wasn’t just that the Rosencrantz Sonatas sat on the platter more firmly than before, but the SME V, MC7500 and Orbe turned out the true high-end trick of showing every subtlety and nuance of playing in these weird and virtuoso pieces - not only of the violin but the tiniest semi-quaver from the relatively subdued organ continuo. The Orbe not only reproduces the dynamics of instruments, but plays them in perfect consonance with each other. On a Dave Grusin LP, it suddenly became obvious that what normally is a tinkling sound on the right somewhere was actually finger-cymbals and each finger was practically visible. No matter whether there was a studio-full of percussion, a bass and a piano playing together, each individual melodic line, rhythm and beat was absolutely pristine in its clarity and in precise musical proportion.

Said a fellow listener of the Tchaikovsky 1812 and Capriccio Italian, “it sounds like a brass band!” It was indeed as though the Grenadier Guards had marched off the vinyl into the living room, such was its life-size scale, with tuba roaring and trumpets and trombones blessed with an attack faster than a wing three-quarter. Yet while the bass drums and timps were stinging in their immediacy, both first and second violins were clearly distinguishable and sweet. It used to be said of one turntable - rather exaggeratedly - you could tell how many players were sharing a desk. In this case, it’s probably true.

The physical perspective of a recording was obvious, not just in the rock-solid positioning of players, but in the ambient detail that placed even tiny echoes off studio walls. On Art Blakey’s The African Beat it defined the physical shape of everything from flute to deep - astonishingly deep! - tom-toms to the smallest flutter of fingers on a bongo. This hitherto has been where only the SME 30 has excelled.

This first production model has already been snapped up by a Belgian dealer. Suffice to say that in the same proportion the Gyropower QC almost unimaginably tightened up the timing and detail of the Gyrodec, the Orbe leaps a long drop-kick ahead of the Gyro. Fast? It accelerates like a Ferrari, alright. Detailed? It would have taken a prisoner in the Napoleonic Wars a decade to put as much into a piece of scrimshaw work. Tonally it is meticulously ‘right’ with crisp sheer treble and clean deep bass. And it’s so beautifully finished you’d expect it to pop out of the back of a Rolls instead of the cocktail cabinet.

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VINYL REVIVAL

David Price investigates the worldwide revival in vinyl, from Japan to Britain to the U.S.A. The plain truth is, the LP just won't die.

Five years ago you couldn't buy a new LP record in Japan for love nor money. The Japanese, champions of technological change, seemed to have deemed it an expired, redundant format. Living and working there at the time, it was a shock realisation to me, as I'd never before experienced acute vinyl starvation.

Returning to the UK on holiday I'd notice a dwindling selection of records in High Street 'record' shops, so I found myself buying LPs in the fear that I'd never be able to get them again.

Then something strange happened. It was spring 1992 in Tokyo when I spotted some LP-shaped objects in a downtown music retailer. I thought they were LaserDiscs at first, but priced at 3000 Yen (£12 at the time), they were far too cheap. "My God, they're records!" True enough, the Beatles entire back catalogue had just been reissued on vinyl. Then Led Zeppelin albums started appearing, then Stones' repressings, then classic Japanese Blue Note reissues.

Back in the UK 'music software' retailers continued their love affair with CD. It doesn't take an MBA in retail management to know why. It was a unique opportunity for an industry to sell the same old wares back to the public with enhanced profit margins. Not only that, but the new format was more space efficient, making it easier for shops to handle. If God had sent the music business a gift, he couldn't have done better than CD.

Misleading claims about sound quality and durability were put aside and record companies, aided by certain hi-fi and music magazines, set about telling the public what was best for them. What angered audiophiles and record fans alike wasn't so much the hype about CD, a constant source of hilarity to many of us, but the way it threatened our favourite format. In Japan, retailers seemed happy to let the re-emerging vinyl LP coexist with CD, to cater for a small but committed audience. But in the UK, major record companies and retailers, often linked (e.g. EMI and HMV), were continuing to withdraw their support for the format, pleading 'lack of demand' as the reason. In the best traditions of circular logic, if it's not there, there can't be a demand for it, can there?

But recently, British record buyers
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may have noticed renewed interest in vinyl. Investigating an astonishing claim by Tower Records in a radio advertisement that "the LP is dead", we were told by an embarrassed UK executive and in fact one of their branches, Tower Kingston, was doing a thriving business in black discs. If you’re expecting records to be back on the shelves of Woofles as well by the summer, you’ll be disappointed - CD will remain the standard music carrier for the foreseeable future.

Nowadays, vinyl is becoming something of a cult item. This new trend in LP sales is borne out by recent figures. A British Phonographic Industry survey of trade deliveries in July/September 1994 shows that LPs rose by 14.2% and singles by 9.8% year on year. Although LP’s market share remains small at 3.2%, compared to twenty times that for CD and ten for cassette, Martin Talbot of Musicweek called the figures “good news for anyone in the business of manufacturing vinyl and turntables”.

Although this won’t set the world alight, it’s proof positive that those who speak of the death of vinyl have fallen for their own propaganda. Indeed, it’s likely that vinyl sales have reached their bottom point, and will continue to show what the BPI calls “firm residual demand”.

What’s more, similar things are happening in the States. According to the Recording Industry Association of America, vinyl sales for the first half of 1994 increased by a staggering 80% over the same period of the previous year! This has led to a spate of dramatic headlines such as The New York Times’ “Music Lovers are Voting for Vinyl!”. In truth, what the headline omits to say is that unit sales are up 400,000 to just 900,000 - peanuts against CD’s 277,000,000 units!

Perhaps this revival has been catalysed by the recent spate of US musicians found eulogising over the joys of black plastic. Pearl Jam are a case in point. Vitalogy, their latest album, was released on vinyl two weeks before the CD version. It notched up 35,000 sales and got to number 55 in the Billboard chart on the strength of vinyl sales alone. Recent albums by Nirvana, Sonic Youth and Johnnie Cash have gone the same way and musicians such as Bob Mould and Neil Young are never short of something to say on the delights of the LP record.

In Britain, virtually all new dance, indie and rock releases are available on black plastic, at least in limited edition form, often with extra tracks special to the LP version. From Primal Scream to Paul Weller, The Orb to Orbital, British music industry figures have also taken it upon themselves to talk up vinyl’s appeal, often in a highly romanticised way. Factory Too Records supremo Tony Wilson confessed “the whole delight of being in the music business is the smell of the lacquers”.

But vinyl isn’t just about nostalgia; there’s some sensible commerce in here too. Bob Bailey, Production Manager at EMI’s Hayes pressing plant reported that he’d seen “a great deal of activity in the smaller companies”, largely due to the fact that at just 40p a copy for a batch of 500-1000, vinyl is still “an economical package in small runs.”

One of vinyl’s greatest comebacks has been in the jazz scene. Towards the end of the 1980s, when many regarded CD as the salvation of humankind, Blue Note Records deleted their entire vinyl catalogue, provoking collective gasps from jazz lovers around the world. But recently, Blue Note UK launched their ‘Connoisseur Series’ of reissues. Beautifully pressed on heavy 180 gram vinyl, they have proved so successful that many have been exported to the States, in turn swaying Blue Note US to start repressing vinyl.

In the sphere of dance music, vinyl has become more than just a format, it’s now an icon with what’s been called a “mythological tradition”. Techno music, a veritable breeding ground for equipment freaks, continues its love affair with anything analogue. All promotional copies of new dance tracks are circulated to DJs on 12 inchers and, according to Adrians, a specialist independent retailer, over 95% of dance music is bought on black plastic. Bob Bailey admitted that EMI’s Hayes pressing plant is now pressing 6,750,000 records annually, of which about 90% are 12 inch singles.

Assessing vinyl’s place in the great scheme of things can’t be done by looking at naked statistics. It’s finding a place for itself as a specialised music medium in a number of different contexts. Whether you’d want to call them ‘subcultures’ or ‘niche markets’ isn’t really important. Vinyl’s appeal spans national and cultural boundaries, giving as much pleasure to those who grew up listening to The Aphex Twin on a Technics SL1210 as Sonny Rollins on a Garrard 401. That has to make vinyl something very special indeed.
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Ortofon (UK) Limited, Chiltern Hill, Chalfont St Peter, Bucks SL9 9UG,
Tel: 0753 889949.
I've always had time for Denon CD players. Smooth and civilised, they're a useful cut above the average. Alpha processing, seen previously only on top models, attempts to create "near 20-bit quality" from standard 16 bit CDs, supposedly lessening harshness endemic to silver discs.

This it did, but I wondered whether Denon had gone too far. There's smooth and there's dull - this player tripped the borderline between the two. Our measurements, made before listening tests gave warning. The frequency response trace plunged downward off the analyser screen, looking like a sales graph for ice cubes in Antarctica. Whoops!

The Denon paints an invitingly expansive, smooth sounding picture of performers on the soundstage. Violins of the Philharmonia playing Wagner's Rienzi had less edginess than usual. Horns seemed more laconic than urgent; there was a lack of real rasp and a tonal colour that wasn't especially reminiscent of brass, but then CD generally isn't too good in this department. Timpani thundered, bringing weight and gravitas to the performance; in this area - bass power - the Denon really had it.

But as the going got tough, with the full weight and complexity of the orchestra coming into play, I felt that the Denon was blurring the picture. The steel strings of Buddy Guy's guitar lacked bite and as the band got moving on 'She's Nineteen Years Old' what should have been a clear lead line became submerged in the melee.

In keeping with their late night milieu, Eddie Reader's recordings, even in her Fairground Attraction days, have always been easy on the ear. I guessed the warmth of the Denon would take the effect too far and this is rather how it turned out, the performance coming across as muggy and ill-defined. The thrum of double bass and the sense of atmosphere were nicely captured, but temporal precision and insight were mediocre.

Whilst it was easy to catch the Denon out, I could still (literally!) warm to it. John Lee Hooker's 'Boom Boom' came in with real weight and it stayed smooth and easy on the ear. Bright recordings were usefully balanced and smoothed by the DCD-1015 - a useful property with CD.

Jamiroquai's 'Return of the Space Cowboy' proved illuminating. The Denon again pumped out full, rich basslines which managed to stop and start in a controlled fashion, but at the other extreme, cymbals gained a slightly splashy quality reminiscent of other budget Japanese players.

The Denon always came across as having a great deal of clarity, although in truth it wasn't especially detailed. Morrissey's 'Piccadilly Palare' showed that it could be thoroughly engaging, combining good dynamics with competence in the timing department. Bass drums were also surprisingly weighty and percussive for a player of this price.

I ran the Denon with smooth KEF Reference Series 2 loudspeakers and both solid-state and valve amplifiers. Matched with a hard sounding transistor amp and bright loudspeakers, Denon's new DCD-1015 CD player has just the right balance and presentation to provide a useful tonic. So although not a player for all seasons, it has some great strengths. If you want a really smooth presentation from CD with good stereo staging and an impressively full bodied sound, check it out.

Denon DCD-1015
Hayden Laboratories Ltd., Hayden House, Chiltern Hill, Chalfont St. Peter, Bucks. SL9 9UG.
Tel: 0753 888447

£349.99
Heybrook have just released their new floorstanding Heystak loudspeakers. Do they have a sunny future, Lionel Coleman asks!
Heybrook are the latest British entrant to the floorstanding loudspeaker market. The £499 Heystak is a response to demand for a floorstanding version of their HBI model, now in its fourteenth year of production. Heybrook see the Heystak first and foremost as a value-for-money product, designed to sound "involving" in a wide range of systems.

Certainly multi-driver loudspeakers can produce copious bass output, making the 90cm tall Heystaks likely, both sonically and physically, to be destined for larger listening rooms. Their complement of drivers comprises no less than three 120mm bass/mid units, with a 25mm fabric soft dome tweeter sandwiched between the top two. The bottom driver, complete with full magnet assembly, is left disconnected to augment the bass response by acting as a passive part.

One of the advantages of floorstanders is not having to buy stands, and this holds true for the Heystaks which come with their own, appropriate considering Heybrook's good reputation in this area. Square tubular steel frames screwed to the bases serve as a secure and stable mounting for the substantial floor spikes. One minor niggle is that the bi-wire terminals are mounted at the top of the back panel, making it difficult to tuck cables discretely out of sight.

After thorough running in, it was instantly apparent that the Heystaks have a big, weighty sound. My expectation of plentiful low bass was realised. The Heystaks are real sluggers, a characteristic that will win them many friends. Tina Turner's 'Steamy' with a great sense of occasion these speakers haven't got a lot of who want to be thoroughly pummeled, almost powerful enough to drive me backwards into the settee. For those notes than any sense of space.

The soundstage appeared behind the floorstanding version of their HB I was just that - it kicked. The sound was full without being overpowering. Although deliciously dynamic they're a wee bit ponderous in comparison to lighter, tighter balanced speakers. However, altering speaker position relative to the rear wall, my own preference being into the room by at least half a metre, tightened things up.

The overall tonal balance of the Heystaks depends on seating height. On the tweeter axis, which means sitting low, it has a fairly natural balance. Just above they go soft and warm, and higher up to standing, treble becomes altogether more obvious. But overall they're mellow speakers, albeit with a touch of hardness or steeliness in the upper mid-band/lower treble that pushed cymbals and vocals forward a little, giving them a solid outline and presence. Our measurements clearly show this effect as a low peak in the frequency response.

Stereo imaging and sound staging were good - respectable but unexceptional. There was some lack of midband insight too, where the Heystaks exchange analysis for easiness. I've heard more insightful loudspeakers, but often they're less easy on the ear. The soundstage appeared behind the plane of the 'speakers with a truly expansive presentation, possibly more to do with the foundation of the bass notes than any sense of space.

For rock music these aren't the fastest 'speakers, but "oomph" was there by virtue of fine low bass dynamics, bass guitar lines being easy to follow. Power chords were just that, although I'd have preferred more attack. Cymbals were tonally well differentiated even if the cutting edges of their crashes were slightly blunted. The location of instruments from further back in the mix, like castanets on Bryan Adams' 'Run to you', could have been more precise.

On the spoken word via Radio 4, normally lightweight male voices assumed the tone of continuity announcers. Sibilance wasn't a problem but there was a slight "breathy" effect. Both these traits meant that female voices became Kathleen Turner-esque, not necessarily a bad thing when you consider the effect her voice is supposed to have!

That old favourite war-horse of the organ repertoire was next. With Widor's toccata the Heybrooks excelled, with as much scale and drama as the neighbours could stand. Encouraged, I tried Saint-Saens 3rd (Organ) played by the BPO/Levine on DG. The speakers proved capable of creating the illusion of an orchestra, but the vocal anomalies noted earlier affected the tone of strings. Curtained stereo depth also gave the impression that I was sitting quite a long way back in the concert hall.

Overall, the Heystaks offer a full toned, unfatiguing sound with body and warmth above precision and speed. Their plentiful deep bass suited organ or full orchestral music and brought real thunder to rock, yet an absence of boom meant that huge listening rooms wouldn't be essential. They displayed commendable efficiency, so a powerful amplifier isn't essential.

The Heybrook Heystaks will find many friends thanks to their smooth yet powerful presentation. They're the complete opposite of the shrill, reedy sounding type of 'hi-fi' speaker. Bass freaks in particular will love them!

"With Widor's Toccata, the Heybrooks excelled, with as much scale and drama as the neighbours could stand."

---

**Heybrook Heystaks**

**Heybrook Hi-Fi Ltd., Estover Industrial Estate, Plymouth, PL6 7PL**

Tel: 0752 731313

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<thead>
<tr>
<th>Model</th>
<th>Sensitivity</th>
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<td>CF-1</td>
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loudspeaker, good enough to walk away with sales Mission justly regard as theirs by right these days. Yes, the Coda 7 is that good.

At £129, it’s moving into a fierce market where the £129.90 Mission 731 (the latest replacement for the 760) reigns supreme, albeit by a whisker. Both products are proof positive that the British hi-fi industry can make superb value for money products to face off any competition the world can offer.

For their price, both ‘speakers are beautifully built and finished - even before you plug them in you can’t help thinking you’re getting a lot for your money. Of the two, I’d say the Mission is better, with nicely turned cabinets and a general air of solidity. Rap the side of the 731 and you’ll hear a dull thud, whereas the Coda 7 has a hollower ring, suggesting lighter construction.

As soon as our Garrard 401/SME 312/Ortofon MC25 and Audiolab 8000A system was powered up, it was clear that the 731 and Coda 7 had their own highly individual ways of doing things. Kicking off with the Missions, as the opening bars of Corduroy’s ‘Don’t Wait for Monday’ poured forth, I was struck by the 731’s upfront sound. With powerful bass and crisp treble they instantly impressed. Indeed they sounded a better than their diminutive stature would suggest.

Treble was bright with a touch of coarseness, more than I remember from the 760i, investing a good measure of gusto. There was bass aplenty, which although not particularly fast or accurate, further contributed to their larger than life sound.

The Missions really got the basics right, giving a brusque, bold picture of musical goings on. Although not particularly detailed, they were revealing enough to tell whether the drummer was hitting or brushing cymbals, or what was happening on Corduroy’s vocal sound. Aided by their forward, crisp treble which emphasised leading edges of percussive instruments, timing was the 731’s forte. In conjunction with an apparently dynamic sound, this made for plenty of enjoyment.

The KEF Coda 7s sounded less impressive, with an emphatic midrange and smoother treble. Not so upfront, they failed to engender the sense of surprise the 731s had. But it soon became evident that the KEFs were playing music better. With more rhythmic push they were better able to impart music’s emotion and drama. Although smoother, they also proved more detailed, throwing out extra strands of percussion and conveying a better sense of space around instruments.

Dynamically, the two differed significantly. Run-of-the-mill compressed pop recordings were delivered vivaciously by the Missions, which appeared fast and dynamic. But the heavily modulated bass solo in Jamiroquai’s ‘Return of the Space Cowboy’ proved too much for them. As the bassist mashed the fretboard, they sat on crescendos, stripping the music of its power. In contrast the KEFs hung on, getting louder with little distress.

Although the 731s had more upper bass, it’s always quality not quantity that counts. United Future Organisation’s ‘United Future Airlines’ threw more light on the bassist’s finger movements. After listening to the KEFs, it was obvious that the Missions were imbuing everything they touched with the same tonal colour, which was rather grey and uninviting. With the KEFs instruments retained more of their original timbre and feel - you could almost hear the vintage of that Stratocaster.

Both loudspeakers imaged extremely well considering their modest cost, providing a wide open soundstage that was a pleasure to behold. The KEFs proved better than the Missions in this respect, the latter suffering some boxiness particularly noticeable on drums. Augustus Pablo’s ‘Rockers comes East’ starts with a crashing snare roll that struggled out of the 731’s box, whereas the Coda 7s projected it with ease.

I found this comparison an interesting one. Whilst I really enjoyed Mission’s earlier 760 loudspeaker, I can’t say the same of the 731. Doubtless as Mission engineers intended, it’s sounds truly ‘impressive’, but lacks the charm and sophistication of their previous super-mini, the 760. This is where the new KEF Coda steps in. For all its faults it has a damn good go at playing music in an involving and entertaining manner.

Mission 731 £129.90
Mission Electronics Tel: 0480 451777

KEF Coda 7 £129
KEF Audio Ltd. Tel: 0622 672261

Measured Performance see p105-111
We wanted to find out just what's available to prospective purchasers of £250 amplifiers. To get a perspective, we lined up the latest versions of some old HI-FI WORLD favourites, and got a few surprises - not least about the quality of sound possible at this modest price point. This, allied to high power outputs with excellent load driving ability, makes quality modern budget amplifiers fine all-round packages. Each member of the test group, comprising Arcam's £229.90 Alpha 5, Pioneer's £229.95 A300X, NAD's £239 304, Aura's £279 VA-80 and the £259 Pro-Ject 7, proved this in some respect.
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0850 230339
The amplifiers were used for an extended period with both Compact Disc and vinyl sources, driving speakers as diverse as KEF Reference Series 2s, our own KLS3 carbon-fibre coned monitors and Mission 733 floorstanders.

Arcam’s Alpha 5 exudes quality, with switches that work smoothly and decent defeatable tone controls, sensibly subtle in effect. With six inputs, including phono (moving magnet) and outputs for two pairs of speakers, Arcam appreciate that in the real world, budget amplifiers need to serve a number of purposes. Better still, they’ve not let flexibility compromise sound, nor have they pandered to gaudiness in their provision of these facilities.

Unfortunately the same couldn’t be said of the Pioneer A300X, which falls prey to Acute Japanese Styling Syndrome. The Japanese have a saying, “the nail that sticks out must be hammered back in”. Perhaps this explains why all Nipponese hi-fi tends to be square, and painted black replete with tacky gold legends. We’ve only the Lord to thank that UK versions are devoid of the fake wood end cappings that adorn Japanese separates elsewhere! Aesthetics aside, it’s well put together, with six inputs including a moving magnet phono stage, and useful independent listen and record selectors.

The 304 continues NAD’s corporate look - not terribly awe inspiring - but picking up the 304 makes you forget such things. It’s heavy, doubtless due to its mains transformer which speaks volumes about its musical presentation before its power LED even so much as blinks. The 304 features the ubiquitous ‘soft clipping’ circuit, a great idea at parties, but it should normally be switched out as it can harden the sound.

The Pro-ject 7 looks as oddball as ever, its finish a tad shoddy compared to the rest of the group - rather ‘cottage industry’. The 7 also boasts a phono stage configurable for MM and MC cartridges, but as it’s done from inside the casing, many will want their dealer to tackle this.

Most expensive of the group is the Aura VA-80, which continues the stripped bare ‘UK audiophile’ tradition. Unfortunately, not one of its six inputs has a phono stage (boo! shame!) and Aura don’t produce an optional phono module. The VA-80 is well finished, but compared to the NAD seems insubstantially built.

LISTENING

Surprisingly, all the amps on test were happy driving the KEF Reference Series 2s, which although efficient, present a very difficult load. Best in this respect was the unimpeachable NAD, which didn’t so much drive them as take them by the neck and shake them! Pioneer, Arcam and Aura all managed high volume levels, and the Pro-ject gave good levels without sounding flustered.

The Arcam is the epitome of ‘impressive’ sound. Whilst the first few minutes of the audition had me thinking it was the best amp of the group, it soon became clear that this wasn’t the case. The bold, brusque sound instantly got feet tapping to Burning Spear’s ‘Fittest of the Fittest’, but not far into the song I found myself losing interest. Basically, it lacks ultimate grip - its voluminous bass fairly sloppily controlled, and treble strong but lacking subtlety. The Arcam’s strengths lay in timing precision and its ability to go loud quickly, giving an insightful rendering of dynamics. But the more I listened, the more its uncouth treble made itself heard, especially with CD. It definitely rewards warming up, exemplified by the Brand New Heavies’ ‘Midnight at the Oasis’, where the Alpha was so bright it almost spat at me until it had been on for a good few hours. If sympathetic ancillaries are used you should be able to sidestep this - certainly the smooth Goldring 1042 cartridge used in our Garrard 401 went a long way to alleviate the problem. Overall, the Arcam never failed to sound engaging and musical, but left me wanting more detail and control.

The Pioneer also boasted a large, positive sound, but with rough edges smoothed out somewhat. More low level detailing came through - I could hear production tricks in Oasis’ ‘Live Forever’ that the Arcam missed. But with this came a slight flattening of dynamics that the Arcam could never be accused of. The A300X had a sweeter upper midband which invested warmth into female vocals, making the Pioneer’s presentation more palatable on a day to day basis. The A300X’s increased control made for a more orderly presentation. On the Burning Spear track, it gave an extremely convincing performance - far tighter than the Arcam. It seemed to pull the listener further into the music as the song progressed, which is just how it...
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Kingsway North,
Warrington.
Tel: 0925 828009
should be. Bass was tight and powerful, and treble was detailed and civilised, but tended towards sterility. Indeed my only criticism of the Pioneer was its propensity to sound 'antisepctic' and lacking in tonal colour.

Reminiscent of earlier classic NAD designs, the 304 was the smoothest amp I'd heard so far. Its beguiling quality meant that you could listen for extended periods at high levels without fatigue. Indeed, the 304 injected smoothness into anything it touched, introducing a slight lower mid bloom that I'd imagine would be just the ticket for thin sounding budget CD players or rough budget cartridges.

One of the NAD's finer qualities was bass, prodigious enough to worry seismologists. Although rather lackadaisical in the timing department, it went down very low. Not the fastest of amps, when the NAD did get hold of a bass line, it steamrollered it out with grin-inducing force that shamed the rest of the group. On phono, things weren't quite so good, the 304 tending to sit on rhythms whilst retaining its attractive tonal palette. Bass lines on Augustus Pablo's 'King Tubby Meets Rockers Uptown' retained their power but lost their swing, stripping the song of its atmosphere. All in all, the NAD deserves careful matching to give of its best.

In the context of our reference system, the Pro-ject exhibited the most grip and control. Although tonally dull, it felt the fastest and most musical of the group. The Pro-ject always got to grips with rhythms, offering the least mechanical rendition of 808 State's 'Nimbus'. As you would expect from a well respected turntable manufacturer, its phono stage is also extremely good, losing little to its line inputs. Jazz also showed its powers of persuasion, the 7 giving the most fluid reading of Herbie Hancock's 'The Prisoner'. Where the Arcam blasted sound at you and the NAD rattled the floorboards, the Pro-ject just played music.

The Aura was the other surprise. Although of modest power output, up on the Czech amp but down on the others, it was superbly grippy. It worked in any system, sounding consistently impressive. It came across as the most tonally neutral of all the amps on audition.

YMO's 'Music Plans' showed the VA-80 to be even more dynamic than the Pro-ject, possibly a function of its brighter tonal balance. It displayed lots of control, allowing notes to start and stop with great speed, and communicated the dynamics of the song in a manner out of step with its modest price tag. Although the Aura couldn't pump current NAD-style, it showed a clean pair of heels in other respects.

**THE VERDICT**

Overall, I found myself splitting the amps into two groups - the good and the great. The Arcam, NAD and Pioneer belong to the former, the Pro-ject and Aura the latter.

The Arcam was an impressive sounding design that was a breeze to live with, packed with useful features and finished superbly, but on balance it didn't endear itself to me. Likewise the NAD, consumately good at some things, could have done with a more rhythmic presentation. The Pioneer almost deserves the 'great' mantle, but sounds a touch too sterile for my tastes - nevertheless it's a highly capable all rounder - ignore at your peril!

And now for the serious kit! For vinyl junkies on a budget, there's only one choice - the Pro-ject 7. Its excellent phono stage would suit bright moving coils like Ortofon's MC15 Super II, but will also work beguilingly well with Compact Disc. But it's an acquired taste, with question marks over its ability to work in a wide range of systems.

This is where the Aura comes in. If you've already got a separate phono stage, the VA-80 is a formidable way to play records. But it will also get the best from anything else you care to connect - indeed it soon found itself working as a reference amp, used to audition other equipment! Although the most expensive of the group, the Aura is still excellent value for money - a testament to how good modern budget transistor amplifiers can be.

Who said budget amplifiers weren't much fun?

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<tr>
<th>Manufacturer</th>
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<tr>
<td>Arcam</td>
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Finally, feast your ears on the new Alpha 5 Plus CD player - quite simply, the best value high performance CD player ever produced by a UK manufacturer. Over the past year the critics have heaped praise on its predecessor, the Alpha 5 CD player, calling it "the player to beat" (What Hi-Fi?) and "standing head and shoulders above the rest" (Hi-Fi News)*. Now, thanks to new master clock circuitry, the 5 Plus sounds even better and once again sets the standards for other CD players to match.

Just listen. Close your eyes, open your mind, and see the light.

*If you already own an Alpha 5 CD player, we'd be happy to update it to full 5 Plus specification. Please call our service department at the number below during office hours for full details and prices.
COGNITIVE DISSONANCE!

It was with sadness that I read your review of Roger Penrose’s latest tome, Shadows of the Mind, in the February DIY Supplement. There are many serious problems with the arguments laid forth by Penrose, many of which appear to be due to a lack of understanding of the basic mechanisms at work in neural systems. His thesis concerning ‘quantum effects’ taking place at the synapse is a case in point. It seems that he misinterpreted the fact that synaptic transmission is quantal (neurotransmitter is released in the form of small packets, each of which causes changes in the post-synaptic ion channels which are quite deterministic) to mean that he could start playing around with the type of quantum stochastic mechanisms which are found when dealing with sub-atomic particles.

Needless to say, this is quite unjustified. Whilst probabilistic mechanisms are almost certainly present in the human brain, there is absolutely no evidence to suggest that this represents anything more than the Gaussian noise found in all macroscopic systems. Events at the synaptic cleft may occur on a small scale relative to everyday experience, but they are still very far removed from the arena of sub-atomic physics.

Unfortunately, it seems that Penrose has fallen prey to the most common trap in the philosophy of consciousness: Cartesian dualism, that old and rather arrogant notion that mind is necessarily separate from matter. Of course, he cannot openly profess belief in such mysticism without being ridiculed, so he introduces it covertly, but the mysticism is still there. We still find ourselves confronted by a black box whose workings are hidden from us.

Now, I am not going to pretend that mechanist philosophy can provide a complete counter-argument to Penrose. Indeed this debate is only taking place because there are large gaps in our knowledge of the systems that produce human thought: we simply don’t have the wherewithal to prove him wrong, and probably won’t have for many years to come. There is, however, a simple and elegant philosophical tool that we should never forget: Occam’s razor. It is simply not necessary to resort to obscure philosophical ramblings in the backwoods of quantum mechanics to explain human thought. All we need is a further elucidation of the deterministic mechanisms which have already been demonstrated so well over the past forty years.

Consciousness is indeed marvellously complex and it will take us a long time to tease out the full wonder of its mechanism. But the progress made in neurosciences over the past half century has been astounding, all of it based firmly on the concept that the mind comprises of a system of interlocking, deterministic mechanisms.

Dr C. King, London.

I think I should comment on some serious misunderstandings of my own viewpoint expressed in Dr King’s letter. It appears that he is confusing the views put forward by Sir John Eccles with my own. I am not arguing that there is anything relevantly quantum mechanical in synaptic transmission. Instead I am suggesting that quantum mechanics (and even a physics beyond standard quantum mechanics) is playing an important role in the controlling activities of microtubules.

There appear to be at least three different ways in which microtubules influence the strengths of...
Finally I must apologise for my insane rantings but then I LIKE VINYL so that's my excuse and I'm sticking to it. Having a shoulder to cry on eases the pain.

Yours desperately seeking vinyl,

P.D. Brackley
Deptford,
London.

It wouldn't be the first time vinyl lovers have been patronised or marginalised in the mass media. Whilst we can shrug it all off with an air of superiority, the problem is that such misinformation actively threatens the survival of our favourite format.

What we all have to do is make it plain to record companies and retailers alike that there is still a demand for black plastic, and that there's money to be made in supporting it. I hope my vinyl feature on page 21 does just that. In the meantime, you can count on everyone here at Hi-fi World to keep vinyl on the map. DP

And, of course, billions of LPs exist in treasured music collections, world wide. That people will continue to want to play them curiously seems to pass ignored. NK

Professor R. Penrose,
Mathematical Institute,
University of Oxford.

Alright, so you can't see what all this has to do with hi-fi! And why did I review the book in the first place? In hi-fi there is little appreciation of the complexities and currently, mysteries, of the human cognitive process. Shadows of the Mind brings us some interesting views to bear on the way the mind may work, even if it doesn’t touch specifically on human cognition. I feel this discussion at least gives us some idea of the magnitude of the problems facing us and why, even today, the world's largest manufacturers still have to resort to subjective listening tests to ultimately validate a sound processing system like PASC and SBM. Only when we finally understand human cognition may we devise tests that truly inform us about sound quality. NK

In your reply to Manolis Kroussaniotakis letter in the January '95 issue, you stated: “We do listen to live music, but this is hardly consequential. The notion that a hi-fi system can be compared to the real thing is a misleading oversimplification.”

I’m afraid I cannot agree with this statement, and was horrified to see it in a hi-fi magazine. I always thought that to strive for realism was the fundamental tenet of hi-fi philosophy - your statement gives the impression that realism is irrelevant.

I would argue that if, for example, a virtuoso performance of an acoustic instrument or a vocal rendition is to be reproduced, then the reproduction should be as realistic as possible to capture the subtle nuances of the performance.

Also, in the situation where motion picture/TV material is being presented, if the reproduction of everyday sounds, (e.g. doors slamming, traffic, voices, etc.) is very realistic and the equivalent acoustic distance is about 3 feet, then it gives a much better sense of involvement in the drama.

This leads to the question, is realism attainable on the domestic scale? Two-loudspeaker intensity stereo has no direct correlation with real experience, but single-

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The writer of the most interesting or funniest letter will receive a choice of either: a free set of Hi-Fi World's silver plated copper interconnect cables, worth £69.95, or a Francinstie CD convertor enhancer worth £150.
Mission's new 733 floorstanding loudspeaker may be little but it's got a large sound, Noel Keywood finds.

A little carpet space and £299.90 is all you'll need for Mission's new 733 floorstanding loudspeakers. I'm sure that space is going to appear in homes all over Britain whilst the said cash sum will disappear from an equal number of bank accounts. Mission know how to engineer an attractive and exciting sounding loudspeaker - the 733 is another example of their abilities in this area.

The black ash veneer cabinets are compact, having a footprint 205mm wide and 300mm deep. Spikes are supplied for firm location, but bi-wiring isn't possible on what's effectively a budget product. Despite this, Mission use an elegant and attractive moulded front panel which holds the two drivers and has an integral port. The bass/midrange unit has a white translucent polypropylene cone and a black rubber roll surround. Above it sits a metal dome tweeter, protected by a fine mesh grille. In an 850mm high cabinet, this assembly makes for a neat if sombre looking product.

Polypropylene is known to provide a smooth sound across the upper midrange, important with strings and vocals. The trade off is a little 'quack' in the sound, especially at high volume levels when cone breakup occurs. On balance though, polypropylene makes for a speaker that's easy to live with and doesn't jar the senses, important over long listening periods.
The Missions were used with an Aura VA-80 amplifier, fed by a Pink Triangle Da Capo/Audiolab transport combination.

The 733 has real get up and go. It's a breathtakingly fast rocker that grabbed my attention from the first few bars of Primal Scream's 'Rocks'. Fulsome, lithe bass lines, a good kick from drums, plus a great sense of midband clarity that has singers out of the mix and into the open, made for a vivid presentation. Soundgarden's 'The Day I Tried to Live' captured it all. The bass intro was powerful, yet the Mission's captured the descent of the bassline deftly, offering a wonderfully ominous introduction that set the scene perfectly for the band's feedback guitars. They cut in hard, raucous and jangling before the lead singer's guttural vocals fought their way out of the increasingly intense wall of sound. Many loudspeakers throw a fit with this sort of material, but the 733s lapped it up.

The Missions reproduced rock wonderfully, with strong dynamic contrasts, a great sense of expression with vocals, and basslines that were generous in level, yet nicely defined in terms of pitch. Light, spry treble complements the speaker's enthusiastic bass, allowing this modestly sized floorstander to develop a big sound in the home.

Precise stereo imaging brought a sense of presence to Eddie Reader's smooth, lilting vocals - her voice hung between the speakers beautifully, clear and believable. The strings of her acoustic guitar were reproduced cleanly and sweetly. Here I was struck by the delicacy of portrayal achieved by these speakers with simple programme material, good detailing contributing much to their captivating sound, richness of timbre shading vocal nuances nicely. Our tests show rising treble from the tweeter but I found it easy on the ear. All the same, the Da Capo and Aura are smoothies. The 733s will not partner a sharp sounding amplifier or CD player well.

First impressions are important, but reviewing has to look at underlying subtleties that emerge over a period of time. Here the 733s showed themselves to be more suited to rock than classical. Down in the lower bass and deep bass regions the speakers are lightly damped, making them quick and vigorous in bass output, but also a little boomy. The sudden entry of cellos and even violins in Rachmaninov's Piano Concerto No.2, Opus 18, had the box adding a distinct whoomph, which I found disconcerting.

The drive units are well enough engineered to give smooth string tone, but on orchestral crescendos I noted muddle setting in. A degree of plastic quack was apparent with violins, plus a little nasality, just enough to add character. These lesser effects weren't really of much consequence under the relentless pressure exerted by rock programme, but classical imposes its own particular requirements, some of which can be peculiarly probing, as I found in this case.

It was those 25Hz heartbeats at the start of Pink Floyd's 'Dark Side of the Moon' that showed the 733's bass/midrange unit could reach its end stops at relatively low volume and this, I suspect, is why orchestral climaxes in Rimsky Korsakov's Sherherazade, backed by powerful timpany, pushed the 733s into muddle. Their very enthusiasm tempts you to turn up the volume, but this can easily push the speakers past orderliness. Headbangers should beware!

So much for 733's character traits. With such life and vigour at their disposal though, from an essentially well engineered sound that is fundamentally accurate, these low cost floorstanders are going to take listeners' heads off. They're great for rock and sweet enough with classical, but too resonant to come over as fully balanced. All the same, at the price Mission's new 733s have to be rated as something special. They bring music to life - and that's what good hi-fi should do.

Mission 733
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see p105-111
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The fourth installment of the "Maximalist Preamplifier" brings me to the design of the digital interfaces. This is intended for purely domestic use so the emphasis is on the Sony/Philips Digital Interface (SPDIF), but because of my own involvement in professional digital audio I have incorporated an AES/EBU input as well.

Adhering to my principle of constructing an auditionable design as I go, the first stage (illustrated below) consists of input receiving, output transmitting and some switching in between. Later on, I intend to design some "glue-logic" which will decode the digital input, strip out copy code, and recode the data into the correct digital audio SPDIF/AES format.

Eventually the preamplifier will not only be able to receive SPDIF or AES, but also translate electrical levels (and channel-status information) into either standard. In other words the pre-amp will be a digital audio standards converter as well as switching unit. (Incidentally, last month’s Recorded Message contained a description of both the AES/EBU and SPDIF interfaces and data structure).

There are many ways of constructing a digital audio interface. Probably the simplest consists of an IC-family inverter IC, biased at its midpoint with a feedback resistor and protected with diodes across the input to prevent damage from static or overvoltage conditions. I have to say that about the only real merit of this circuit is simplicity!

I have railed-on before about the short-sightedness of manufacturers who omit the transformer coupling of digital audio data, so I won’t repeat myself. Suffice to say, transformer coupling (even of the analogue interfaces) is one of the underpinnings of this preamplifier design.

Happily, whilst analogue audio transformers are complex and expensive items, digital audio containing as it does no d.c. component and very little low-frequency component, can be coupled via transformers which are tiny and cheap! So it represents a false economy to omit them in the design of digital interfaces. I have found data-bus isolators manufactured by Newport - and easily available from RS Components (or via Electromail) - are very suitable. Two or four transformers are contained within one IC-style package. Each transformer costs about £1.50 - a long way from the £15 or so required for analogue transformers.

Remember that "in digits" only one transformer is required to couple both channels of the stereo signal. You’ll notice, looking at the circuit diagram, that I’ve opted to use RS422 (RS485) receiver-chips to buffer and re-slice the digital audio data. I’ve chosen the SN75173J, a quad receiver in a single 16 pin package costing a few pounds. This has the added advantage that to adapt the interface between SPDIF and AES, all that’s required is to change the value of the terminating resistor on the secondary side of the input transformer.

One thing to watch on the SN75173 is the polarity of the second enable-pin (pin12) which differs from manufacturer to manufacturer. Digital switching is shown schematically in the diagram as a selector switch, this is best implemented electronically but a mechanical switch is adequate. Digital output driving is performed by using two inverters which are used in tandem to increase the output drive. If AES/EBU output is required, an RS422 driver IC will do the trick beautifully.

I’ve chosen to transformer the output too, although this is not required as part of the digital audio standard. The record-interlock circuit block is shown dotted as it’s not necessary to include it at this stage. It’s there because digital audio is just the same as analogue in that if a DCC (or DAT) player is selected as the current input when the record button is depressed on the tape machine, a feedback loop is set up via the record-output circuit. The result is tweeter-bursting howl. Eventually this interlock will automatically prevent this expensive circumstance from ever occurring.

There are many ways of implementing digital audio I/O. I hope this exercise of thinking through the design of the Maximalist Preamplifier out loud will provoke debate. It isn’t my intention to create a didactic series of articles so I’ll close this month by posting an entirely different approach to the receiving and buffering of digital audio signals.

It’s quite possible to treat digital audio pulses as a high speed analogue signal! This approach works very well - I’ve tried it on the bench. If you’re an analogue die-hard and looking for something different, you could try this technique yourself. Use a high-speed video op-amp like the e12020 from Elantec for the receiving and transmitting devices in 75 ohm matched-termination circuits.

Recorded message
Left by Richard Brice

Happily whilst

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  - Worth every penny, pushes recordings to the limit and remains unflustered.
  - Feb'94

- **NAKAMICHI DR1** | £780
  - Nakamichi sound quality, and manual head azimuth adjustment.
  - Jun'93

- **NAKAMICHI CR-7** | £1500
  - No Dolby 'S', but auto tape tuning and motorised head. The Best!
  - Aug'92
channel reproduction on one loudspeaker does. An interesting test is to listen to single-channel playback, especially of voice or solo instruments, and judge how real the sound is. The result is often very disappointing, even with loudspeakers which are sold as being suitable for monitoring. Perhaps this explains why you made your comment?

My experience is that realism is definitely the province of two-way horn systems, and I have heard experimental, compact two-way horn loudspeakers which have been frighteningly realistic, therefore I know it is possible. Having looked at the market, I am not aware of a commercially available horn design, domestic or professional, which I believe capable of a realistic presentation, and indeed it may be that the most realistic-sounding loudspeakers belonged to a previous generation.

I would be interested to see opinions from every link in the chain: from performers, studio engineers, designers, reviewers and end-users. M.J. Lawrence

Selly Oak, Birmingham.

Striving for realism is a great notion and we do fully support it, of course. What I am wary about here is that recordings are not necessarily accurate portrayals in themselves. Professional microphones do not necessarily have a flat frequency response, for example; many have treble lift. To make vocals from such a source sound natural the hi-fi system would have to apply reciprocal treble cut. It will then offer neutrality, but it wouldn't be neutral!

Many CD players possess some treble roll-off, because this usefully smoothens the generally bright sound from CD. Such players aren't accurate by definition, yet they are commonly deemed to sound more neutral and accurate. So in hi-fi we are commonly faced with an apparent contradiction; perceived neutrality does not always derive from truly neutral components.

If I say we unerringly strive for accuracy and neutrality, do I then have to say "even if you don't like it"? That's patronising. At the end of the day, we don't pursue petty dogma. We are prepared and do occasionally endorse products that are not strictly accurate, but may well give people pleasure in their music. Our way of handling this is to try and point out the compromise that is on offer and ask people to make up their own minds.

Horn loudspeakers may have "realistic" dynamics, but they certainly do not have a flat frequency response, so are they truly realistic? It strikes me this illustrates how notions of realism and accuracy are quickly inducted to defend viewpoints even when they are clearly open to question. That's precisely why we do not pursue such notions too ardently. Horn loudspeakers are a great experience and I for one would not attempt to counter that just to fit in with notions of accuracy, realism and truth. NK

TEAC REVIEW

BEYOND COMPARISON

As a regular and committed reader of HFW (I'm now in my second year's subscription) I hope that you will accept some comment on your reviews as constructive observation rather than criticism. My point is that I find some of your equipment reviews to be a bit on the thin side, especially when it comes to relating performance to comparable equipment.

Your review of the TEAC VRDS-T1 in the February '95 edition was a case in point. In the first instance there was no mention of the facilities. I am one of the probable majority who would not use the more sophisticated facilities provided on some equipment these days, but I would certainly be interested to know if the TEAC comes equipped with a remote control and optical output. One was left to search the photograph to gain a clue!

Secondly, while I certainly appreciate the amount of space you devote to sound quality, and can see the merit in using a high-end Pink Triangle transport and DAC as a reference, surely of more interest to the reader (and especially to a prospective buyer) is how the TEAC sounds in relation to its competitors such as those from Arcam and DPA. Or, perhaps, in what areas the TEAC might bring improvements over the average integrated CD player being used as a transport - I currently use a Philips CD634 with a Little Bit 'Mk1 'The Power' and would have been interested to know whether the £500 TEAC was a worthwhile upgrade. All the review told me however, was how the TEAC fared against the much more expensive Cardinal.

Please, when reviewing equipment bear in mind that most of us are still on the (never-ending?) upgrade path and will often read reviews in relation to where we already are or where we might go next.

Mike Shipp

Couldon, Surrey.

In dwelling too much on 'facilities', there's a danger of sounding like manufacturers' sales brochures or press releases, leaving less space in the review to deal with sound quality. Certainly if the review product has any interesting features, we will mention them.

In a one page review, again due to space considerations, it's difficult to start making comparisons across the board. But now we've moved the measured performance to a separate section, I hope you'll appreciate the extra breadth we can bring to reviews. DP

SYNERGY PLEA

Seeing the review of the Thomas Transducers Brios brought back memories of the Lowther speakers which I once owned. It seems that horn loaded designs just won't curl up and die like some marketing departments would like them to, and certainly some of their characteristics are infectious. These days I simply do not have the available space and have settled for some Tannoy dual-concentrics which at least have some of the immediacy and clarity I used to enjoy, but I still miss the Lowthers. Even though they were merciless in highlighting circuit noise and recording imperfections and could sound less than impressive with certain material, when they shone, they really shone!

This brings me onto the subject of compatibility, not just objective technical compatibility but subjective matching of individual hi-fi components. I have long felt that this area deserves a little more attention. Many components are well received in isolation (and get good reviews in the media) but this is no guarantee that they will be suitable in certain combinations. The specialist retailers will of course endeavour to demonstrate the permutations available in their particular facility, but this is by no means comprehensive.

In my opinion HFW lead the way in adopting a sensible reviewing balance, but how about incorporating a few continued on page 47 ....
The new Audiolab 8000CDM Compact Disc Transport

The Audiolab product range:
- 8000A Integrated Amplifier
- 8000C Pre-amplifier
- 8000PPA Phono Pre-amplifier
- 8000P Stereo Power Amplifier
- 8000T FM/AM Tuner
- 8000M Monobloc Power Amplifier
- 8000DAC Digital-Analogue Convertor
- 8000CDM Compact Disc Transport

Audiolab 8000A
Best Integrated Amplifier
Over £300

Audiolab 8000T
Best Tuner

Audiolab 8000DAC
Best Digital product

Cambridge Systems Technology Limited, Spitfire Close, Ermine Business Park, Huntingdon, Cambs. PE18 6XY. Tel 01480 52521
WHAT DIFFERENCES?

Every two years or so, a strange affliction overcomes me and I develop a passionate interest in all things hi-fi. I start buying magazines, reading reviews and usually end up sorely tempted to get rid of some part of my system and replace it with something more expensive.

A few years back, I did this for a good reason. I had just moved, and my ageing Wharfedale Glendales and Cambridge Audio P50 amplifier sounded so boomy in the new lounge that they were virtually unlistenable to. 'Tweaking' had come into fashion by then and I indulged in all kinds of trickery to try and cure the problem, including new cables, removing the feet on some speaker stands and filing them into spikes, toeing in, leaning back, moving away from walls and so on. Nothing dramatic happened, so the set up was replaced with Mission 760s on shot-fitted stands and a Pioneer A300X amplifier. The difference in sound was so dramatic that even casual listeners would be in no doubt as to the improvement. Since then, the only major purchase has been a Marantz CD52 because my Philips went wrong. This time the improvement was obvious but not dramatic.

These days, however, things are much more difficult when the afflicting state is upon me. I have listened to more expensive loudspeakers, amplifiers, CD players and record decks in dealer's audition rooms and in direct comparison with a similar set up to mine. Comparing my reactions to some of the comments made in various hi-fi magazines, I've come to the inescapable conclusion that I'm 'hi-fi deaf'. I have looked up this affliction in a medical dictionary, but it is not listed, so I think it would be a good idea to list the symptoms for the benefit of the readers:

- I cannot hear loudspeaker cables. Honestly, not a peep. The cheapest and most expensive seem to make the speakers sound exactly the same.
- I cannot tell the difference between biwired and conventionally wired loudspeakers.
- I have been unable to detect the improvements in SE versions of equipment over the standard version, described by reviewers in glowing terms.
- I have great difficulty differentiating between biwired and conventionally wired loudspeakers.
- I have been unable to detect the improvements in SE versions of equipment over the standard version, described by reviewers in glowing terms.

- The only dramatic improvement in ambience and imagery is with Magnapane speakers (with Krell amps) over box-type speakers.
- I have not heard any difference at all in the sound produced by CDs on any player after the use of green pens, damping pads, etc.
- I can detect no audible effects from the use of special mats or equipment stands except for speaker stands.
- I am obviously in the wrong state, but looking at the bright side, my hearing is normal in all other respects, and my enjoyment of classical music has not been in any way affected by my 'hi-fi deafness'. My enjoyment in reading articles and reviews is also unaffected, and so on.

I am not aware of any new tests for assessing audio equipment. These days audio isn't seen as important enough commercially to warrant heavy research and development budgets. A new type of 'super resolving analyser' that relies upon very heavy computing power is likely to be a help, when it becomes available.

Generally, a good lab performance, at least in certain key areas, is a prerequisite for a good audio performance. But, perplexingly, there are a growing number of exceptions; we are getting some strange measured performances from Pioneer, Arcam, DPA and Denon CD players/convertors, for example, and of course both valve amps and the LP manage to sound very good whilst turning in a relatively poor measured performance.

My apologies for seeming to suggest we don't care about neutrality or objectivity. We do, very much, but are wary of some of the simple tests for it, which can be misleading. The truth is we have invested large sums in sophisticated audio test equipment, carry out a lot of test work and will continue to do so. This equipment is vital to verify performance of products in for review, and it quite often does point to potential problems that will compromise neutrality. So we are strong supporters of objectivity and neutrality - it's testing them that's the nightmare!

I'm still an advocate of 'neutral' systems, and that something is only good if it is consciously engineered that way, even though NK chastised me on this. I just have difficulty believing in fairy dust...which applies especially to cables!

Once again, keep up the excellent work and I look forward to receiving my copy on my doorstep every month.

Manolis Kroussaniotakis.

LENDING AN EAR

From previous letters of mine, you may recall that I had a Rock MkII, Myst TMA3 amp and Castle Pembroke II 'speakers. The Myst was changed for a Quad 44/405-2, which proved better in many ways, but something was still not right. So I bit the bullet and ordered an EAR 834P which I had heard at Hi-fi Confidential. This fed the 405-2 directly via the volume control. Amazing. Who said that Quads have no bass?

Now the gripes. The condition in which it arrived was definitely not new. There was no box or instruction manual - I was not interested in the "You have bought a wonderful product" type manual but something that includes specifications and valve types would have been nice. There wasn't even a serial number!

Now the praise. Luigi at Hi-fi Confidential replaced the unit with a new and aesthetically improved version without hesitation. That's service! EAR have produced a wonderful product of amazing value. I'm surprised Mr. T. de P. hasn't brought out a super version with regulated power supply, better valves, better transformer, better aesthetics (to match the EAR 834), etc., charge £6-700 and challenge the ISO head-on!

Regarding tests, if good lab performance does not necessarily translate to good listening performance, then there are some parameters that aren't or can't be tested. Is anyone trying to solve this? I'm still an advocate of 'neutral' systems, and that something is only good if it is consciously engineered that way, even though NK chastised me on this. I just have difficulty believing in fairy dust...which applies especially to cables!

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Manolis Kroussaniotakis.
Readers' Queries

GOLDEN CONES

I own a pair of Tannoy Devon loudspeakers which require re-coning as the pliable foam surround has begun to part company with the chassis. The drive units are 12" monitor Gold HPD315A's and naturally the first people I contacted were Lockwood Audio, who quoted £156.71 per driver, which left me speechless. Obviously I would like them repaired, but surely there are companies capable of doing this work at a more affordable price, as £313.42 seems ridiculous for a change of cone, or is this the going rule? A friend who possesses Lowther drivers recently had a full rebuild with new magnets etc. at the factory for £130 per pair.

Could you supply me with the names of any other companies who could perform this work using proper Tannoy cones etc at what would be a more reasonable price?

P. Kemp
Cleveland.

I spoke at length with Roger at Lockwood Audio who confirmed the following. Firstly, although the 12" Tannoy cones you have are Gold in colour they are not Monitor Golds, they are, as you have correctly identified, HPD315A's. Although it sounds as if it is only the foam surround that has gone on your units, the only replacement available is a complete cone, voice coil and surround. This is part of the reason for the high cost of the re-cone. As Roger explained though, because these units were built to such a high tolerance, as the surround wears out the cone will sag, causing the voice coil to rub and wear, making a complete replacement necessary anyway.

There is some good news for you though. The old surround contained organic material, which is why they deteriorate. The new surround that would be fitted uses a rubber compound that should give around 30 years life-span. More good news, is that since you last contacted Lockwood Audio, the cost of a new cone and surround has decreased, to £282/pair. Bear in mind that a professional re-cone like this will effectively give you a brand new driver, and that the cost of an equivalent replacement for the Devons from Tannoy would be well over £1000 these days.

RIP IT UP

On CD replay, but not on LP, and on any line input to my Exposure X amplifier I occasionally get a noise like ripping paper at moderate volume levels. Am I clipping the amp or tripping the speaker protection? Since it delivers 60W I would have thought it would cope with my B&W CM1 loudspeakers.

The sound is pretty bass heavy and doesn't give me the 3D effect I associate with good reproduction. Suggestions for upgrades if you please. My thoughts are to ditch the amp and go for a DPA or Audiolab and change the cartridge for a more upmarket moving coil. The CD player will also go soon.

C. J. Humphries
Leamington Spa, Warwickshire.

If you mean that you get this sound from CD, whichever line input is used, then it is almost certainly caused by the CD's error correction circuits being overwhelmed. Check the disc playing at the time; you'll probably find it is scratched quite badly.

Exposure amps do have a strong, driving sound much loved by rock fans, but as you say it isn't too subtle. The ever popular Audiolab 8000A has excellent MM and MC input stages, plus 70 watts per channel of power, and this might be a good choice. The DPA Renaissance costs £595 and is less butch in its delivery, if sweeter and more poised, but it has moving magnet only. For moving coil you'd need to get an additional DPA head amp at £495. This option is considerably more expensive.

NK

UPGRADE PATH

My present system is: Audiolab 8000A amp, Arcam Alpha Plus CD, Linn Index II loudspeakers on Ku-Stone stands, Linn Basik turntable with K9 cartridge, K400 speaker cables. Careful setting up (initially using a test CD) has resulted in the speakers being positioned with 74" between them and 12" from the rear wall, in a 15' by 12' room.

My music collection covers rock and Country & Western. I find my present system a good compromise for my music tastes and I would now like to upgrade in two stages; pre/power amplifier now and a new CD player early in Spring.

The obvious choice would be an Audiolab 8000CP and a Delta 270 CD player. I have been told that an Albarry pre/power amp is perfect for Linn Index loudspeakers. No one sells these amps in London and I have no address or product details - can you help? Can you give me your advice, £2000 is my limit after selling my existing CD player and amplifier.

My turntable is used for rock and Country & Western. I'd strongly recommend you take a long listen to your Delta 270 and Quad 67 CD players.

My turntable is used for rock and Country & Western. I'd strongly recommend you take a long listen to your Delta 270 and Quad 67 CD players.

Whichever you choose, you will now have a top flight CD front end, so similar attention should be lavished on the turntable if it is still to give enjoyment. We recommend it a lot, but Goldring's 1042 really is a fine cartridge. It has a super stylus, enabling it to dig tremendous detail out of the grooves, and has a solid and powerful sound that certainly

The Audiolab 8000A is a superb amplifier, one of our favourites, in fact. Not only has it got a punchy and detailed sound, but also comes with a top quality phono stage that is difficult to beat. Upgrading to the Audiolab 8000CP will give you more power, but the improvement in sound quality would be small in comparison to the extra outlay involved, especially considering that the Index II loudspeakers are quite sensitive, and the 60W or so that the 8000A produces is ample.

So to start with, I'd keep the 8000A and concentrate your funds elsewhere for maximum improvement. The Delta 270 is a fine CD player, but before you take the plunge, have a long listen to the Quad 67. This has an especially smooth and inviting sound, one that's hard to resist. Another option open to you, and the one that would push your system further forwards in terms of sound quality, would be to add DPA's £795 Enlightenment CD convertor to your Alpha Plus, using its digital output. This convertor is one of the best we have ever listened to (there is even argument at the HFW offices as to whether it is better than Pink's Da Capo). I'd strongly recommend you take a long listen to your Alpha Plus/DPA Enlightenment verses the Delta 270 and Quad 67 CD players.

Whichever you choose, you will now have a top flight CD front end, so similar attention should be lavished on the turntable if it is still to give enjoyment. We recommend it a lot, but Goldring's 1042 really is a fine cartridge. It has a super stylus, enabling it to dig tremendous detail out of the grooves, and has a solid and powerful sound that certainly
won't come over as 'flat'.

After sorting out your CD and vinyl front ends, I calculate you still have around £1100 of your budget left. Here you have two options: either the improvement made by the above suggestions will be enough to keep that upgrade bug at bay for a little while, in which case I suggest you treat yourself to some new albums, or you could investigate the possibility of upgrading your 'speakers, which I would consider as the next move in any case.

Here there are numerous models to audition, but two spring to mind which I think would be most suitable for your system and musical tastes. The UKD Callas Walnut loudspeakers use very high quality Focal drivers, which have an exceptionally open and crisp sound. They are finished in solid Walnut, so they look fantastic too. These are plenty sensitive enough for your Audiolab 8000A to drive with ease.

The other option open to you would be Harbeth's HL-P3s. These too have a lovely sound, very solid and focused, especially through the midrange. As these are a little harder to drive, you could also consider adding an 8000P power amp at some stage to drive the bass in a bi-amp, system, your existing 8000A acting as the control amp. and driving the treble.

As far as we are aware, after speaking to their previous distributors and retailers, Albarry are no longer in business. DB

BACK AFTER TWENTY YEARS

Having recently come back to the hi-fi scene after a twenty year break, it is somewhat of a cultural shock and I would appreciate some advice regarding my present system.

My system comprises a recently acquired second-hand pair of Spendor BC1s driven by my 22year old Rogers Ravensbrook amplifier, Ravensbrook tuner, 2 x Akai GXC40Ds, Pink Triangle fitted with a Decca Mk1 arm and FFSS III cartridge. I have also recently acquired second-hand a Sansui D-150M cassette and TU533L tuner and have no idea of their pedigree (or lack of it) and use Audioquest Type 2 cables for the 'speakers.

I may well acquire a CD player in the near future, something like a Marantz CD63. I have two upgrades in mind at present: the amplifier and an arm/cartridge, although I like the sound of the FFSS. I recently read in your mag about somebody considering a Quad 33/303 (second hand) which you said was fine for the museum. However I have been considering a similar move - logical if you consider the sound of the Rogers.

I would appreciate some suggestions in respect of a modestly priced arm and cartridge combination that has the similar sort of attack of the old Decca.

M. Stevens
Kent.

The best choice of arm, within a reasonable budget, for your Pink Triangle turntable would be the Rega RB300. This uses a one-piece cast arm tube, making it extremely rigid, reflected in its powerful and coherent sound. The RB300, unlike most budget arms, can be used successfully with Moving Coil cartridges which I'd recommend for their faster and more detailed sound, as well as their transparency. Try fitting the RB300 with Ortofon's MCI5 Super II, which, in your system, should balance the sound nicely.

Finding a smooth sounding amplifier to complement your system, with a good MC phono stage too, may be a little more difficult. Below £500 there...
That most maligned of hi-fi separates, the budget Compact Disc player, is no longer the shoddy, shrill article it used to be.

The JVC XLZ-574 is a case in point. Its build quality belies its £250 price tag, with a clean looking brushed metal front panel and quality feel. The display can be switched off for (theoretically) better sound, and a switchable digital output is provided for external convertors. The disc tray is slow in use, but of good quality, and the transport fast and quiet. All in all, aesthetics and feel weren't far behind our current reference Audiolab transport!

Sonically the JVC is standard modern budget fare. This means that it's always pleasant to listen to, in both complimentary and derogatory senses.

This was best illustrated by a vintage slice of Ride, one-time purveyors of intense guitar noise, around which some great melodies are fashioned. 'Like a Daydream' is one such example where, if there are any faults in the system, the song comes across as a mass of confusion. Surprisingly, the JVC held on tight, delivering a well balanced acoustic through which drums and vocals cleanly cut. Hi-hats had a satisfying lustre, and kick drums could be heard somewhere back in the mix powering along the song.

Problems presented themselves however, with an obvious flattening of dynamics. Percussion seemed robotic and lacking rhythmic nuances, culminating in a matter-of-fact delivery. I quickly moved to Denon's £350 DCD-1015, which threw some light on proceedings - the JVC was missing much of the low level information in the song, sublimating the music to its superficially smooth 'hi-fi' sound.

Raintree Crow's 'Pocketful of Change' showed it most comfortable with sparsely produced tracks. The grain of David Sylvian's voice was clear and well projected, imaging superbly behind the speakers. However, the low level synthesizer backing was barely audible, auguring badly for the spacious feel of the song which better players manage to reproduce. Once again, drums lacked dynamics and the intricacies of cymbal work were lost, the JVC rendering the playing metronomic and underwhelming.

At no time did the JVC sound uncouth in the way that budget players used to. Lonnie Smith's 'Think' is a dynamic recording that often throws CD players off course, but the XLZ-574 wasn't having any of this. Tenaciously clinging to the basic rhythm of the piece, it made a good job of Lee Morgan's rasping trumpet, and Melvin Sparks' impressive guitar fingering. It was only when I moved back to the Denon that I realised what I'd been missing - greater weight and body to the drum kit and much looser, more human playing. It was as if the baby JVC was imposing its own sense of order on the music, homogenising everything it touched.

It's a credit to JVC that they can produce such a refined package at this price. It wins respect for the way it covers its tracks, smoothing over its failings in a very convincing way. It's a thoroughly well-rounded product, the sort of thing UK manufacturers should be making more of. But if true fidelity is your goal, you'd still do better with Britain's own budget NAD or Arcam products!

JVC XLZ-574
JVC House, 12 Priestly Way,
London. NW2 7BA.
Tel: 081 450 3282

£249.99

CD SMOOTHIE
David Price finds JVC's £249.99 XLZ-574 Compact Disc player as refined as they come.
Maybe it's because I'm an inveterate traveller, or perhaps it's my propensity for immersing myself in a Phil Spector-like wall of sound at any time, but I get on with high quality personal stereos just fine.

Being someone who constantly hauls around a Sony DAT Walkman in the cause of 'mobile fidelity', I was interested to see how Philips' new DCC170 personal would compare. The Sony, although a touch on the weighty side, turns in a superb sound and makes stunning recordings. Could Philips' DCC equivalent beat that, I wondered?

Certainly the DCC170 has superior ergonomics, is far lighter and more compact, and doesn't seem to sacrifice much in the build quality stakes either. The top facia contains transport controls, as well as a row of switches for DCC's time and text sub-coding facilities. Cassettes of both digital and analogue persuasion fitted in quickly and easily, and the rechargeable battery was small and light, with a claimed 3 hour recording, playback or recharging time.

Around the sides of the DCC170 are various controls for recording mode and level, Dolby B noise reduction (for analogue replay only), auto-reverse, volume and the obligatory but superfluous "Dynamic Bass Boost" facility.

On the move, the DCC170 was an eminently practical proposition. It bids good riddance to the absurd rigmarole of skipping and jumping, a fact of life when using a CD Discman whilst in motion. The sound remains stable whatever you find yourself doing, and the supplied wired remote proved extremely useful.

Sound from the supplied headphones was mediocre, but judging by the quality available through line out, the headphones were more the culprit than the DCC170 itself. With this in mind, the rest of the testing was done in the calm (?) environs of our listening room, where aspects of the Philips' sound caused a number of eyebrows to be raised.

The most impressive facet was, ironically enough, its superb analogue playback abilities. I'd venture to compare its replay of Yazz's 'Fine Time' prerecorded to the Sony Walkman Professional. The soundstage was enormous, images superbly located and rock-solid. Treble quality was comparable to that available from the best of dual capstan cassette transports, and bass went extremely low with great power and control.

After this unexpected surprise, the DCC170's digital department came up for inspection. Firstly, recording digitally from a Marantz CD63SE showed Philips' onboard DAC to be far smoother - not a bad thing - and almost on a par in terms of detail resolution. Direct digital recordings reflected the sweet tonal character of the DCC170's DAC, but lost a little low level detail.

Recording from the analogue inputs digitally was also impressive, the Philips producing almost as much bass as when replaying analogue cassettes, although it occasionally veered towards harshness. It seemed to lose a degree of space around instruments, wrongly shifting perspective closer to the listener. Treble was good but there was some 'digitalisation' going on, by which I mean sucking out the atmosphere and adding hardness and sterility.

As a mobile music maker, the Philips DCC170 is unlikely to disappoint, but unlike my ageing Sony DAT Walkman, it doesn't really hold a candle to the very competent fullsize DCC decks now gracing dealers' shelves. Nevertheless, it's an undeniably attractive package, bound to win many friends.

PHILIPS DCC170 £249.99
Philips Consumer Electronics,
City House,
420-430 London Road,
Croydon.
Surrey CR9 3QR
Tel: 081 689 2166

David Price asks whether Philips' DCC170 successfully brings Digital Compact Cassette to the streets.
A guide to Britain's Manufacturers and Distributors.

ACOUSTIC ENERGY, 3a Alexandra Road, London W13 0NP. Tel: 0181 840 6305. Acoustic Energy manufacture the pre-fabricated Home Cinema version of the Series AE and AE2 loudspeaker systems and the new Assam Series Model 1, all of which feature the unique AE metal cone drive units. The AE distibution division offers superb high end products from WADIA, GRYPHON ENSEMBLE and TARA LAB.

ALCHEMIST PRODUCTS, 4 Rosebury Mews, London N10 2LS. Call on us for a list of our dealers in many areas including: London, Kent, Hampshire, Berkshire, North London and the Isle of Wight. We supply and test equipment for demonstration. The Exquint Power Amp fitted to Quad II hardware.

BANDRIDGE LTD are the premier suppliers of DVD and CD Player kits, and their kits are supplied to the BBC and the 5' reviewed Minette 2 speakers. The two together produce a sound that has been described as 'brutally and irritating' and that was described as being 'already out of control'. You can get your own, if you know what you want. For information on only these products but also the Arcam CD Players, Spectral, Thinksound etc. Phone or write to request a brochure. The pleasure is all yours.

APRIL 1995 HI-FI WORLD

MEET YOUR MAKER

The Exultant Power Amp fitted to Quad II Hardware. The 200w Quad II has a very high output and is capable of driving almost any load in the audio world. It is a very powerful amplifier and is capable of driving a wide range of speakers, including the most difficult. The Exultant Power Amp is designed to be used with Quad II hardware and is supplied with a full warranty.

Compact designs with a new one when you can clean, repair and protect your speaker cabinets. A new one is still available - only from DBS Audio. To find out what these compact, cost effective and easy to order high quality loudspeaker enclosures and drive units, call us at your local DBS Audio distributor or visit our website at http://www.dbsaudio.com.

ARKAM, Pembroke Ave, Denny Industrial Centre, Hampshire. Wilts, Milton Keynes and N. Ireland

Please send for our free brochure to Zenith Crown Engineering Ltd. We are the sole manufacturers of Audiophile design, development and distribution. Please contact us for details of PASSION the new line of products.

Audio & Visual supplies to the BBC and the 5' reviewed Minette 2 speakers. The two together produce a sound that has been described as 'brutally and irritating' and that was described as being 'already out of control'. You can get your own, if you know what you want. For information on only these products but also the Arcam CD Players, Spectral, Thinksound etc. Phone or write to request a brochure. The pleasure is all yours.

ARCAM, Pembroke Ave, Denny Industrial Centre, Hampshire. Wilts, Milton Keynes and N. Ireland

newly extended range).

The Exultant Power Amp fitted to Quad II Hardware.

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BANDRIDGE LTD are the premier suppliers of DVD and CD Player kits, and their kits are supplied to the BBC and the 5' reviewed Minette 2 speakers. The two together produce a sound that has been described as 'brutally and irritating' and that was described as being 'already out of control'. You can get your own, if you know what you want. For information on only these products but also the Arcam CD Players, Spectral, Thinksound etc. Phone or write to request a brochure. The pleasure is all yours.

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AUTOMETERS, Ltd, Unit 1 Block C, Howe Business Centre, Fonthill Road, Howe BH4 3NA. Tel: 023 20251101. AUTOMETERS supply a range of very high quality and very expensive audioophile components including valve output transformers.

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IMPROVING A NAIM 32.5

I have Linn Isobariks, Linn grey speaker cable, two Naim 135 power amps, a Naim 32.5 preamp, Hi-Cap fed by Linn LP12 turntable with Lingo and Ekos arm and a new old-stock Troika. All equipment on AudioTech wall shelf. A Naim NAT-01 tuner works from a Ron Smith Galaxy 17 six stories up and a Nakamichi DR-1 provides cassette recordings.

My first query is on upgrading the preamp. The 32.5 is a bit long in the tooth. I listened to the 72 which is a little cleaner, but not a big difference, then the 82 with Hi-Cap power supplies which had a fair bit more of everything and finally the 52 - aah!! This blew the others away, but at £45k the price is a little OTT. Can you recommend rivals, solid-state or thermionic, that would equal or maybe go further than the 52? I need seven inputs, including MC phono.

My second query concerns my Nakamichi DR-1 cassette recorder. It's a fantastic machine, but the azimuth control has to be set to 1 o'clock to peak the treble on most pre-recorded tapes. Also, when making my own recordings and off-tape monitoring on headphones the treble is best at around 1 o'clock and with the red warning light on. Is this right? I only use TDK AR and, recently, TDK MA. The bias adjustment control seems to make no difference either when monitoring recordings, however it is set. Do I need a bias bug? Could you advise on recording levels for tapes to be played later on lesser machines, like a car player and Pro Walkman?

Recording off air from my Nakamichi DR-1 is well known. Naim NAT-01 and your Nakamichi DR-1 provides cassette recordings. I was taken aback recently to hear a simulcast of the Proms from my Nicam VHS recorder sound better than that from the NAT-01 which, by comparison, sounded muffled and closed-in. Why is this?

Adrian Owen-Smith
London.

I doubt that you'll find another preamp with the 52's tremendous information retrieval; it sounds like a master tape being run. A possible alternative, albeit with a different presentation, is the Michell Isol/Argo combination. Whilst not sounding quite so dry and upfront, it has an unusually open and spacious sound that you may well take to - and it won't come as much of a culture shock, unlike valves. Your requirement for seven inputs as well just cannot be met!

I also found, when testing a DR-1 (June 1993), that the replay head adjuster had to be set to 1 o'clock for most pre-recorded tapes, due to small differences between Nakamichi and European (BASF) azimuth alignment tapes I imagine. This is of no great consequence in itself.

Recordings made on the machine should replay optimally (i.e. give most treble) with the replay head 'upright', shown by the azimuth control warning light glowing green. It sounds like your record head needs a little realignment if this isn't happening, something only Nakamichi should carry out (phone 0903 750750).

The bias control should make a lot of difference whilst you are recording (rather than replaying a recording), providing you have Tape, not Source, selected on the Monitor switch. If you are certain it does not, then there may well be a fault.

Don't record much past 0VU on peaks for clean reproduction on lesser machines, irrespective of the tape used.

The problem with the NAT-01 and your Nakamichi DR-1 is well known. Naim advise you to return the tuner to one of their dealers and its output can be increased.

I asked BBC Engineering Information to explain why they felt Nicam 728 gave better sound. In a nutshell, their view was that because the signal stays digital (14 bit at 32kHz sampling rate) after encoding in the Albert Hall (for the Proms) all the way through to your VHS recorder, it suffers less degradation. For VHF/FM transmission this same digital signal is converted back to analogue at the transmitter (Wrotham for London), before being encoded into a Zenith/GE composite signal for modulation of the carrier. The Naim subsequently demodulates and decodes this signal, applying yet more processing. There's quite a lot of analogue processing here, something digital avoids. That's most likely the reason for the degradation you heard. NK

Mission's 752 loudspeakers use a high tech Aerogel bass unit for a fast and detailed sound.

AGGRESSIVE AT VOLUME

I feel my system is lacking. At high listening levels the sound can become aggressive and tiring. I have a Thorens TD160 turntable, Ortofon MC20 Super, Arcam 170.3 transport. Arcam Black Box 5 upgraded by Arcam to 50 spec. Quad 34/405.2, Quad FM4 tuner, KEF105 loudspeakers wired internally with QED Incon, a

Continued on page 55....
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When we listen to music, both the high and low frequency sounds help our brains to paint a 3 dimensional stereo picture. But when we listen to CD, the high and low pictures do not perfectly realign. With their clinically clean electronics, CD players lack the beneficial, subtle signal handling of analogue equipment which can actually "re-converge" the two stereo images. So creating the convincing illusion that is the hallmark of good analogue systems.

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— Eric Braithwaite - Hi-Fi World

"CDs sounded better defined, the soundstage having a more definite shape. It was as if there was more air around each strand in the mix, allowing you to hear it more distinctly, more separately...I didn't immediately want to switch the CD player off and relax with some LPs, instead I went on to make further explorations of my CD collection"
— Andrew Carmel - Hi-Fi Choice

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Perfect Pitch Music is a trademark of Select systems ™
Revox A77 open reel and a Technics RS-BX606 cassette deck. I decided to listen to alternative amplifiers, borrowing from DPA a 200 preamp and two monoblocked 200 power amps. with White Sink interconnects. I sat back and listened with Seal's first album, knowing that the bass sounded boomy and overblown. The sound was beautiful and the boom gone. I put on Michael McDonald's "Blink of an Eye" and was pleasantly surprised. I had boom where previously I had none. Why? The DPA sounded more dynamic than the Quad, so I contacted Quad and they weren't the least bit surprised. They felt that 12 year old equipment was unlikely to compete equally with new. They suggested that I should bring my equipment back for a service. Only then would I be able to make comparisons.

Two days after returning the equipment Quad rang me and asked if the units were ready for collection. The sound was amazing - dynamic, musical and portraying aspects that I hadn't heard before. I decided to listen to DPA again and was pleasantly surprised. The rest of my system comprises Goldring 1042, Rega RB250 arm on a Manticore Mantra, a Marantz CD521I, Leak Troughline, Audio Innovations Series 200 preamp., Leak TL25 Plus valve monoblocks. Interconnects/speaker leads are silver plated copper.

Owing to space restrictions the speakers will either have to stand in the room corners or be wall mounted at listening level. The room measures 13ft x 10ft with a concrete floor. My musical tastes vary from rock through to classical. I have a budget of around £500 initially, although future funds may be found for a subwoofer. Any other comments you have would be welcome.

Martin Knevett
Crawley, Sussex.

You are facing a basic difficulty here: small speakers that go low are generally insensitive and consequently need a powerful amplifier. We would recommend Harbeth HL-P3s, for example, except that your Leak's don't really have enough power to drive them, except to very modest levels. So it is with the Rogers LS3/5as, although these are more expensive. That leaves us with Systemdek Systym 93Is or, to date heard only at a show, the new budget KEF Coda 7s. These are small but, KEF assure us, unusually sensitive too.

You will suffer terrible bass boom with the speakers in the corners. Look to wall mount them at ear height. It compromises stage depth and image sharpness a bit, but you will just have to accept this. Otherwise, your system is fine.

SMALL ROOM 'SPEAKERS'

I would like to upgrade my speakers and you views would be appreciated. I am currently using a pair of Bose 30S which are wall mounted. The rest of my system comprises Goldring 1042, Rega RB250 arm on a Manticore Mantra, a Marantz CD52II, Leak Troughline. Audio Innovations Series 200 preamp., Leak TL25 Plus valve monoblocks. Interconnects/speaker leads are silver plated copper.

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Dominic Baker finds that Jamo’s new 307 loudspeakers face stiff competition.

Jamo’s 307s are smart, stylishly turned out standmounters of modest proportions. The moulded baffle and snugly fitting grille give the look of a high quality miniature, but the vinyl finish and light build quality quickly dispel this impression. Bear in mind though, that the 307s are priced at a competitive £299.99, so high marks for their pleasantly deceptive image.

Remove the grille, and the 307s still manage to carry off that ‘quality’ look. The injection moulded bass unit has its surround moulded directly onto the cone, which combined with the inverted dust cap lends it a smooth profile. The tweeter too is nicely made, with a shallow flare in the face plate to horn load the dome for higher efficiency.

Listening to the 307s proved an interesting experience. They’ve a strange presentation that conjures up a wide, spacious soundstage, but at times can disperse a performance, pushing it towards thinness. For example, The Stone Roses’ ‘Straight to the Man’ was deep and solid with good power behind Ian Brown’s vocals. But with the Throwing Muses’ fabulously dynamic and catchy ‘Snakeface’, Kristin Hersh’s voice became rather wispy and papery.

This continued with other female vocals, the Jamos loosing body and projection in the upper midrange, making them compressed and flat. Giuseppe Tartini’s Violin Sonata in G minor revealed a similar thinning and lightening of tone with violin. The lower resonances of the violin’s body were conveyed in a precise and articulate manner, but on higher strings the 307s were less convincing, struggling with the delicate harmonic structure.

The 307s were more confident at extremes of the spectrum. Bass was full and rounded, not especially deep but tuneful enough. I managed to successfully use them on a bookshelf, which is an added bonus, their uncritical positioning requirements making them very versatile.

Treble was clear and open, although not especially focused. This, along with the midrange gives them a delicate and detailed sound, albeit with rather imprecise and splashy imaging properties.

If this was the end of the story for the 307s, their strengths would make them worthy of recommendation. But a boxy resonance from the thin cabinet, provoked by upper strings of bass guitar or deep chesty vocals, acted against the 307. Even at low volumes the cabinet became excited, and at realistic listening levels this phenomenon became disconcerting.

So the 307s aren’t without problems. The thinning of tone in the midrange and boxy vibration detract from what’s otherwise a pleasantly open and articulate presentation. I suspect that the 307s would benefit strongly from sturdier cabinet construction, but there are always constraints in this area of the market.

There were enough good qualities to make the 307s worth a listen, especially if they’re to be used on a bookshelf.

Jamo 307
Jamo UK,
Jamo House,
5 Faraday Close,
Drayton Fields, Daventry.
Northants NN11 5RD
Tel: 0327 301300
£299.99

Measured Performance
see p105-111
Eric Braithwaite searches the airwaves with Rotel's new tuner, the RT-990BX. High on quality, he finds it much to his taste.
A seemingly ever-increasing supply of entrepreneurs - first Richard Branson and now Lord Hanson - are eager to make their mark on the airwaves. New broadcasting licences are being scattered about with the abandon of a sycamore tree scattering its seeds. If ever there was a time to take advantage of a multiplicity of radio stations, it has to be now. Yet the tuner is still the least regarded, and last purchased, of all hi-fi components.

This is a pity, since tuners have never been so good or so affordable. Rotel's latest offering is the RT-990BX and if any tuner alone could improve the audience figures, this is one of them. At the upper end of the marketplace, Rotel has its very desirable Michi, old gold, remote controlled and with rosy wooden end-cheeks. Now, in the middle, is a 'UK' version, priced at £500. In fact, this is not a 'Michi on the cheap', so much as a more cost-effective development of it. Although the circuit-board (plastic, as opposed to the Michi's glass fibre) layout is the same, the op-amps and resistors are cheaper components than the cost-no-object Vishays used in its more expensive brother. Some of the Michi's componentry in fact costs more than many tuner front-ends. Sound-wise, though, the two do have some common elements. The RT-990BX is more akin to Rotel's mid-price CD players and amplifiers, which it matches with its casework and external design.

Like the Michi tuner, the RT-990BX has a higher than usual output. While this meant a good deal of leaping about to adjust the volume when switching back and forth between this and my Quad FM4 when making comparisons, it also means a listener is not suddenly deafened when swapping between tuner and CD inputs.

Despite the increasing prevalence of RDS, Rotel has stuck to its audiophile guns and eschewed it in this FM-only design, while catering for the couch-potato with full remote control. Dual-purpose, this also operates the RC-990BX pre-amplifier.

In some respects, the new tuner makes few compromises. Switching out the 'Mute' function allows it to pick up a remarkable array of stations: given the right area and a big enough aerial, the Rotel proved to be one of the very few that could pick up a French classical station, albeit fairly crackly. More usefully, it added to the catch a number of weak local radio stations which are normally beyond the pale. In mono, maybe, but you never know where you might pick up something interesting. Fortunately, during the listening sessions, Radio 3 was re-broadcasting a Prom performance of Mahler's Symphony No 1 by the Cleveland and Christoph Dohnanyi. These are still the only real test of a tuner's musical capabilities. Between the Quad FM4 and the Rotel there was little to choose. The orchestra was perfectly spread between the speakers, instrumental tonality near-perfect, the dynamics in this symphony unrestricted. Like the Michi, the RT-990BX had the ability to pretend that loudspeakers hardly existed, with a curtain of sound in front of the listener.

Almost as good as CD, however, was Shirley Collins and the Albion Band, an old favourite of mine. Sparkling, bright, forward and vivacious, with Shirley Collins' husky voice caught perfectly and the Albion Band turning a living room into a folk club. Rock bands thrived on the Rotel's clarity of definition, punching rhythms into the room. As always, the only disappointment is the squashed effect the rock stations' compression engenders. Stick to Radio 3, Radio 4 and Jazz FM and the Rotel will have you falling in love with the ether. It's the price of twenty concert tickets, and for that you can listen to your own as though you are really there, every night of the week. That makes it a bargain.

Like the Michi, the RT-990BX had the ability to pretend that loudspeakers hardly existed, with a curtain of sound in front of the listener.

Measured Performance see p105-111

Rotel RT-990BX
£500
Gamepath Ltd.,
25 Heathfields,
Stacey Bushes,
Milton Keynes,
Bucks. MK12 6HR
Tel: 0908 317707
Next month's issue brings a host of all the latest hi-fi, including the long awaited replacement for the Marantz CD52SE, the 63SE. There are features to help you get the best from your system as well as news from the industry, readers' letters and Q&A, music reviews and more. Here's just some of what we hope to bring you in the May issue of Hi-Fi World.

**MARANTZ CD63SE**
The one the audiophiles have been waiting for. Marantz's SE version of the popular CD63 uses copper plated discrete output modules and a new oxygen free copper-wound transformer, amongst other improvements. Could this be another class leader from Marantz?

**AUDIOLAB 8000A Vs NAIM NAIT 3**
The latest version of the Audiolab 8000A has an improved power supply and specially selected components. The Naim Nait 3 is regarded as one of the best sounding integrateds around. So, we've decided to pit the two against each other to see who comes out top.

**MERIDIAN A500**
A sensitive floorstander from Meridian, the A500's use a pair of 6.5inch bass drivers coupled to a silk dome tweeter. Priced at £695 they look like a lot of loudspeaker for the money, see next issue for a full review.

**ORTOFON MC25F/L**
We test two of the latest MC cartridges from Ortofon. Both are based on the same body, but one using a special fine line stylus.

**ARM/CARTRIDGE GEOMETRY**
A practical feature explaining how to set up your arm/cartridge accurately.

**SBM OR VINYL?**
Is Sony's new SBM mastersound CD recording process all it's cracked up to be? We compare the original vinyl to the latest crop of SBM re-releases.

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Hi-Fi World is still only £2, but with more editorial than most rivals. With the most enthusiastic and expert editorial team in hi-fi journalism, can you afford to miss it? Make sure you don't by filling in this order form and handing it to your newsagent.
We’re all glad that at last the LP is being belatedly recognised for the fine sound quality it can provide. Nowadays it is becoming accepted wisdom that CD isn’t perfect and, as good as it may be in so many practical respects, there’s still plenty of leeway for improvement in sound quality. The race is on upgrade it, although in this audio has to take a back seat; video and computers command a larger market and are the driving forces behind technological change. All the same, the end result should be that sometime in the next few years we’ll be getting better sound quality from a higher specification CD.

We aren’t being blindly sentimental about the LP at Hi-Fi World. Quite the reverse. Technically it can be defended quite easily against the CD. A lot of the arguments about CD’s perfection are selective in their tilt, to say the least. Probably the most deceiving is the oft quoted 0.005% distortion figure. Many times I’ve got a distortion readout for CD - from a digital spectrum analyser I should add! - in excess of 100%. That’s pretty good going. Nothing invented before the CD ever managed to generate more than 100% distortion. The first time I saw this figure pop up on the analyser screen I nearly fell of my chair! I realised that the CD player I was testing at the time just couldn’t reconstruct the basic signal (fundamental) and was sporting walls of distortion instead. Perfection huh?

That wonderful 0.005% figure for CD exists only at maximum output, which musical peaks hit on the odd rare occasion. Below full output distortion increases progressively, these days to a worst case figure of around 30%, a least with carefully tailored test signals that give best case results. Real life performance with music is both more complex and - sadly - worse, so even these figures do not give an accurate picture of what we hear from CD. Clustering of the spectral lines of quantisation noise when music signals are phase coherent with the sampling frequency is an unnatural dynamic effect that almost certainly contributes to the hardiness or harsheness of its sound.

Expect all this to be ‘revealed’ as a new insight into the limitations of the today’s CD when it’s time to scrap the current specification CD.

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Reflections from Noel Keywood

Kaleidoscope
HOW TO GET GOOD STEREO - PART II

Noel Keywood describes how to position your loudspeakers for good stereo sound stage and imaging.

Some build their homes around the speakers, others dedicate a listening room to them. You don't have to be so extreme. In my experience you can make an ordinary living room sound really good with just a little effort and a few tweaks, plus some nice furniture.

Last month I talked about what to expect from stereo and about positioning the loudspeakers. This month I want to consider listening distance, since the impact of room effects depends upon how far away you sit, as well as the way the room is furnished and laid out.

LISTENING DISTANCE

If you read Part I last month, your loudspeakers should already be the right distance apart, but how far away do you sit? It's worth getting out of your armchair to check the effect distance can have and hear for yourself what I'm talking about. I've done a lot of crawling around many rooms in my endeavours to understand this one. Here's the nub of the problem.

When you sit close to a speaker you hear it as the manufacturer intended; when you sit a long way back you hear not just the speaker, but also a plethora of reflections from ceiling, walls and often the floor too. The two are quite different and neither listening position is, in extreme, satisfactory. Yet there is, in my experience, a boundary distance that you should be within for best stereo.

Sit close to a speaker - say a few feet - and you'll hear the tweeter acting as a distinct entity apart from the woofer; in speaker parlance they don't integrate. Only concentric or point-source speakers (Tannoy dual-concentric, KEF Uni-Q and Quad ESL63) overcome this. But sitting close is rarely convenient in any case; headphones are perhaps a better solution for this sort of listening, since they cut out room effects completely.

Sit too far away and you get messy treble and equally messy stereo imaging. That's because you are hearing more reflected sound from walls and ceiling than direct sound from the speaker.

There are two reasons. Reflected sound is random in its arrival time and there are multiple arrivals, a situation that's confusing to the ear and brain. Also, reflected sound is "dirty". By this I mean that it has a very ragged, variable and random energy content. If you listen to reflected sound you are, in effect, listening to your loudspeaker after its sound has been mangled.

This phenomenon plagues reflected sound loudspeakers, like the Canon Omnidirectional with its 'sound mirror'. You cannot reflect sound, even from a dedicated acoustical mirror, without roughing it up by selective absorption. This is the key reason for having a speaker fire straight at your ears; fidelity comes from direct sound, not...
reflected sound. That’s why speakers which bounce sound all round a room never catch on, remaining forever convenient mid-fi items.

How can you assess these reflections? Sit in your listening seat and look up at the ceiling. It’s a hard acoustic reflector: how close is it? Closer than your speaker? I hope not; chances are you are listening to your ceiling as much as your speaker - and you don’t want that. What to do?

There are a few practical solutions, but first try a check. Slowly move forward toward the speakers, a few feet at a time (this is where I use a small stool), stopping and listening as you go. Often you’ll find the sound snaps into clean and clear focus past one particular point. This test aurally illustrates the fact that as you increase the direct sound content from the speakers in relation to the reflected sound from your ceiling (or walls or floor), the sound cleans and clears, the stereo stage becoming sharply defined in terms of placement and image sharpness or focus.

TAMING REFLECTIONS

Now let’s look at solutions to the problem of too much reflected sound. You either sit closer to the speakers, which is the easiest solution if it is practicable, or you treat the reflecting surfaces. A large pendant lampshade in the middle of the ceiling will act as a diffusor, breaking the direct path of reflected sound. Keep away from metal and glass shades, because they reflect and ring. Try making your own lampshade of heavy fabric on a wire or wood frame, always bearing in mind that if it gets heavy it may need to be hung from a chain rather than the lighting flex.

Walls are best ‘broken up’ by irregular objects that act as diffusors, bookshelves being most widely quoted in this role. Alternatively, move LP and CD racks, plants or any other items of furniture that will help to break up the main reflection path and diffuse it around the room. If you suffer a bright or splashy treble where you are hearing strong reflections off the walls and ceiling, try cardboard egg cartons which will diffuse sound between 2-4kHz, where the ear is most sensitive. Just a bit of hardboard with the egg cartons stuck on it will do as a tester: hang it from a picture rail. I’d suggest 2ft x 2ft minimum size, up to 4ft x 4ft. This will give you some idea of whether you are on the right track or not.

CONCLUSION

Just remember that the direct/reflected ratio is determined by relative distances and that reflected sound is dirty. So, generalising, when listening keep away from walls, floors, and ceilings and don’t stray too far from the speakers. Be aware that the wall behind you is an unwanted reflector too; if you sit against it try moving forward a foot or two.

Even though reflections are dirty, absorbing everything is not a solution either. If you absorb too much sound, the room will go dead on you; some reflected sound is necessary to prevent this. It is more a case of controlling the diffusion of the sound than completely eliminating it.

Because every room is different it isn’t possible to provide specific rules. I’ve developed a fund of subjective techniques from my experience reviewing speakers and designing them for our kits, because we take room effects into account. It’s one thing to measure, quite another to listen - and the latter is very important. And remember too that carpet, heavy furnishings and long, heavy curtains all act as good absorbers. This means that a good listening room can also be a wonderfully well furnished, warm and cosy room too; the two aren’t mutually exclusive.
You may have noticed a few things different about this month’s HI-FI World. The changes are quite subtle, but we have made a great improvement to the overall readability and quality. The most obvious change is that the extra space this leaves allows us to write more thorough, detailed explanations of the performance of the equipment we test.

When we assess a product it’s auditioned by two or more members of the HI-FI World team. Between us we discuss its performance, and then the review is written by one of the listeners. But quite often a second listener has some valuable observations to make, drawn from their own experience and musical preferences. The extra room created by repositioning the Measured Performance section has given us the space to include more of these second opinions, which brings greater insight into performance of the product on test.

Before we review any piece of equipment, it is subjected to a rigorous technical test procedure. Here we find any faults that could lead to a misrepresentative review, as well as forming an idea of the kind of system most likely to reveal its best qualities. On a simple level, for example, if we measure a single-ended valve amplifier with zero feedback that has a power output of 10 watts, we know that to accurately gauge view its performance a loudspeaker of over 90 dB sensitivity with a smooth impedance curve is necessary. It may well sound satisfactory on loudspeakers with a wildly varying impedance, but here you are auditioning the way two products interact. We can warn of this potential problem.

Once we have measured a product, it’s listened to in several different systems by different listeners to gain a representative picture of its performance. These days we used two different types of references. Benchmark products in any category are often used within a system or as a basis for comparison. For example, Mission 752 HDA loudspeakers are used to remind us of the standard reached by good modern floorstanders, and also during amplifier reviews. But quality standards are needed too, such as Quad Electrostatics, making a great improvement to HI-FI World. The changes are quite subtle, but we have made a great improvement to the overall readability and quality. The most obvious change is that the extra space this leaves allows us to write more thorough, detailed explanations of the performance of the equipment we test.

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I always enjoy listening to headphones. I love the way they exclude all but the music, driving my eardrums with a wall of sound like a horn loudspeaker drives a room. They also allow me to play music at more realistic levels, without risk of further ruining the already delicate relations with neighbours and other household members.

I started listening to Sennheiser’s HD565s with Stereo MCs’ ‘Connected’. This is boppy club music that begs to be played loud, so it was an ideal choice for headphones. The 565s responded well, underpinning bass lines by giving them terrific depth and power. The bass guitar on ‘Playing With Fire’ seemed to have unlimited freedom to go down the scale to the deepest depths.

In the upper bass the HD565s have a healthy dose of punch and drive, giving pace to upbeat pop tracks such as Blur’s ‘London Loves’ which really kicked out. Damon Albarn was at home too with the Sennheisers, revelling in their transparent, uncoloured midrange. His voice projected clearly forwards of the instrumental backing to take up position in the front row centre seat of my head - a trick only headphones can pull off.

This uncoloured quality gives the HD565s a head start over just about any box loudspeaker, especially with classical music. Arcangelo Corelli’s ‘Concerto da Chiesa’ was a wonderful performance, the lack of colouration and precisely focused sound giving violins a naturalness and tonal accuracy rarely heard. Because a single diaphragm supplies the entire sound, there’s no character change as notes climb upwards, giving the HD565s a seamless quality reminiscent of Quad electrostatics.

In the treble, the light and agile diaphragm again pays dividends. Grant Lee Buffalo’s steel strung guitars had a crispness and clarity to them that took the whole album onto a different plane of enjoyment. In my experience it’s quite common to find headphone treble harsh, the sting sometimes making them fatiguing over long periods. The HD565s did extremely well here, with a sweet, delicate quality that although a whisker bright was never tiring.

Also in the 565’s favour was the remarkable amount of atmosphere they conveyed. Headphones don’t take advantage of reflections off room walls to create an impression of space like a loudspeaker; I found this aspect of the 565s especially gratifying. In the soundstage between my ears it was easy to pick out individual instruments and follow their melodies. The 565s separate instruments extremely well, remaining unconfused by complex passages, whilst still managing to convey them in an enjoyable manner.

At the start of this piece I mentioned the deep and powerful bass of these ‘phones. After a few hours it can become a little overpowering, lacking subtlety. Some of the articulation of acoustic bass was lost, leading edges being smoothed over to give a slightly muffled quality. I rectified this situation and got a more listenable balance by using the tone controls of the Audiolab preamplifier I was using. Amplifiers lacking good tone controls won’t prove so helpful.

At the end of the day though, this was just a small smudge on the large window Sennheiser HD565s open onto the music. Compared to loudspeakers at twice the price, the level of fidelity they offer is nothing short of astounding. Electrostatic type ‘phones may be smoother and deliver even more music, but for the money the HD565s are super value.

Sennheiser HD565 £129.95
Sennheiser UK
12 Davies Way,
Knives Beech Business Centre,
Loudwater,
High Wycombe,
Bucks. HP10 9QY
Tel: 0628 850811

WELL CONNECTED

Dominic Baker finds Sennheiser’s HD565 headphones a great way of getting connected to music.
On offer in this month’s Hi-Fi World competition is one of the top CD players available. Put simply, the DPA Enlightenment drive and convertor is one of the very best ways to play Compact Discs. It provides a level of musical entertainment that you rarely hear from silver discs. It communicates on an emotional level which draws you into music in a way few others can match.

The DPA Enlightenment is a two-box system featuring DPA’s proven Deltran sync-locking system, which sends a signal from the convertor to the transport telling it precisely when to send the digital data. This means that jitter, time smear produced when the transport doesn’t know exactly what the convertor is doing, is eliminated making for a smoother, clearer sound.

The Enlightenment convertor employs DPA’s DX32 processor, a discrete design which first appeared in more complex form in the gold plated £6000 PDM1024 convertor! In last month’s issue, Dominic and Noel greeted the Enlightenment’s simpler implementation with great enthusiasm. Indeed Noel, who doesn’t hand out praise lightly, was moved to call it "startlingly good".

To enter this competition, simply complete the questions and tie breaker opposite.

Please send your entry on a POSTCARD, or the back of a SEALED ENVELOPE, and completed in block capitals, to arrive no later than 5th April 1995 to:

DPA ENLIGHTENMENT COMPETITION
Hi-Fi World Magazine,
64 Castellain Road,
Maida Vale,
London. W9 1EX.

Don't forget to include your name, address and a telephone number so we can contact the winners promptly.
The lucky winners of the Arcam CD players are as follows:

1st Prize. Mr M. Chafer of Doncaster wins the Delta 250 transport and Black Box 500 Discrete convertor.

2nd Prize. Mr R. Walker of Co. Durham wins the Black Box 50 convertor.

3rd Prize. Jill Douglas of South Humberside wins the Alpha One CD player.

COMPETITION ENTRY QUESTIONS

1) What is the Deltran system designed to eliminate?
   A. digits  B. jitter  C. hum  D. music

2) What are Deltran’s audible benefits?
   A. a vast increase in bass  B. a bright, piercing treble
   C. a smoother, clearer sound  D. none to speak of

3) What else could you buy for the cost of DPA’s PDM1024 convertor?
   A. a Porsche 959  B. a 100 year Hi-Fi World subscription
   C. the Yucatan peninsula  D. a £6000 car

4) How did Noel describe the DPA Enlightenment drive and convertor?
   A. very agreeable  B. terribly ingratiating
   C. absolutely fabulous  D. startlingly good

TIE BREAKER (Obligatory)
DPA kills the jitter bug,
With its cunning Deltran link,
A seductive sound you love,
Beauty to make you think...

Complete the ditty above in no more than thirty words.

COMPETITION RULES AND CONDITIONS OF ENTRY

Only one entry per household will be accepted. Multiple entries will be automatically disqualified.

In the event of more than one entrant submitting all the correct answers, the winners will be picked from the tie breaker by the editor. We will endeavour to publish the results in the June 1995 issue. Purchase of the magazine is not a precondition to entry.

No correspondence about this competition will be entered into and the editor’s decision is final.

No employees of Audio Publishing Ltd. or any of the companies associated with production or distribution of the prizes may enter.

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  - A reference to all others; superb imaging qualities and transparent sound. Various

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**HI-FI WORLD**

**World Radio History**

APRIL 1995
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With the increasingly popular Bristol Hi-Fi show (Hi-Fi 95) upon us, the thought of yet another London-based show seems a little perplexing; that makes four in all. We already have the highly commercial Live events which have attracted massive attendance and greater public awareness of hi-fi separates. Let’s not forget Ramada either, which still attracts a good deal of international interest and has, until now, been the only affordable London show for smaller companies. The problem for many companies, however, is choosing between the two new Central London events. Being within a fortnight of one another, most companies simply can’t afford the capital or manpower needed to attend both of them.

The two new London shows are planned to run at the same time as Live 95, but cater for real hi-fi enthusiasts. This may make sense for show goers who can attend all three shows during a single visit to London. But for exhibitors it represents yet another baffling choice. I can’t see any exhibitors giving up the massive publicity and attendance rates of Live in favour of two untested events.

So what about the smaller (usually higher end) companies that normally exhibit at Ramada? In theory Ramada makes a lot of sense. As I said myself in the December issue of Hi-Fi World, last year, “...why on earth can’t they (Ramada and Live) be on at the same time? Better still, if the organisers got their heads together, specialist hi-fi could be moved into some of the rooms around Earls Court, or a nearby hotel”.

So what’s the advantage claimed by these new shows? It might be a bit tough for old Ramada, but they would allow small high end companies to exhibit at a new affordable venue, at a specialist show attracting Live’s visitors, whilst leaving the major players at Live. Brilliant! Unfortunately there’s a problem. The organisers of one new show have in their wisdom decided to christen it: “The A/V Event 95”. Oh dear! Despite deliberately trying to attract hi-fi companies and larger dealers, the organisers have alienated half of their potential exhibitors, simply through the choice of name. Ramada possesses the advantage that it has nothing to do with anything except hi-fi - it is a specialist hi-fi show. Therefore I can’t see the companies that currently exhibit there moving to a venue whose title is totally alien to the products they sell.

It would be a great shame if the organisers persist with “The A/V Event 95” name, as the new show does have great potential. To be held at the Cumberland Hotel, Marble Arch, it’s a prestigious location which has already played host to companies such as Goldstar and Hitachi during the Brown Goods Shows.

The layout of the hotel is also advantageous for a hi-fi show. There’s a large conference floor at ground level which can be accessed via the street. This consists of eight large rooms for demonstrations, plus a large floor space for exhibiting stalls. In addition to this, the show will consume the fifth floor, providing around 100 bedrooms and five suites. The idea of having two main “zones” is to reduce the likelihood of “dead spots” which visitors might miss. Something which other hi-fi shows could take note of, including Ramada, if the plan works in practice.

The sheer expanse of the Cumberland also leaves plenty of accommodation free for exhibitors (or at least those who can afford not to sleep with their kit!) and visitors. The service should be rather better than your average motel, too, with 24 hour room service and even the promise of a late opening bar for exhausted visitors to while away the small hours.

It’s a shame to see such capable planning potentially ruined by the choice of name and the type of exhibitions sought. The organisers make no bones about trying to attract companies from both hi-fi and “home theatre”. So in effect the new show appears to be trying to attract A/V from Live, rather than offering a base for specialist hi-fi companies that need proper demonstration rooms.

I understand that nothing’s been finalised yet, and the new show has yet to be promoted. So, hopefully, the organisers will have the good sense to offer the specialist hi-fi show that central London really needs. Let’s hope they do something about that name, too!

EDITORIAL FOOTNOTE: The organisers must have read Dominic Todd’s mind. We’ve just heard that the two new shows have now merged to form ‘Sound & Vision London’, which will run from 21st-24th September at the

Fair Views

- from Dominic Todd, our man in Scarborough

"...I wish the new show luck because, lets face it, the more representation hi-fi can achieve before an unknowing public, the better."
Arguably the best of the current British crop of girly bands (Echobelly, Sleeper, etc.), Elastica are built around the writing, singing and guitar talents of Justine Frischmann. Aided and abetted by fellow guitarist Donna Matthews, bassist Annie Holland and Justin Welsh (a bloke, this one!) on drums and "shouting", Frischmann has come up with an arresting distillation of easily traceable influence - primarily vintage punk clatter crossed with respectful tips of the cap to pioneers such as Debbie Harry and Chrissie Hynde.

Justine's other claim to fame is that she used to date Suede front man Brett Anderson, and now cohabits with Blur's Damon Albarn. This would be nothing but a cheap bit of gossip were it not for the fact that the album's opening cut has a strong Blur feel to it. That said, it's inevitable that two creative people are bound to bounce ideas off one another.

And it has to be said that 'Line Up', the group's second single release a year or so back, stands up as a toothsome slab of modern pop. With claws.

Even better, there's not a hint of Suede to be found, so Justine obviously has her musical as well as romantic priorities right. The sound is predominantly post-punk - dirty guitar chords and stampeding drums over which vocals are snarled, spat and delivered with admirably brattish hauteur. On the first few hearings it sounds under-produced, but then the hooks start to get you and it begins to feel like one of the first great pop records of the year.

'Connection', with its snotty delivery of sharp lyrics, busy guitars and a terrific booming bass fill is the record that gave the band its first real crossover from the indie to the national charts, a second Top Of The Pops slot and a well-deserved Single Of The Year 'Brat' award, courtesy of NME.

Other toughies like the pounding 'Smile' or the catchy fast-lane rock of 'Blue', are bound to be live favourites, while 'Allnighter' is an admirable tribute to classic Blondie. The current 45, 'Waking Up' is bound to be the band's biggest hit to date - all delicious Sixties guitar and bone-crusher hooks.

If the band fall down at all it's when they try and break their own formula - 'S.O.F.T.' is too dirge-like to be much more than a minor diversion, while the self-explanatory 'Indian Song' is just a mildly amusing re-run of the so-called Raga-Rock pioneered by the likes of The Byrds in the Summer Of Love.

So what? Two minor errors of judgement don't prevent this from being an exciting, effervescent debut. Not long now before gossips will be talking about "those blokes from Suede and Blur who used to play second fiddle to Justine Frischmann".

Giovanni Dadomo
THE HUMAN LEAGUE
Octopus
EAST-WEST 4509 98750-2

- Of all the Eighties revival bands - Adam Ant with a balder, skinnier Marco Pirroni, the dreadful Duran Duran and Lord knows what other leftovers, only Phil Oakey’s revitalised Human League are at all welcome. Having already proved themselves with twin chart smash in ‘One Man In My Heart’ and ‘Tell Me When’, Octopus re-emphasises the fact that The Human League banner carried some of the most innovative and influential sounds of the last decade.

I say Phil Oakey’s Human League because all the other original boy members left early on in the HL saga, and nobody outside of family and friends can ever say what the two pretties Phil works with are called anyway. Of course it doesn’t help one jot that Oakey first saw the nubiles in question dancing together in a Sheffield disco, promptly chatted them up and, lo The Human League’s second and most successful incarnation was made flesh.

No disrespect intended towards said female Leaguers, but it’s always been Oakey’s strong, distinctive vocal style that’s given the group its unique stamp, even in the cerebral days of their original release ‘Being Boiled’, as well as the obviously more mass-market work heard on the phenomenally successful ‘Dare’. So the ladies in question might just as easily be replaced as the boring geezers in Bucks Fizz.

Make no bones about it, this is very much Oakey’s band, and Octopus is a slickly infectious pop confection that’s bound to spawn at least a couple more hits. It features one of the year’s best titles to date (affixed to the instrumental ‘John Cleese: Is He Funny?’) and should keep Phil Oakey in clover for a fair few seasons to come. Not bad for someone who had funny hair and the good sense to (eventually) visit the barber. A manifest example of from hair to eternity.

P.S. (Politically Correct P.S at that): Phil Oakey’s collaborators in The Human League are of course the delightful Joanne and Suzanne. Only kidding, ladies!

BETTIE SERVEERT
Lamprey
BEGGAR’S BANQUET BBQ CD 169

- “By the time we get there we won’t know where we’ve been”, sings Carol Van Dijk on this ingeniously titled LP from Dutch rockers Bettie Serveert (the temptation to use the band name’s initials is strong - think about it), a quartet with a strong debt to the tangled emotions and matching tuneries of Throwing Muses.

I’ve always found foreign groups’ use of English vastly amusing, particularly when they get it really wrong. But BS (there, did it!) manage to overcome that particular hurdle, partly because Ms Van Dijk is Canadian born, but mainly because of the inspired guitar colourings of Peter Vissner, who manages to fuse echoes of the past three decades with an ease and delicacy rare in these days of the three-chord thrash revival.

Once you get over (or should that be if you get over) the strong resemblance between Carol VD’s (oops, here we go again) voice and that of Tanya Donnelly and half sister Kristen Hersh, this is a pleasant, if hardly earth shattering recording, that is by turns delicate, barbed and sensitive.

SEXPOD
Home
PLACEBO PILL MCD 6

- Cool name from yet another mixed-gender combo, hailing from the naked cities of New York and New Jersey. Sexpod are Karyn Kuhl (vocals/guitars), Alice Genese on bass, and drummer Billy Loose. Needless to say the vocals have that built-in scornful arrogance we associate with everyone from Johnny Thunders through Patti Palladin of Snatch, right up to the likes of Joan Jett or L7. It’s tough, sturdy, punksome rock that any fan of Peter Bagge (simply The Best funniest Cartoonist On Earth Right Now - check out his ‘Hate’ comics) could fail to respond to this brash mix of abrasion, guitar thunder and (hardly appropriate for a young lady, what?) downright filthy cockiness. A buzz, and on the strength of this spunky (hardly appropriate for a girl either) double, Sexpod are a name to watch. Catchy as a social disease but rather more beneficial.

PORTISHEAD
Dummy
GO BEAT 828-522-4

- Sorry to be a trifle late in mentioning this debut from Bristol’s latest biggies, especially now that it’s top of the charts. Truth be told, I actually went out and paid hard cash for this
CARTER USM
Worry Bomb
CHRYSALIS 7343 8.321172.2

• "The loneliness of the long distance drugs runner/Ends on a crowded Bangkok death row." Only Carter USM could come up with wordplay that. It's on 'Gas (man)', a typical example of Carter's ability to make a bitter-sweet piece of wordplay out of a theme as fresh as this morning's headlines. A fifth LP (plus a rousing freebie live disc from last year's tour of the former Yugoslavia) and it's more or less what we've come to expect from Jim Bob and Fruitbat, the duo now expanded with the addition of a live drummer, Wez. And sure it's pretty much the same mixture as before - clever words, catchy tunes, oodles of energy, anger and concern.

Along with Billy Bragg, Carter almost singlehandedly carried the torch lit by The Clash through the Eighties and Nineties. Recent singles like the rousing 'Let's Get Tattoos' and the uproarious 'Young Offender's Mum' were ample proof that both verbally and musically, the boys are still on the ball, hearts firmly in the right place. They spit on the music industry's trendier camp-followers, 'Me And Mr Jones', attack apathy, 'My Defeatist Attitude', 'The Life And Soul Of The Party Dies' and make a cynical sideswipe at orthodox religion in 'God, St Peter And The Guardian Angel'. In short, rapier wit, anthemic choruses, courageous and intelligent choice of subject matter.

Take the opening shot. 'Cheap 'n' Cheesy', a lament for love lost that features the line "I've got no family for my family car", a phrase as moving as any in recent pop. But it's not all gloom and misery: the two-part 'Airplane Food/ Airplane Fast Food' (a humorous comment on a torture we've all suffered) is a regular Carter stomp followed by a frenzied punk thrash The Ramones would have been proud of. And the closing 'Ceasefire' is as heartfelt a plea for peace as anyone has cut in years.

Carter USM may not be the trendiest of bands any more (if they ever were) but they're still relevant, quintessentially British pop craftsmen of the first order. 'Worry Bomb' is full of thundering good pop, words of wisdom and tunes that stick like leeches not fed in a month of Sundays. In other words, it's a gas, man.

one largely on the basis of a plethora of rave reviews. It turned out to be a repetitive wander through laid-back, slightly funk-up ambient territory. All ethereal (largely) female vox, bleepy, repetitious electronics and not a whole lot else. It's probably very relaxing and ideal for those with expensive in-car stereos - you know the sort of folks who like their music not too aggressive or intrusive. Why not? It's surely down to them if they want to enter the musical equivalent of a coma especially delivered with this sort of polish and panache. That said, this is music to orchestrate riots by, but then that's hardly the intention For some reason the name Enya springs to mind, if you get my drift. ZZZZZZZZ!

VARIOUS ARTISTS
Skynyrd Frynds
MCA MCD 11097

• Yet another tribute album, this time in remembrance of those good ole Southern boys Lynyrd Skynyrd, who almost single-handedly gave sleazy, bar-band rock'n'roll a licence to become a popular force in the mid-to-late Seventies. The collection is bookended by the band's two most famous songs - the creditable enough 'Sweet Home Alabama' by the imaginatively named Alabama, yes but there's no way Wynonna - strong vox or not - can hope to match the original totemic splendour of the late group's 'Free Bird' anthem. Some things are sacred and should not be touched. In between come the likes of the Mavericks (hot), Hank Williams Jr. ( tepid) and Charlie Daniels (venerable). But the whole affair's nothing to write home about, bringing the question "Why bother?" immediately and lastingly to mind.
The room with 'Stove', a cut from their
throwing Muses, Buffalo Tom, etc.
taste of past glories. Included are such
indie hallmarks as Belly, Dinosaur Jr,
Banshees and The The as with indie
succession of duets with Tricky are
complex and original, and at times they
appear to be battling to be heard.

Best moments other than 'Blue Steel',
are found on side B, with 'Suffocated Love'
and its classical

McALMONT
McAlmont
VIRGIN RECORDS

- Stranger things have happened in the
pop world! But if, as countless pundits
have predicted, David McAlmont goes
major this year, he'll be one of the most
off-beat, quirky acts to grace the charts
since the Bay City Rollers. Tipped as the
new Seal, but image-wise he's nearer
the two Georges - Boy and Clinton. His
weird camped up look - big fur, lipstick
and silly specs - really stands out. His
recent appearance on The Word is
testament to that. Nobody knew what
to make of him, except that he was
different. Prancing around like a pimp
on acid, he looked outrageously stupid.
Image aside, the debut single 'Either'
sounded good.

Following on from the scene carved
by Suede and Pulp, McAlmont's self-
titled debut album is a strange mix of
contemporary and '80s sounds. It's
weird and original and makes for an
interesting listen. Not everyone's cup of
tea, a lot of people are going to really
hate this record. But there's no doubt
McAlmont's got talent and this is a
powerful debut. His voice wavers eerily
from high to low as the album waxes
and wanes to its sad and twisted
conclusion. Hard to describe, hard to
 pigeonhole. Almost great. It's tricky to
know what to make of McAlmont. Lets go for "strange".

TRICKY
Maxinquaye

- If McAlmont's debut release is
strange, Tricky's debut Maxinquaye is
bizarre. The album is best summed up
by the opening lines of the haunting
'Abbaonfat' - a scary look at sexual
perversion and low morals, this song
stinks of decay and sadness. With
Tricky's gravelly, degenerate-sounding
voice rasping like an asthmatic Tom
Waits, the listener is defied to be
unmoved.

Unless, you didn't already know,
Tricky is a product and major player in
Bristol's enigmatic Massive Attack. And
the connection doesn't stop there. Two
of the tracks on Maxinquaye sit on
Massive's recent second LP, Protection
- 'Overcome (Karmakoma)' and 'Hell Is
Round The Corner' are further forward
than on the laid back Massive LP, and
both sound as good.

But the most notable track is the
current 'Blue Steel' single, an excellent
cover of Public Enemy's angry and
controversial 'Blue Steel In The Hour
Of Chaos', from their Nation Of
Millions LP. It's as unrecognisable here
as when Tricky recently aired it on The
Word. Starting slowly it suddenly turns
into a grungy, rocking track with a real
kick to it.

While many expected a dance and
roots-orientated LP, similar in vein to
fellow Bristolians Massive, Maxinquaye
is surprisingly original. Largely
experimental, it's as much at home with
positive punk stalwarts Siouxie and The
Banseheds and The The as with indie
darlings Portishead and Massive.
Borrowing from a host of influences, it
has an alternative, leftfield and generally
depressing feel - powerful stuff that can
swing your mood.

Tricky's co-singer, the elusive and
childish Martina has the sweetest but
scariest voice around. Floating and
trippy, her rich and varied melodies
make Bjork sound like a choirgirl. Her
succession of duets with Tricky are
complex and original, and at times they
appear to be battling to be heard.

Continued on page 81 ....
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It had to happen. With their "Best Of" series of compilations coming out over the last couple of months, the Virgin crew have really been begging the question. First Rock, then House, then Reggae, it had to be Punk next, didn't it? So here it is and this huge double CD offering is by far the best of the series. Largely because it's the first time 50 odd, so-called punk tracks have been slammed so violently onto one slice of plastic, but also because it's full of special moments.

Anthems, oh sweet '70s anthems! These are classic punk tracks built to last, the lot of them. One strange point is the marked absence of The Clash. But apparently Virgin couldn't clear the rights in time. But they make up for it with the inclusion of PIL's brilliant 'Public Image', and the Skids' 'Into The Valley', not forgetting the good old Jam.

Most sound as good today as they did back then. You can still appreciate the energy and anger on these great little tracks - 'Teenage Kicks', 'Ever Fallen In Love', and 'God Save The Queen' - in the late '70s these were the songs that really mattered.

With Best of Punk, you can still upset your mother and neighbours and crank up the volume. Or should it be deaf buy.

Eight years ago, an obscure collection of jazzers released 'Mission Impossible', a quirky, nostalgic trip through sixties mod movie soundtracks, at a stroke establishing the James Taylor Quartet as a premier acid jazz combo. They went on to make steamrollering, Hammond-driven funk their trademark, peaking with 1989's Wait a Minute, packed with manic organ grooves laced with some of the best tunes around.

In the Hand of the Inevitable sees the band on the newish Acid Jazz label, first amongst some highly accomplished equals in what's been dubbed the 'new wave of new mod'. The title alludes to their changing musical direction - although JTQ still have time for the odd Hammond groove or frantic instrumental workout, the emphasis is more and more on lilting funk stuffed with Philly strings and Stax brass sections.

With soulful vocals from Alison Limerick on 'Love Will Keep Us Together', it looks like JTQ are chasing mainstream success in the vein of The Brand New Heavies. But they haven't lost the humour of earlier material, with 'Whole Lotta Love' continuing the Acid Jazz tradition of outrageously funky covers of hard rock standards.

Whatever their intentions, James Taylor Quartet remain masters of bright, breezy modern dance music, and their latest outing sees them more focused than ever. In the Hand of the Inevitable will make its way into the best bars, cafes and jazz clubs the world over. You can almost taste the cappuccino now.

The Black Dog

Spanners

WARP

Popularised by The Orb and carried through the nineties by the likes of James Bernard and Pete Namlook, Ambient is yet another vibrant music to mutate from the eighties techno boom. With Spanners, The Black Dog have proved themselves one of its most accomplished exponents.

Darlings of the Internet and doyens of Fuji TV's 'Revolution B', their new-found fame has coincided with their most cohesive album to date. It's definitely a case of third time lucky - unlike the earlier, fussier Bytes and The Temple of Transparent Balls, this one brims with confidence and purpose.

Where others fall back on impossibly dense, heavy beats and stock samples to disguise a lack of creative vision, Spanners drifts effortlessly from silliness to some of the most trancey, effusive melodies ever committed to DAT. The Black Dog travel through techno's eclectic past, laying sparse dub beats under gentle shuffling textures - reminiscent of everything from Jimmy Cauty's Space to Andrew Weatherall's Haunted Dancefloor. Grabbing at hip hop and funk, playing with Rai and Bhangra, alluding to Greek mythology and cod science-fiction, it's not every day you see such breadth brought together in such an original, charming way.

Indeed, Spanners is Black Dog's best testament so far to their confidence with, and fluency in, electronic music.
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TERJE RYPDAL
If Mountains Could Sing
ECM 1554

A mixed bunch of new releases from the German ECM label this month, kicking off with one of the label's stalwarts. For over twenty years the Norwegian electric guitarist Terje Rypdal has been making records for the label, building a canon of work which stands as one of the greatest that any guitarist working in any branch of contemporary music has ever turned in. Rypdal has specifically combined jazz rock and chamber music on 1975's Mahvishnu-meets-Webern classic Whenever I Seem to be Far Away and the hope here is naturally that we'd get some of the same. Which is unfair. If Mountains Could Sing is no Whenever I Seem to be Far Away, but doesn't set out to be. Rather, it's a subtle blend of his recent chamber work like QED and Dionysus with the jazz rock of the Chasers, a jazz rock which is altogether slicker than that of Rypdal's 70s groups, but still a group of great verve.

Overall, this is ascetic, beautiful music, shot through with some of the most blazing guitar work-outs that Rypdal's produced in years; the ring-modulated, distorted solo that bursts out of the second track 'It's in the Air' - which should be the album's opener - is worth the price of the CD alone. Cracking stuff; I haven't enjoyed Rypdal this much in years.

DAVID DARLING
Dark Wood
ECM 1519

American cellist David Darling is one of the label's less well known stars, although he too has been making records for them - albeit far less prolifically than Rypdal - for well over a decade. Darling's work is rich, romantic, yet often rather bleak music which somehow avoids the all-too New Age tendencies of multi-instrumentalist and singer (and, of course, ECM labelmate) Sperhan Micus, yet is also less abrasive than the work of labelmate Paul Giger, whose solo records ostensibly have much in common with the multi-tracked solo work of Darling.

Dark Wood, a suite seemingly based on, or at least inspired by, "Disturbing the Night", a short story by Barry Lopez, works in much the same area as Darling's album Cello, released in the early nineties. Again this album sees Darling playing plaintive, elegiac, undeniably moving - yet never syruppy - solo lines against a backing of his own plush pizzicato cello chording. In truth, this isn't a great development from Cello, but with music this undeniably beautiful, who gives a damn? This is a fabulously enjoyable and highly recommended record.
Tunisian director Nouni Bouzid. They this group is in turn augmented with a group of musicians with whom he's worked in varying combinations over a decade and a half, he's best known for producing and one of the most virtuosic players the music has ever seen.

ANOUAR BRAHEM
Khomlsa
ECM 1561

- Tunisian Anouar Brahem is a master of the oud, a North African relative - and very possibly ancestor - of the lute. Like fellow oud virtuoso Rabih Abou Khalil, with whom it's impossible not to draw comparisons, Brahem has taken his musical skills and culture into a multi-cultural environment. With its heavy leanings on jazz and non-jazz improvising, it's a hybrid artform which genuinely deserves inclusion in the meta-world music which trumpeter, composer and music theoretician Jon Hassell has termed "Fourth World".

On last year's Madar he was joined by Norwegian tenor and soprano saxophonist and fellow musical border transgressor Jan Garbarek, to magical effect: that album featured some of Garbarek's finest and most unfettered playing for some time - a session which perhaps paved the way for Garbarek's further highly successful transgressions with Early Music specialists the Hilliard Ensemble.

On Khomsa Brahem is joined by a group of musicians with whom he's worked in varying combinations over the years: accordionist Richard Galliano, pianist and synthesiser player Francois Couturier, soprano saxophonist Jean Marc Larche and violinist Bechir Selmi. This group is in turn augmented with two further ECM mainstays, and one of the most accomplished yet underrated rhythm sections working in contemporary jazz: double bassist Palle Danielsson and drummer Jon Christensen.

Together this septet work their way through a set of Brahem originals which have previously seemed the light of day in the oud player's scores for the films of Tunisian director Nouri Bouzid. They do so in a vivacious and genre-gobbling spirit which takes in traditional North African melodies (naturally), Parisian street music and free jazz, and much more besides, matching their easy virtuosity to a music of great charm and yet great mystery. Intoxicating stuff.

PAUL BLEY/EVAN PARKER/BARRE PHILLIPS
Time Will Tell
ECM1537

- And wrapping up what I reckon is the most satisfying set of new releases ECM has produced in a good while is a trio session featuring, quite simply, three of the greatest names working in jazz today.

American pianist Paul Bley has been a regular in this column, one way or another. A leading pianist in contemporary jazz for over three decades, he emerged in the early sixties as very much a post-Bill Evans piano player, whose gentle lyricism was tinged with the threat of more violent musical tendencies. In the subsequent years he has developed both of these musical sides in tandem and his records as both a sideman and leader reveal an improviser equally at home in free jazz and post-bop jazz and one who combines an easy grace with a splendid furor.

Barre Phillips is without doubt one of the finest bassists working in contemporary jazz. An alumnus of groups as famous and as diverse as those of Coleman Hawkins, Ornette Coleman, Jimmy Giuffre, John Surman and George Russell, like Bley he straddles the lyrical and the experimental with great musical confidence.

British soprano saxophonist Evan Parker should need no introduction, of course. There can be little doubt that Parker is one of the greatest jazz musicians this country has ever produced and one of the most virtuosic players the music has ever seen. Although he's been a regular in just about every style of music that European jazz has touched over the last decade and a half, he's best known for work in two areas: for his involvement with the most extreme European free jazz, a music which in the late sixties married political idealism to artistic imperative and ostensibly severed all links with jazz history, producing a non-idiomatic, entirely spontaneous sound which at once galvanized a small community of the most adventurous musicians and listeners and alienated just about every bugger else; and for his increasingly huge body of solo work, in which he has developed his virtuosic (he's renowned for his circular breathing techniques which allow him to play continuously and for overtone playing which let him play polyphonically), chromatic, stream-of-consciousness soloing into one of the most consistent and adventurous voices in jazz today.

Remarkably, Bley and Parker have never played together, although both have played with Phillips in numerous and varying groups. But you'd never guess it from the results. Time Will Tell sees the trio work through eleven free improvisations which are the flip-side from the music that Parker has so often made with European noisemakers like Peter Brotzmann and Han Bennink and Albert Mangelsdorff and on and on. This music is equally spontaneous, equally searching, but has such a great debt to late-Romantic (and particularly late Romantic French) music that it never loses its grip on lyrical melody. Instead the group slip and slide their way through and endlessly shifting - and hugely restless - musical world in which consonant melodies momentarily, fleetingly appear and then, just as suddenly, and entirely unresolved, disappear.

Ultimately, this music, for all its essential quiet thought, is as discomforting and as provocative as anything in any European free jazz. A sublimely questing record.

CASPAR BROTMANN
MASSAKER
Home
ROUGH TRADE RTD 195.1913.2

- Having mentioned one Brotzmann above, it's only fair to mention this latest offering from German improvising metal guitarist (and, yes, son of free jazz god and saxophonist Peter). Whether a Massaker record belongs here is a moot point, but until this publication, or any other for that matter, starts up a free jazz/death metal/goth improv/guitar murder column, we'll have to stick it here.
jazz record reviews

This column has been full of noisy guitarists from Japan and America and Europe and frankly Brotzman sits with the best of them. Some commentators have pointed out that Brotzmann has reinvented the electric guitar, turned its conventions inside out, yet it's closer to the truth to say that he has simply taken the cliches of rock guitar - of Hendrix and Blackmore and Black Sabbath and Blue Oyster Cult - and at once taken them to one of their possible extremes and then fed them through his own psychotic free jazz background. The results undoubtedly make him one of the most exciting guitarists on the planet. Check him out.

Simon Cooke

TIM RICHARDS' SPIRIT LEVEL
On The Level
33JAZZ021

The concept of a jazz band described in publicity-parlance as 'modern' and 'eclectic' - both words used to describe Spirit Level in the liner notes - as actually being much cop is not one with which I have much truck, for various reasons. To find my initial doubts about this CD dispelled within the first two or three seconds of track one came as a welcome surprise.

The CD simply romps out of the 'speakers and across the room with child-like exuberance, but such power doesn't mask ineptitude - pianist Tim Richards plays like a hammering metronome, working fluid, tuneful chords around solid rhythmic timing. Jerry Underwood's tenor sax blows like Ariel (Shakespeare's, not Lever Brothers') through the proceedings, while his soprano has the sweeping cadences of Garbarek's with a more astringent, tendonous tone. Bassist Kubryk Townsend is a revelation of solid rhythm and throbbing chords, keeping the tone in those full-blooded regions where the bass belongs rather than straining upwards into flapping woodiness.

Kenrick Rowe on drums skitters through the proceedings and bounces rhythmic devices with Richards and Townsend with stunning ease. None of the performers are over emphasised, none ignored.

It's ten tracks of cracking rhythmic, melodic, swinging modern jazz. Oh, and the recording? Well, it's 33Records, so it's excellent. What did you expect?

THE CLARK TRACY SIXTET
Full Speed Sideways
33JAZZ018

Similar in type, if not style, to Tim Richards' Spirit Level, with Tracy's drums augmented by Nigel Hitchcock on alto sax, Dave O'Higgins on tenor, Mark Nightingale on trombone, John Donaldson on piano and Arnie Somogyi on bass.

Excellent as all these musicians are, they just don't have the ebullience of Spirit Level, and with three tracks and almost seven minutes less music, this one doesn't quite cut it.

That said, it's still a '33' quality recording of an excellent group, and heartily recommended.

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Down Freedom Avenue
BWR051

An album of 'South African Jazz' from the 'international jazz' stable of B&W (the 'speaker people) Music and, like many other forms of 'global' jazz, it sounds like a take on the American variety flavoured with local influences. Happily, it's saved from ignominy by the past work of bands like Ladysmith Black Mambazo and the Bhundu Boys, who have managed to raise the profile of South African music in the wake of Paul Simon's 'Graceland' success a decade ago.

Gumede and the musicians on this album - made of real vinyl - have scattered enough SA influences around for the average world music punter to be able to follow them and based it solidly enough in the jazz idiom to produce an impressive jazz album.

Whilst the performances are excellent and the recording quality high, however I found the pressing, although better than many LPs, very noisy. Despite adjustments and checking of the Rega I was using, surface noise remained at distracting levels in the common quieter passages. Anybody more cynical than myself might be tempted to think that B&W are aiming to appear vinyl-friendly while weighting the scales in favour of CD sales. I don't know, I didn't hear the CD, but B&W should have harsh words with their pressing plant before their next vinyl release! Recommended, nonetheless.
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ARMANDO SOUNDS & VISION, 10 Boldmere Road, Sutton

Any resemblance between these pages and ‘Songs of Praise’ is entirely coincidental! It is simply that some rather fine recordings of sacred music have come my way of late, hence the appearance of Moses, Daniel and Belshazzar, choral masterpieces of the eighteenth and twentieth centuries, and a medieval liturgical drama. To restore the balance though, there’s an iconoclast among the icons, that most individual of pianists, Glenn Gould.

JOHANN SEBASTIAN BACH
Mass in B minor BWV232
Catherine Dubosc, Catherine Denley, sopranos; James Bowman, counter-tenor; John Mark Ainsley, tenor, Michael George, bass; The Sixteen; Orchestra of The Sixteen; conductor, Harry Christophers.

COLLINS CLASSICS 70322 (2 CDS)

Whether sacred or secular, Bach’s music was functional. He wrote concertos for his patrons and liturgical music to meet the requirements of his ecclesiastical employment. That it was also music of genius was a bonus. In his last years however, evidence points to Bach seeking to write works that would somehow sum up his whole musical ethos. He may not have been consciously leaving a legacy to posterity, but he was acutely aware of his own heritage and the strong traditions of the Bach family, which had been making music in Germany for generations. Therefore, we see the appearance of works such as The Musical Offering, the Goldberg Variations and the compendious Art of Fugue, where just about every compositional technique at Bach’s disposal is deployed.

But was the B minor Mass also part of this summation of a life’s work? The evidence would seem to bear this out. In practical terms, the Mass would have been unacceptable to both the Lutheran and Catholic Churches. The Lutherans used only the Kyrie, Gloria and Sanctus of the Latin rite and Bach’s textual amendments would have barred the work from use in Catholic services, apart from which the festive music of the Osanna and Benedictus would have been wholly inappropriate during the reverential atmosphere of the distribution of Communion. The mystery deepens when the origin of the individual sections of the Mass is explored. The Sanctus is thought to date from the 1720s and may have been first performed at Christmas 1724.

The Kyrie and Gloria were first heard in Dresden on April 21, 1733, on the occasion of the taking of the oath of fealty by the new Elector of Saxony. The Credo - the Symbolum Nicenum - may have been composed for the re-dedication of the rebuilt St Thomas’s School in Leipzig on June 5, 1732.

All of this may suggest that the B minor Mass - one of the cornerstones of western music - is something Bach cobbled together in his declining years from bits-and-pieces he happened to have lying around! And, using rather more academic terminology, that is still a theory propounded by some musicologists. However, this overlooks the unassailable evidence of both musical and structural unity within the work. True, it was ‘assembled’ mainly from existing compositions but such recycling was wholly acceptable in Bach’s time, when there was much less emphasis on originality. It cannot be an accident that we have a complete Latin Mass, in the correct liturgical sequence and utterly consistent in its performing forces and key. And surely the reappearance of the Gratias from the Gloria in the concluding

Continue on page 94 ....
JOHANNES BRAHMS
Piano Quintet in F minor Op34#
ROBERT SCHUMANN
Piano Quartet in E flat Major Op47*
Glenn Gould, piano; members of the
Julliard String Quartet*; Montreal String
Quartet#
SONY CLASSICAL SMK52684 (ADD/65.07)

- Chamber music playing is generally
  assumed to rely on collaboration; for
  Glenn Gould, it appears to have been
  more confrontation. The late 'fifties
  found the young Canadian pianist at his
  most temperamental: recording projects
  were abandoned because he was finding
  the repertoire 'boring': studio sessions
  were frequently cancelled at short notice.
  Yet, during this period, Gould discovered an
  unexpected affinity with the music of
  Brahms. He included the Intermezzi in
  his recitals and played the First Piano
  Concerto in concert on at least ten
  occasions. Gould also performed five of
  the chamber works: the Violin Sonatas in
  G Major and A Major, Opp78 and 100;
  the Cello Sonata in E minor Op38; the
  Piano Trio in C minor Op110; and the F
  minor Piano Quintet Op34.

  Founded in 1935, the Montreal String
  Quartet had rapidly established itself as
  one of the finest chamber ensembles in
  North America. So the concert on
  August 20, 1957, in which the quartet
  was joined by Glenn Gould to play the
  Brahms Op34, must have been eagerly
  anticipated. What the audience and radio
  listeners made of the performance can
  only be imagined. From the outset, it
  is clear that Gouldand his colleagues have
  very different ideas about the underlying
  mood of the work; the strings seek the
  traditional, lyrical approach while Gould
  opts for a crisp, classical austerity. And it
  is Gould who dictates proceedings; his
  view of the work prevails and the
  expansive tendencies of the strings are
  reined in. Any opportunity to project
  warmth and intensity is eagerly seized,
  witness the broadening of pace at the
  end of the andante as the main theme
  returns.

  At Gould's tempo, the scherzo takes
  on an almost martial quality and the
  tension between the players is almost
  palpable, which explains the fiery passion
  of the finale, where the playing of both
  quartet and pianist is electrifying. The
  recording is a remarkable document:
  provocative, certainly, but - at a time
  when many modern recordings seem so
  bland and synthetic, even 'safe' - charged
  with personality and drama.

  This was to be the last collaboration
  between Gould and the Montreal String
  Quartet. Whether this was a direct
  consequence of the divergence of views
  on the fundamental nature of the Brahms
  Quintet, or a more general antipathy
  between the performers is not known.
  Coming two years after Gould had signed
  an exclusive recording deal with CBS, the
  tape of the Brahms performance made by
  the Canadian Broadcasting Corporation
  was precluded from release on LP. This
  is its first authorised appearance in any
  format and, while the sound is very
  forward, it does have an immediacy
  which suits the interpretation; no glowing,
  long-breathed lines here, floating off into
  an airy acoustic. Closely integrated with
  the strings, Gould's piano-playing
  dominates the texture, but not to the
detriment of all else.

  Much less controversial than the
  Brahms is the studio recording if
  Schumann's E flat Piano Quartet which
  Gould made in 1968. Here, he is joined
  by three members of the much-revered
  Julliard String Quartet - Robert Mann,
  violin; Raphael Hillyer, viola; and Claus
  Adam, cello. Although the performance has
  none of the inner turbulence of the
  Brahms, there appears to have been a
  deepening and ultimately irreparable rift
developing between Gould and the
  Julliard at the time of the recording.
  Perhaps here, while there was a meeting
  of minds when it came to points of
  interpretation, the personalities of those
  involved remained incompatible.

  Surprisingly, Schumann did not figure
  in Gould's solo repertoire. He had played
  none of his music before this recording,
  and was to perform nothing more by
  Schumann in the rest of his career.
  Tantalisingly, the CBS session
  notes suggest that this performance of
  the Quartet was to have been coupled
  with one of the magnificent Op44 Piano
  Quintet; if so, it became another of
  Gould's cancelled projects and, when the
  Julliard did record the Piano Quintet, it
  was with Leonard Bernstein at the piano.

  Whatever the prevailing tensions at
  the time of the recording, this
  performance of the Piano Quartet fizzes
  with vitality, urgency and involvement.
  Whatever Glenn Gould himself may have
  thought about 'boring' repertoire, that
  description could never be applied to his
  playing. Neither the Brahms nor the
  Schumann qualifies for the 'library
  recommendation' status, but the
  challenge presented, especially in the
  Brahms, deserves to be investigated, if
  only to confirm that tradition for once
  may still have it right.
ALEXANDER GOEHR
The Death of Moses Op53
Michael Chance, counter-tenor; Stephen Richardson, baritone; Sarah Leonard, soprano; Gautam Ranganjan, tenor; Paul Robinson, bass; Sawston Village College Chamber Choir (conductor, Ian Macleod); Cambridge University Musical Society Chorus (soloist, Lynette Levitt); instrumental ensemble; conductor, Stephen Cleobury Unicorn-Kanchana.

DKP(CD)9146 (DDD/55.25)

- Alexander Goehr was born in Berlin in 1932, the son of the conductor, Walter Goehr, but his family moved to England when he was just a few months old. His colleagues at the Royal Manchester College of Music between 1952 and 1955 were Harrison Birtwistle and Peter Maxwell Davies and, like Davies, Goehr’s early compositions explore the kinship between medieval techniques and twentieth century serialism. After Manchester, Goehr studied with Olivier Messiaen in France and came to prominence in the early 60s with two highly individual works, the cantatas Sutter’s Gold and The Death of Moses, with its high-speed use of spatial relationships and its thirteen-piece instrumental ensemble consisting of flutes, saxophones, trombones, harp, keyboards, bass guitar and percussion. Goehr describes the instrumentation as “Monteverdi as heard by Varese”, with the saxophones the equivalent of the Baroque cornetti and the bass guitar playing the role of a “latter-day archlute”. There is certainly no lack of colour or contrast, and the same can be said of the voices with, in particular, the counter-tenor Michael Chance making an outstanding contribution to this recording.

In The Death of Moses, Goehr has succeeded in combining a striking originality with simplicity and directness. It is music that is at once accessible and involving, and ultimately rewarding, and thoroughly worthy of a place in the English choral tradition. This recording, made with assistance from the Arts Council and the John S. Cohen Foundation, is full of vitality and commitment and is keenly directed by Stephen Cleobury, who seems utterly at ease with the music of Darius and his cast into the lions’ den and safe-keeping by the angel; and, finally, his prophecy of the advent of the Messiah.

No-one can vouch for the absolute authenticity of this performance by New York’s Early Music Ensemble, but that is largely irrelevant. What matters is its impact on contemporary ears, which is utterly compelling. Some of the passages - the Entry of Darius’s Court and the episode in the lions’ den, for example - are spectacular in their colours and effects.

This recording of the Ludus Danieli was made in 1986 in the Church of Santa Sabina in Rome and the booklet helpfully provides a ground plan of the church to help the listener visualise the action. But I felt the presentation could have been better, perhaps with more photographs taken of the performance, and certainly by the provision of texts to allow the drama to be followed exactly. However, this should not distract from what is a terrific recording, one with its fair share of surprises.

If my interpretation of the technical information - in Italian only - is correct, then two recordings were made: one using a Sony PCM1 630 to produce a digital master for the CD and the other employing a Studer - of the valve variety! - to generate the master tape for the vinyl LP. Sadly, the latter was not supplied for comparison - it might have proved illuminating.

Illumination, of course, was the purpose of the Ludus Danieli and, in that respect, it must have worked wonderfully well in medieval France. Thanks to the Early Music Ensemble, that impact has successfully transcended eight centuries.

Incidentally, if you do invest in this Fone CD, I would recommend, if feasible, checking track 7 - the review copy exhibited a pronounced glitch which was impossible to identify as either a ‘one-off’ or as an inherent mastering problem.

DAVID AND THE LIONS
(LUDUS DANIELIS)
Ensemble for Early Music; director, Frederick Renz
FONE 88F.09-29 CD (DDD/70.37)

- It is twelfth century France and the Christian clergy is charged with spreading the gospel to a largely iliterate and ignorant populace. How to do it? One method was to convey the Biblical message in a way that all could respond to, by acting out the stories with a suitable musical accompaniment. Enter the medieval liturgical drama. It was distinguished from the later mystery, or miracle plays by being performed exclusively by the clergy, the dialogue in Latin rather than the vernacular, and by being staged within a church or cathedral.

The most famous of surviving liturgical dramas is Daniel and the Lions (Ludus Danieli) which history suggests was first realised by the scholars of the Episcopal School in Beauvais around 1140. It is a wonderful piece, full of dramatic effect and with a musical part rich in melody, colour and rhythm. The subject matter consists of familiar episodes from the Old Testament Book of Daniel: Belshazzar’s sumptuous banquet, the writing on the wall; Daniel’s interpretation and reward for his prophecy; Belshazzar’s defeat by Darius; Daniel’s appointment as Darius’s regent; the envious counsellors’ plot against Daniel; his casting into the lions’ den and safe-keeping by the angel; and, finally, his prophecy of the advent of the Messiah.

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In recent years we have become accustomed to musicologists cutting a swathe through the blithe assumptions of performing tradition in an effort to get closer to a composer's original intentions, and to allow us to hear a familiar work free of the distortions and accretions of time. The effort has largely concentrated on Renaissance, Baroque and Classical periods, sometimes with startling results and sometimes coming up with decidedly tenuous theories. It's only to be expected that scores from three or four hundred years ago would suffer at the hands of editors, copyists and revisers, and that our notion of performance would have to be based on a mixture of scholarship, intuition and inspiration.

More recently, the nineteenth century throws up several examples of doubtless well-intentioned but ill-conceived 'revisions': the monumental approach to Bach performance, for instance, quite at odds with the nature of the music; Rimsky-Korsakov's sanitising of Mussorgsky's stark, raw sonorities; and most indefensible of all - the crude editing of Bruckner's symphonies.

In the twentieth century, we like to feel we are more enlightened, more sensitive than our predecessors in this respect. Moreover, the accuracy of documentation is such that there can surely be no doubt that, when a modern work is played, it's the right version that's being performed. In general you would be right to think that but, as the musicologist Paul Wingfield has demonstrated even our own century has the capacity to deliver the occasional surprise to music scholarship.

LEOS JANACEK
Msa Glagolskaja
(Glagolitic Mass)
ZOLTAN KODALY
Psalmus Hungaricus Op I 3
Tina Kiberg, soprano; Randi Steine, alto; Peter Svensson, tenor; Ulrik Cold, bass; Per Salo, organ; Copenhagen Boys’ Choir; The Danish National Radio Choir; The Danish National Radio Symphony Orchestra; conductor, Sir Charles Mackerras.
CHANDOS CHAN9310 (DDD/62.44)

According to Paul Wingfield, for the past sixty five years or so, the world's conductors, orchestras and choirs have been performing an adulterated version of Janacek's glorious Glagolitic Mass. However, it's not some misguided or careless editor that we have to point the finger at, but the composer himself, or more accurately, the circumstances of the first performance. Around 1907-08, Janacek began work on a setting of the Latin Mass in the Missa Brevis style. But the idea was abandoned and the sketches were laid aside for some seventeen years until he was once again attracted to the challenge. This time however, not only was the work planned to be of a much greater scale, but instead of the Latin, Janacek employed Old Church Slavonic, the literary language established in his native Moravia in the ninth century by the missionaries Cyril and Methodius. The term 'Glagolitic' derives from the ornate script which the missionaries devised for the language.

The first drafts of the Mass were prepared by August 1926 but extensive revisions saw the relationship to the 1907-08 sketches diminish considerably. By any measure, the end result was a choral masterpiece of striking originality and impact. The first performance was scheduled to take place in the composer's home town of Brno in December 1927 under the baton of Jaroslav Kvakil. As rehearsals progressed it became clear to Janacek that there would be insufficient instrumental resources in Brno to meet the demands of the score and that, for all their enthusiasm, the provincial singers weren't going to be up to the task. To salvage the performance, he made substantial revisions to the score. Unfortunately, these changes - surely intended only to be temporary - became permanent when the full score was published in 1929, the year after Janacek's death. And it is this somewhat diluted and less audacious version of the Glagolitic Mass which has been performed ever since. However, diligent research by Paul Wingfield in Brno and Vienna has allowed him to 'reconstruct' the score following Janacek's original intentions and, as this first recording vividly demonstrates, the effort was wholly justified.

The differences are many and varied. Janacek simplified rhythmic structures and changed time signatures to make things easier for the Brno performers. There are fourteen extra bars in the 'Svet' ('Sanctus') and the organ solo that prefaces the 'Raspet' ('Cruixifus') is punctuated by explosive interjections played principally by three sets of pedal timpani. The overall effect of the 'reconstruction' is to intensify the dramatic impact of the Mass - witness the apocalyptic music of the Crucifixus.

There could be no better choice of conductor to bring Janacek's 'new' score to life than Sir Charles Mackerras whose understanding of Janacek's musical idiom seems intuitive. Using Danish forces (the recording was made in cooperation with the Danish Broadcasting Corporation), he produces a blazing performance that reaches to the heart of this extraordinary work. The orchestral playing and choral singing are outstanding and if I have a criticism, it is that the soloists do not always sound entirely comfortable with the Slavonic texts. However, the end result is a thrilling realisation of the Glagolitic Mass as Janacek conceived it and it's hard to see how anyone could henceforward use the revised version in performance or recording. We shall see.

Along with the Janacek, Mackerras offers a splendid performance of a highly-appropriate coupling, Kodaly's Psalmus Hungaricus, written in 1923 to commemorate the fiftieth anniversary of the coming together of the three cities which form Budapest. This was Kodaly's first large-scale composition but he handles the orchestral and choral forces with confidence and imagination and a keen sense of structure. The text comes from a sixteenth century religious poem, itself based on Psalm 55, but whose message of retribution for persecution would have had a contemporary resonance in a Hungary still full of bitter memories of the First World War. In typical Chandos fashion, the recorded sound is full, with an impressive scale and projection, and entirely apt for the brilliance of this music.
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THE ART OF ELECTRONICS, by P. Horowitz and W. Hill. £35
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THE ART OF LINEAR ELECTRONICS, by J. Linsley-Hood. £16.95
Concentrates specifically on analogue electronics for audio and goes into detail on obscure topics like the drawbacks of feedback, as well as its advantages. Covers mainly solid state but also includes valves. A must for serious enthusiasts and budding designers.

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Volume Three - August 1952 to June 1955
Seven power amplifiers, eighteen preamps, twelve loudspeaker designs, including four hom types and binaural recording techniques.
Summary of Contents: Simple valve phono stage, transformerless amplifier using 6082, 20watt 5881 amplifier, 10watt 6V6 amplifier, stereo valve preamp, high quality valve phono stage, a preamp for the Williamson, low distortion tone control preamp, binaural or stereophonic?, transistor phono amp, corner horn loudspeaker, concrete horn loudspeaker.

Volume Four - July 1955 to December 1957
How to plan an audio system, twelve amplifiers and preamps, solid state techniques and circuits introduced and six loudspeaker designs.
Summary of Contents: Ultra linear 6L6 design and operation of the Williamson, a direct coupled amplifier, Williamson type amplifier using 6AS5, 40watt 845 push-pull amplifier, valve phono and line preamps, valves and loudspeaker damping, design and construction of reflex and horn loudspeakers.

Volume Five - January 1958 to December 1959
Stereo comes to full flower with four FM Multiplex decoder designs, seven power amps, eleven preamps, a commercial killer, five loudspeakers, and theory articles by Olson, Crowhurst and McProud.
Summary of Contents: Stereo valve multiplex decoder, 7watt EL84 amplifier, valve active crossover and 20watt treble amp/50watt bass amp., monaural, binaural, monophonic and stereophonic explained, heterodyne FM multiplex adapter, transistor preamp, 60watt EL34 amplifier, high power audio amplifiers, hi-fi loudspeaker enclosure.

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MEASURED PERFORMANCE

It's important to measure products to assess performance, find explanations of sound quality and warn of peculiarities or faults. Only Hi-Fi World has an advanced in-house laboratory with digital signal analysis for this purpose. In conjunction with this facility we assess sound quality in our own acoustically treated listening room. We measure most products reviewed. Here's a simple guide on our test results.

LOUDSPEAKERS
Smooth, flat frequency response is important to ensure a balanced sound. Look carefully at overall trends; rising treble will give a bright sound, falling treble a dull sound. A rise through the midrange normally corresponds with good projection.

High sensitivity (better than 86dB) means less power is needed for a certain volume, meaning a low power amp can be used.

The impedance curve tells us how easy loudspeakers are to drive. Low or wildly varying impedance is bad; a flat impedance around 8Ω is good.

CD PLAYERS
Even small trends in frequency response of CD players can effect their subjective balance. Generally, those with a gently rolled off treble and, more rarely, a rising bass will sound best. Rising treble can produce a sharp sound. High distortion at this level, combined with rising treble can result in a harsh sound. Yet other effects have to be considered, especially low level linearity, which we also test for, including -90dB signals with dither applied.

AMPLIFIERS
The lower the distortion, the smoother an amplifier will sound. Distortion from solid state amplifiers should be no more than around 0.2%. Even order (2nd, 4th, 6th etc) distortion is aurally innocuous, but odd order (3rd, 5th, 7th etc) distortion makes for a glassy hard sound, or grittiness.

Frequency response can be band limited, with bass and treble rolled off just out of the ear's range, or wideband. Each has its own characteristics. Small wideband response variations colours tonal balance.

Power output is easy to understand: the higher the figure, the louder it will go. Just looking at the figure is not enough, there needs to be more than 0.1% speed error and hiss in the replay amps lower than -58dB.

Recording quality considers frequency response, bias variation, head performance and alignment. Frequency response should stretch from 40Hz-10kHz or so. Head overload (MOL315) must be above 0dB, reaching around +4dB for good results.

From the transport mechanism look for less than 0.15% wow or flutter. Overall (DIN weighted) wow and flutter should be no more than 0.1% or so.

CASSETTE DECKS
Replay performance is measured to IEC 94 Standards using IEC test tapes. This ensures that recordings made on a machine transfer to a car player, personal stereo or another domestic recorder properly, as well as ensuring optimum results with commercially prerecorded tapes. Look for a quoted replay response of 40Hz-10kHz, no more than 1% speed error and hiss in the replay amps lower than -58dB.

Recording quality considers frequency response, bias variation, head performance and alignment. Frequency response should stretch from 40Hz-15kHz or so. Head overload (MOL315) must be above 0dB, reaching around +4dB for good results.

From the transport mechanism look for less than 0.15% wow or flutter. Overall (DIN weighted) wow and flutter should be no more than 0.1% or so.

AMIPLIFIERS

FIVE AMPLIFIER TEST

PRO-JECT 7
The Pro-ject has a beefy power supply, demonstrated by its ability to nearly double from 36watts into 8Ω to 64watts into 4Ω. It will cope with difficult loads with ease. The disc stage has a warp filter at 24Hz, giving a little protection to the loudspeakers, but also providing deep and powerful bass from LP. Sensitivity was low though, so the volume will have to be turned up high with

AURA VA-80
Aura's VA-80 only managed 56watts into a 4Ω load; ideally it should be double the 8Ω figure of 50 watts, so driving low impedance loads will not be a strong point. Separation was surprisingly low at 36dB, which will help

sources. The disc stage has a warp filter at 50Hz, which may give a light bass quality with LP, but will prevent warps from LP reaching the loudspeakers.

NAD 304
The NAD is able to deliver high power (150watts) for around one second, which enables it to deal with transients without overload distortion. At heart it is a 50watt amplifier though. The disc stage has a warp filter at 30Hz, which will prevent warp reaching the 'speaker cones without reducing bass weight much. The disc stage is also extremely quiet.

ARCAM ALPHA 5
Frequency response is wide and stretches low to 4Hz giving good subsonic extension for CD. Input sensitivity measured 170mV which makes the Alpha 5 compatible with all

peaky treble (due to a mis-matched MPX filter). Distortion and channel separation need to be less than 0.3% (according to harmonic structure) and better than 25dB.

Hiss level must be better than -70dB for Radio 3 silences to be just that - silent. And full quieting, the strength of aerial signal needed for optimum results, should be around 1mV or less.

Selectivity, the ability to separate stations under the most difficult conditions should be better than 60dB and sensitivity better than 30μV on stereo.

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DENON DCD-1015

Denon's Alpha Processing system throws up some peculiar effects on the DCD-1015. Frequency response from a convolved impulse reached just 8kHz (-1dB), a very low value. Our analysis shows early treble roll-off, which was accentuated enough to give a dull sound on cymbals and triangles for example.

Like other digital processing systems, notably PASC, Alpha processing can only be assessed subjectively.

Distortion levels were low, if above those of its peers. A peculiar spectrum of distortion harmonics can be seen in our analysis. The sonic impact of this analogue-like spectrum is again best judged by listening tests, but I doubt whether it would be especially noticeable.

JVC XL-Z547

The JVC XL-Z574 has a beautifully engineered frequency response. It is extremely flat with just a slight lift in the bass to add solidity to the sound, plus a smooth treble roll off with no peaking or ripple.

Distortion was very low too, bettering the Pink Triangle Ordinal's 0.38% (previously the lowest we've measured) distorion at -60dB with an amazingly low 0.32%. At -30dB, the smallest amounts of 2nd and 3rd harmonic are just visible, but so low that I wouldn't expect them to affect the sound adversely.

Elsewhere the JVC shows quality engineering with wide separation, low noise and output only fractions of a volt below the 2V standard.

Linn Mimik

The Mimik's frequency response has been tailored to give a small amount of treble lift, which will either give the impression of extra detail or sharpness, depending on the level of distortion this player produces, and its nature. Bass has a subtle lift too, which will help to give the Mimik a solid bottom end.

Distortion, although low at -30dB as shown in the plot below, rose strongly as signal level decreased. Here the similar Quad 67 measured considerably better, having around half of the distortion, but, at the end of the day, the effects of this can only be judged in a listening test.

Elsewhere the Mimik measured well enough; output was very close to the Philips 2V standard, noise a little higher than normal at -86dB and dynamic range reduced to 97dB because of the high distortion at -60dB (EIAJ test).

<table>
<thead>
<tr>
<th>Frequency Response</th>
<th>Distortion (%)</th>
</tr>
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<tbody>
<tr>
<td>-6dB</td>
<td>0.005</td>
</tr>
<tr>
<td>-30dB</td>
<td>0.006</td>
</tr>
<tr>
<td>-60dB</td>
<td>0.32</td>
</tr>
<tr>
<td>-90dB</td>
<td>28.5</td>
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<tr>
<td>-90dB dithered</td>
<td>9.6</td>
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<tr>
<td>Separation (dB)</td>
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</tr>
<tr>
<td>1kHz</td>
<td>106</td>
</tr>
<tr>
<td>10kHz</td>
<td>81</td>
</tr>
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<td>Noise</td>
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<td>Dynamic range</td>
<td>109dB</td>
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<tr>
<td>Output</td>
<td>2.15V</td>
</tr>
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<table>
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<tr>
<th>Frequency Response</th>
<th>Distortion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-6dB</td>
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<tr>
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<td>Separation (dB)</td>
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</tr>
<tr>
<td>1kHz</td>
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</tr>
<tr>
<td>20kHz</td>
<td>102</td>
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<td>Dynamic range</td>
<td>111dB</td>
</tr>
<tr>
<td>Output</td>
<td>1.98V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency Response</th>
<th>Distortion (%)</th>
</tr>
</thead>
<tbody>
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<td>-60dB</td>
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<tr>
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</tr>
<tr>
<td>-90dB dithered</td>
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<td>Separation (dB)</td>
<td></td>
</tr>
<tr>
<td>1kHz</td>
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<td>20kHz</td>
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<tr>
<td>Dynamic range</td>
<td>97dB</td>
</tr>
<tr>
<td>Output</td>
<td>1.98V</td>
</tr>
</tbody>
</table>

**Conclusion:**

The Mimik is a well engineered player that offers quality performance with low distortion and a smooth treble lift. Its frequency response is extremely flat with just a slight lift in the bass to add solidity to the sound, plus a smooth treble roll off with no peaking or ripple.

The JVC XL-Z574, on the other hand, offers a beautifully engineered frequency response with a slight treble lift to add brightness to the sound. Its distortion levels are very low, making it a great choice for audiophiles looking for high-quality sound.

**Hi-Fi World**

APRIL 1995
MISSION 733
Using pink noise to measure frequency response I could hear deep and powerful bass from these speakers. This was confirmed by the response plot, which shows that the 733s extend well down and have a rising bass response.

This extra bass output is balanced at the other end of the spectrum by a rising treble, seen clearly between 12-16kHz. Depending on the quality of the tweeter used, this will manifest in listening tests either as added sharpness or extra apparent detail in the high treble. However, to be on the safe side, I'd steer clear of matching with bright sounding ancillaries.

As with most of Mission's loudspeakers, the 733s are easy to drive. Sensitivity was above average at 87.5dB at 1m using a nominal watt (2.83V) pink noise test signal, and overall impedance high at 9.5Ω. So the 733s will go loud with few watts, and won't demand high current from partnering amplifiers. I'd recommend a minimum of 20watts for good level in a typical room. DB

JAMO 307
Jamo's 307s don't go especially deep, as can be seen from the falling bass response in the plot below, but this is no bad thing if they are to be used on a shelf against a wall where some reinforcement will take place. I would expect them to sound tight and clean as a result, where some speakers would boom.

Further up in the response the 307s are reasonably tame; a slight lift around 1kHz will help to push detail forwards and the rising level towards the upper treble may give them a lightweight balance, but they should stay smooth all the same.

With a sensitivity of 86dB, measured at 1m using a nominal watt (2.83V) pink noise signal, the 307s will go quite loud for a miniature. Their overall impedance of 7.2Ω means they will draw a little more power than a typical British loudspeaker which tend to average around 10Ω, but any modern solid state amplifier should have no problems. I'd recommend 30 watts minimum for good volume. DB

MISSION 731
Whilst the 760s are an affordable audiophile loudspeaker aimed at the UK, the new 731s are a Euro-speaker preened for success overseas. They have a treble peak and bass lift, to give a more exciting balance, with sparkling treble and punchy bass. These speakers won't necessarily be the last word in refinement or neutrality, but they could certainly add some useful speed and excitement to budget hi-fi systems possessing limited dynamic ability.

Mission's 731s are easy to drive. They have a high overall impedance and just above average sensitivity, exactly the kind of easy load that is needed for budget amplifiers. The impedance curve holds no nasty surprises either, staying high over the audio band and never dipping below 6Ω at any point.

The 731s are an interesting loudspeaker. They have been boosted up at frequency extremes for a lively and exciting balance and are an easy load for low power amplifiers. They could well bring a pleasant injection of energy to budget systems. DB
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mission 731

frequency response

kef coda 7

kef's new coda 7s have a smooth and well balanced frequency response. there is a rising trend towards high frequencies, so they may sound a little lightweight, or bright, although bass extension was good for their size.

driving the coda 7s is relatively easy. they have a high sensitivity of 87.5db, meaning they will go loud with few watts. their overall impedance averages out to 8 ohms, so they will not demand much current either. the impedance curve is a little lumpy, suggesting the codas are a reactive load. in the bass, impedance falls to around 4 ohms, but it is high through the midrange and treble at 10 ohms or so. for balanced results, a solid state amplifier will be best because of this, or, possibly, a valve amp. 4 ohms.

overall, the kefs are well engineered for their purpose. an amplifier capable of producing 20 watts or more will be sufficient for good levels.

rotel rt-990bx

the rt-990bx has a wide, flat frequency response characterised by a little plateau treble lift, shown in our analysis, and a similar amount of bass lift - just +0.5 db but enough to add some 'weight' to bass.

otherwise, the rt-990bx measured normally - that is to say, it has wide channel separation on stereo, produced minimal distortion at less than 0.1%, as our distortion analysis shows, and also produces little hiss. with 0.8 mv or more from the aerial, a comparatively low figure suggesting good sensitivity, hiss dropped to -75 db, a little better than usual.

although the response trace shows no sign of the usual mpx notch filter at 19 khz, there was a little unwanted pilot tone (19 khz) or sub-carrier (38 khz) to upset tape recorders by dolby blocking. an audio output of 800 mv was high, allowing this tuner to match into all amplifiers.

sensitivity was high too and selectivity well defined and both wide and narrow if modes, so the 990 has a good, tidy rf performance. even the rather crude looking red led 'signal' level display (aerial signal, that is) usefully only lit all five red diodes when the signal was strong enough for best sound quality, namely 1 mv. nk.

tuner test results

frequency response 8hz-17khz

distortion (50% mod.) 0.07%

hiss (ccir) -75db

selectivity (at 0.4mhz) 62/80db

sensitivity

mono 2µv

stereo 20µv

signal strength meter

led no. level (µv)

1 4

2 10

3 50

4 125

5 1000

hi-fi world laboratory

hi-fi world is britain's only hi-fi magazine with a sophisticated in-house laboratory. new equipment is put through a rigorous test procedure developed over many years. four staff engineers ensure that all equipment we review is tested properly and then partnered with suitable equipment, both to show its strengths and to reveal potential weaknesses.

hi-fi world's engineers design esoteric loudspeakers and amplifiers for the diy supplements. these designs attract strong interest world wide. now regular export shipments are made to a number of far east countries by world audio design. once, only japan produced magazines sufficiently knowledgeable to design circuits. now britain has a magazine that designs, production engineers and exports!

our aim is simply to find ways of helping you improve your enjoyment of music, preferably for a reasonable outlay. we are all dedicated music lovers and hi-fi enthusiasts - and we know you are too. in spite of all the tests and engineering - or perhaps because of it - we feel no need for techno-talk in the magazine. but be assured that our reviews are amongst the most accurate and informed anywhere in the world today.

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WHAT'S IN A NAIM - PART 2?

Well, my comments last month about Naim amps certainly rang a bell, in particular the one on my phone! Far be it for me to criticise Naim amplifiers but I do regularly wonder why people are prepared to pay £8k for a NAC52 Preamp and two NAP 135 mono blocks delivering 75 watts/channel when for a tenth of that price they can now buy an AVI integrated amplifier producing 100 watts/channel, 250 watts peak with 20 amp current capability. Alright, this amp is new, but even the previous cheapest AVI pre/power costs only £1,400 including remote control. Is it just that some people relate cost to quality? I know of one importer of American speakers who was told that they were too cheap and that they would have to put the price up to convince customers they were as good as they were. It's a funny world out there but we will continue to do our bit to sort out the bargains. At the two extremes in speakers are (a) the Jamo Cornet 30 I referred to last week (£99), which is amazing customers when driven by the AVI CD player and integrated amp, and (b) the new Active 300's which will fill a concert hall for around £1,11k and are a bargain if you have a room and bank balance large enough to take them.

WHY V'AUDIO IS DIFFERENT

A recent case I feel is a good indication of the sort of service we aim to provide as consultants as opposed to many shops which sell boxes and give little real assistance to the customer. A gentleman contacted me about buying a new amplifier to improve the sound he was getting from his old Wharfedales. I explained that the only way I could recommend anything was to go along and listen to the system and in particular see if it was worth persevering with such an old loudspeaker. The result was by the end of the afternoon it was clear that in fact his amplifier was the best component in the system and that both CD player and speakers needed replacing. So instead of the customer wasting £200 on a new amplifier, I am piecing together a complete system for about £700 which will probably consist of my favourite AMC CD6 (£350), the Project amp at £260 and a pair of bargain Jamo Cornet 30 loudspeakers at a mere £99. Possibly however we may be able to piece together a cheaper s/h CD and amp with the ever popular Ruark Templars which will sit nicely in the window bay. This in my opinion is the only way to really help customers and stop them going around in circles wasting money.

RUARK CRUSADERS

As regular readers will know, Ruark speakers are a favourite of mine and in particular the Accolade and the ATC 50 are my two favourite speakers. For those who can't quite stretch to the size and price of the Accolade, the Crusader comes close but again needs a good amp to drive it properly. The price of achieving that has now come down to £800 with the new AVI integrated. This combination has scale, warmth, detail and excitement in abundance!

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<td>TNT Mark 2 Wheaton Triplaner arm</td>
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