NEW & IMPROVED HEYBROOK SEXTET LOUDSPEAKER

SCOOPE! OMAK'S MASSIVE RUSSIAN VALVE AMPLIFIER

SIX PAGES OF BARGAIN USED HI-FI

SCOOPE! LINN KARIK III CD PLAYER - UP WITH THE BEST

ACOUSTICS - HOW TO GET THE BEST SOUND FROM YOUR SYSTEM

ROGERS' AB1 SUBWOOFER FOR THE LS3/5A LOUDSPEAKER

COMPETITION - WIN EPOS LOUDSPEAKERS WORTH £2775
The **TEAC VRDS Range**

**The One System You Can't Beat!**

Everybody is aware of the huge success of the VRDS range of integrated CD Players and Transports. Now the VRDS players are complemented by a range of components which share the same outstanding build, engineering and sonic qualities.

Everyone knows that the VRDS mechanism is the best CD transport in the world - now there's no need to compromise with the rest of your system!

---

**VRDS T-1 CD TRANSPORT**

With the acclaimed VRDS mechanism, highly rigid chassis and remote control - the TEAC ethos of sonic performance, build quality and ease of use are typified in the T-1.

**D-T1 D/A CONVERTER**

The matching DAC for the T-1 uses Bitstream Conversion* in dual differential operation, a copper chassis to minimise RF interference and offers 4 digital inputs.

**V-8030S Cassette Deck**

The latest example of TEAC's expertise in tape engineering features a 3-Head Dual-Capstan drive transport, Dolby S Noise Reduction and separate Bias and Level controls - proof indeed that the cassette is still a viable source.

Also available is the V-6030S.

**A-BX10 INTEGRATED AMPLIFIER**

An Audiophile amplifier which gives superb dynamic power and performance. Featuring a balanced stereo input and a fully balanced circuit configuration, the A-BX10 offers 100 Watts per channel and an optional phono board for MM and MC cartridges.

---

*Bitstream Conversion is a trademark of the Philips Corporation.*
Russia is going to be a strong player in audio. Forget Rigonda, we're talking about serious kit like the Omak. It uses C-core transformers - difficult to build and sophisticated. We were impressed - the Russians know what they doing. With low labour costs, Russia will become a powerful player in the next decade.

- From Russia with love, courtesy of Air Ukraine, comes the Omak valve power amplifier - see p34. Built like a T27 tank, it's impressive. We don't commonly see such characterful or effective products.

- Linn started out as a turntable manufacturer. Next month we'll be covering the history of their famous Sondek turntable. This month we review the superb Karik CD player, which is right up with the best - p52.

- It's the Heybrook Sextet again, one of my favourite loudspeakers. Now it has stronger bass and a richer sound, whilst retaining glorious stereo from a great ribbon tweeter. I'm happy! See p13.

- From France comes the interesting part-digital Micromega Tuner. We were confused: it's analogue but digital, and it hasn't got a name or model number! But it's different - see p16.

This month we have products from Canada, France and Russia, as well as Britain. I'm reminded just how strongly music appeals to everyone and that hi-fi, as a result, knows no borders. Our DIY Supplement in particular (be patient - next month!) generates enormous interest overseas and we ship valve amp kits by mail order to the most obscure places. The news that British exports are growing strongly and that electronics performed particularly well wasn't missed on us, as we struggled to ship kits to Malaysia, The Philippines, Hong Kong, America, Australia and New Zealand. Its a Hi-Fi World!
And we've got a new World Verdict globe rating system - see p4.

Noel Keywood, Editor

This Month's World

SHOW! SHOW! SHOW!
Hear our DIY kit designs at the London Sound & Vision Show, Cumberland Hotel, Marble Arch, London. It's a great venue for real hi-fi, held from 21st-24th September 1995 (the same time as Live 95, so you can go to both). We'll be there, with a stand and a room.
<table>
<thead>
<tr>
<th><strong>AMPLIFIERS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOTH THIRTY SERIES INTEGRATED</strong> 22</td>
</tr>
<tr>
<td>This interesting design from transistor maestro Stan Curtis gets its first review from David Price.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LOUDSPEAKERS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEYBROOK Sextet</strong> 13</td>
</tr>
<tr>
<td>Noel Keywood, long time admirer of the Sextet, finds many of their little peculiarities have been ironed out in the revised version tested here.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COMPACT DISC</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEAC VRDS-20</strong> 19</td>
</tr>
<tr>
<td>David Price listens to one of the chunkiest looking CD players money can buy, TEAC’s range-topping VRDS 20.</td>
</tr>
</tbody>
</table>

| **THORENS TTP/TTA2000** 58 |
| Thorens’ new black and gold pre-power amplifier needs a key to turn it on! Douglas Floyd-Douglass takes it for a spin. |

<table>
<thead>
<tr>
<th><strong>CASSETTE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CASSETTE TAPE PLAY OFF</strong> 33</td>
</tr>
<tr>
<td>Noel Keywood switches on the Nakamichi to test a batch of the latest ferric formulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TUNER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MICROMEGA TUNER</strong> 16</td>
</tr>
<tr>
<td>Although famous for their CD players, Micromega produce a wide range of separates. Noel Keywood and Eric Braithwaite audition their upmarket tuner.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>WORLD VERDICT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTSTANDING - Superb sound, something we’d use ourselves.</td>
</tr>
<tr>
<td>GOOD - Has strong merit. Well worth an audition.</td>
</tr>
<tr>
<td>ADEQUATE - Mediocre in vital areas. May be worth auditioning.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TURNTABLES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DUAL CS505/4 UK vs. PRO-JECT 0.5</strong> 50</td>
</tr>
<tr>
<td>A decade ago a Dual turntable was a compulsory first purchase for those after real hi-fi. Dominic Todd pits the latest version against Pro-Ject’s popular 0.5.</td>
</tr>
</tbody>
</table>
NEWS
New products and background from the hi-fi world.

LETTERS
The dust is settling on the vinyl controversy, but the great A/V debate rages on!

QUERYs
Once again, the team get to grips with your hi-fi problems.

COLUMNS 61, 64, 69, 71, 72
Comment, criticism and overviews on the ever-changing hi-fi scene.

NEXT ISSUE
August's Hi-Fi World must surely be the magazine to have on the beaches of Europe this summer?

COMPEITON
The chance of an instant 'speaker upgrade courtesy of those awfully nice Epos people!

SUBSCRIPTIONS
No more tedious trips to the newsagent and you'll have the pick of the Classifieds. What other reasons for subscribing do you need?

SPECIALIST HI-FI DEALERS 77
No box-shifting purveyors of midi systems here! These are real hi-fi dealers offering expert advice and service.

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

WORLD AUDIO DESIGN 82
A range of high performance kits for the enthusiast, including the stunning new KLPP1 all-valve phono preamplifier.

DIAL-A-DEALER 89
Who sells what, and how to get in touch.

ACCESSORIES 98
All you need to keep that system in the best of health.

HI-FI WORLD LIBRARY 100
A collection of highly readable titles, many of which are definitive publications in their sphere.

MEASURED PERFORMANCE SECTION 105
Noel and Dominic switch on the HP3561A and opine on matters technical.

READERS' CLASSIFIEDS 134
Looking for that elusive product to match the rest of your kit? Our ever-expanding classifieds are the place.

ADVERTISER'S INDEX 146

ROOM ACOUSTICS 37
Acoustics engineer Douglas Floyd-Douglass tackles the vexed subject of tuning your room.

GREAT BRITISH HI-FI SHOW 26
Haden Boardman gives you all the news about this small but perfectly formed hi-fi show.

MUSIC
Some excellent new releases for your perusal.

ROCK RECORD OF THE MONTH:
Bob Dylan: Unplugged

CLASSICAL RECORD OF THE MONTH:
Szymanowski/Poulenc: Stabat Mater; Altanya Symphony and Chorus: Robert Shaw, Conductor.

ROCK AND POP 73
JAZZ 86
CLASSICAL 93

COMPETITION
Win one of three pairs of Epos loudspeakers worth £2775 in total. 1st prize: ES25s, 2nd: ES14s, 3rd: ES11s.
It's official!
The ‘Awesome’ Coda 7.
UK’s No 1*
Serious stuff.

*According to the official GFK market survey for March, more KEF Coda 7s were sold through UK hi-fi shops than any other speaker outselling the nearest competitor by more than two to one.
AMERICAN SUMO
Cast your mind back to the late seventies, and think of the superamps of the time. Not those monster Japanese receivers with more chrome than a '57 Cadillac, but the occidental likes of SAE, Amcron, Macintosh and GAS (Great American Sound), responsible for the famously monickered Ampzilla and Thaedra, not forgetting Son of Ampzilla!

Following the demise of GAS, SUMO emerged from the ashes, its name a reverse acronym for Only Made in the United States. SUMO now have a range of products imported by Adusa, including the £891 Polaris II, which produces a hefty 120 watts into 8 ohms. Also featured are the £781 Axiom CD transport and the £875 Theorem convertor.

Adusa & Co.,
4 Arundel Rd.,
Kingston Upon Thames,
Surrey KT1 3RZ.
Tel: 0181942 6241

ARCAM RETUNE DELTA 280
Arcam’s mid-price Delta 280 tuner has been substantially modified, with claimed improvements to sensitivity and overall sound quality. It also gets an improved auto-tuning circuit, twin aerial inputs and a better signal strength meter.

This £399 tuner now looks impressive value supplied complete with Arcam’s remote controller, providing tuning and display controls, as well as operating other remote-compatible Arcam CD players and amplifiers.

A&R Cambridge Ltd.,
Pembroke Avenue,
Denny Industrial Centre,
Waterbeach,
Cambridge CB5 9PB.
Tel: 01223 861550

PERFECT FOR THE (BAU)HOUSE
Aesthetic modernism is alive and kicking in hi-fi! Looking rather like a product of the early twentieth century Russian avant-garde, Wharfedale’s new £299.95 Acumax 3 satellite/subwoofer system has a claimed high efficiency, wide dynamic range and a high 400W power handling.

This package of “masterpieces in miniature” comprises a pair of Modus Micro Plus two-way satellites with improved 19mm ferro-fluid cooled dome tweeters, and a single Modus sub-woofer. Optional Modus pillar stands are available for £39.95.

Wharfedale International,
Sandless Way, Crossgates,
Leeds LS15 8AL
Tel: 0113 2601222
Can sound be this simple?

The answer is an audible Yes. Unlike many electronics companies, NAD specialises in delivering innovative, award-winning audio and home cinema products - and nothing else.

**KEF: THE STORY CONTINUES**

The new Coda 9 loudspeaker from KEF completes their reborn Coda range. At £299, the 9 is a two-way floorstander with an additional internal sub-bass driver. This is the same 165mm coated paper cone unit that performs bass/mid duties in conjunction with KEF's familiar 25mm soft dome tweeter. This design boasts impressive 91dB sensitivity, meaning it can be used with relatively low powered amplifiers. The new Coda 9 measures 850x200x288mm (hxwxd).

**KEF Audio (UK) Ltd., Eccleston Road, Tovil, Maidstone Kent ME15 6QP Tel: 01622 672261**

**NOT MAGIC BUT ALCHEMY**

In summer 1991, a diminutive black box curiously entitled Digital Decoding Engine appeared on British shores, quickly establishing itself as a popular convertor upgrade for budget CD players. The Audio Alchemy DDE v1.0 has now been upgraded to version 1.1, featuring a simpler circuit design with a pure Class A output stage. Audio Alchemy claim this results in a "highly transparent but sweet sounding audio stage". The DDE is now available with a choice of power supplies, at £399.95 with Power Station One or £599.95 with Power Station Three.

**Path Premier**
**Unit 2, Desborough Industrial Park, Desborough Park Road, High Wycombe, Bucks HP12 3BG**
**Tel: 01494 441736**

**UPGRADO YOUR PHONES**

Grado, the New York company famous for its range of cartridges, has announced an entry level headphone to the UK. The £89.95 SR60, which has already received various accolades from US publications, is a hand assembled, open back, vented diaphragm design weighing 7 ounces.

**Grado UK distributors:**
**Goldring Products Ltd., 8 Greyfriars Road, Bury St. Edmunds, Suffolk IP32 7DX**
**Tel: 01284 701101**
The Meridian Audio system has been designed to provide a musical performance in your home - the equal to a live concert. The benefit is that you can choose when to listen and you can build a system from just a CD player to a complete digital home theatre surround sound system. All the products are matched which means that they are easy to use and can even be networked around the house.

If you are looking for the best in sound quality and convenience, call Meridian Audio Ltd 13 Clifton Road Huntingdon Cambridgeshire PE18 7EJ
Tel 01480 52144 Fax 01480 459934

World Radio History
TEAC AUSTERITY MEASURES
Those aspiring to TEAC’s VRDS CD players, but finding themselves momentarily impoverished may be interested in TEAC’s new CD-P3200, which at £150 is an indication of the seriousness with which they take entry-level products.

Interestingly it avoids bitstream and its ilk, using instead a 16bit convertor with 8 times oversampling. The new TEAC is well specified, with the usual remote control, shuffle play, repeat and auto-space functions.

DENON’S AFFORDABLE RDS
What’s black, costs £149.99, is neatly styled and packed with facilities? Every entry-level Japanese hi-fi separate on the market? No, Denon’s new budget tuner. The TU-215RD boasts a full set of RDS facilities, including EON capabilities. It has 40 presets, and features a remote sensor which can be operated by any Denon remote commander.

WELL CONNECTED
In a sea of interconnects with telephone number price tags, Connections UK announce an affordable way of upgrading those unspeakably poor cables bundled with most hi-fi separates. At £21 for a 1m pair, Jade (so named because of its colour) is a good quality 7 x 0.2mm copper interconnect. Connections UK are also looking for a number of “consumer testers” for a forthcoming higher specification version of Jade, which is available direct from:

EPOS CAP IT ALL
Epos Acoustics have announced an upgrade to their Epos 11 model, a new custom-wound capacitor claimed to bring a significant improvement in sound quality. Why so important? Well it’s actually the only component in the 11’s crossover! Existing ESLIs can be upgraded for £50 at local dealers.
Just what you’ve always wanted. Speakers that don’t make a sound.

And so it was written that the advanced “silent” cabinet design of Tannoy Profile speakers should offer a purity of sound and absence of distortion that other manufacturers could only dream of. Allowing the powerful drive units to produce a volume of music sufficient to bring down the walls of Jericho. And the people heard this, and there was great rejoicing.

TANNY PROFILE
RING THE PROFILE HOTLINE ON 0236-425407. OR WRITE TO TANNOY LTD., ROSEHALL INDUSTRIAL ESTATE, COATBRIDGE, STRATHCLYDE ML5 4TF.
Heybrook hadn't planned on changing their top of the range Sextet loudspeaker released in 1991, then the original bass drivers and production equipment went up in smoke! A new bass driver with higher output has been found, supplemented by a revised crossover and altered port damping. So successful are the revisions, I suspect they will be around a lot longer. It's a great 'speaker at a very competitive £1129 finished in black, or £1159 in the rich, red hued walnut of our review samples.

I've used Sextets since they were first launched, during which time a sea of loudspeakers have failed to destroy my regard for them. Even when made aware of failings by more modern designs like KEF's Reference Series, the Sextet's rare qualities have saved it from the realms of those I have known and loved (past tense!).

Part of my addiction to this 'speaker is down to the Tonigen ribbon tweeter. Used to electrostatics and ribbons, I've got great problems with conventional dome tweeters, which sound distinctly splashy or vague by comparison. It might seem odd.

**ETERNAL FLAME**

A fire was responsible for Heybrook's latest version of the acclaimed Sextet loudspeaker. Noel Keywood listens to them hot from the factory.
You may be forgiven for thinking that the best solution for a speaker design is the commonly found, easy to manufacture, rectangular box. Not so.

The asymmetric cabinet used with all AUDIOVECTOR speakers is an example of the finest engineering and visual design.

- non parallel sides reduce standing waves
- ultra-rigid front panels
- quality crossover and high sensitivity
- exceptional design

In technical terms, the absence of parallel surfaces means there are no standing waves. This results in less distortion, higher sensitivity and a cleaner sound. In layman's terms this means an involving and enjoyable sound...

...but if you have heard the AUDIOVECTOR speakers you would know this.

<table>
<thead>
<tr>
<th>Model</th>
<th>Option</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIOVECTOR 2X</td>
<td>Black Ash</td>
<td>£850</td>
</tr>
<tr>
<td>AUDIOVECTOR 3X</td>
<td>Cuba</td>
<td>£1500</td>
</tr>
<tr>
<td>AUDIOVECTOR 3X</td>
<td>Black Ash</td>
<td>£1500</td>
</tr>
<tr>
<td>AUDIOVECTOR 5</td>
<td>Cuba</td>
<td>£2500</td>
</tr>
<tr>
<td>AUDIOVECTOR 5</td>
<td>Black Ash</td>
<td>£2500</td>
</tr>
<tr>
<td>AUDIOVECTOR 6</td>
<td>Black Piano</td>
<td>£4600</td>
</tr>
</tbody>
</table>

For more information and demonstration, contact:
The Chord Company Ltd., 30a Sarum Business Park, Portway, Salisbury, Wiltshire SP4 6EA. Tel: 01722 331674 Fax: 01722 411388

Distributors of Audiovector speakers for F3/LYD. Meinungsgade 8, D2. DK-2200 Copenhagen N, Denmark. Tel: 01 39 60 60
to be hooked into a tweeter, but this one brings outstanding focus and clarity to treble. Its influence is wide ranging; transients have a razor edge quality that makes strummed guitar come alive.

Cymbals, hi-hats and tambourines are outlined with startling resolution and clarity, especially with aggressive rock percussion. The Tonigen is easily out in front here, and to my ears it tells. Last but not least, this tweeter brings a clarity, especially with aggressive rock outlined with startling resolution and transients have a razor edge quality that to treble. Its influence is wide ranging: one brings outstanding focus and clarity to be hooked into a tweeter, but this

The flip side is one we've discussed more than a few times in the office. The Sextets sound dry and a little shrill.

The new Sextet's bass is significantly stronger with greater extension and, most importantly, superb fluidity and control. The peculiar rumbling deep bass of Angelique Kidjo's Aye album best illustrated this. Under-damped and mistuned speakers get into a real state with it, booming badly. The Sextets resolved it well, showing a fine sense of note definition, making for impressively articulate bass lines. Where the original design conspicuously failed to reproduce the single, seismic drum strike at the start of Aye - something many 'speakers miss with surprising alacrity (big TDLs and KEFs excluded) - the new one clearly revealed its existence, if not its full power.

The new bass driver's higher output brings other gains. It better integrates with the midrange to give a richer, smoother, more cohesive presentation overall. Midrange detailing has improved significantly, yet the Sextet was never short of detail. Midrange dynamics have also expanded out to impressive levels. A vocal push on John Mayall's Looking Back album came over with such sudden and unexpected force, it made me jump.

Most importantly, Heybrook have retained the Sextet's wonderful imaging, close to that of the Quad electrostatic. It projects music out of the box like few others, producing a glorious sound stage with lifelike images, now with even more body and believability. Designs like the Mission 752s and KEF Reference Series image superbly, but the Sextets remain ahead in my view. Quite why, I'm not sure, but the narrow cabinet and superb ribbon tweeter must contribute substantially, plus the fact that this is a well engineered three-way 'speaker' and there's no beating a good three-way.

On the almost impossibly difficult task of reproducing violin the Sextet is better than ever.

"On the almost impossibly difficult task of reproducing violin the Sextet is better than ever."

Tonigen tweeter can stand out in rather sharp relief unless it's damped down. First time listeners can find it sharp or glassy sounding, but in our experience once you've acclimatised, this becomes addictive. All the same, Heybrook have wisely tamed its output in the revised Sextet to make it better integrated and less obvious. And they've done a very good job in finding the right balance, keeping the Sextet clear, open and sparkling enough to make its strengths unequivocal, whilst pulling the tweeter back from being too much of a good thing.

As you might expect from any "reference" speaker, the original Sextet had a tidy, analytical sound without too much loss or contrivance. Its greatest weakness was tight, over-damped lower bass and some loss of upper bass/lower midrange richness identified in my original review. By any standards the Sextet was light, even arid in this region. Heybrook recommended use close to a rear wall to reinforce output, but I've since found my standard 16ft x 12ft lounge complemented this speaker. In a larger 14ft x 20ft lounge with high Victorian ceilings however, the original

Korsakov's Scheherazade, with its testing sustains, managed to show how this instrument can be both challenging to listen to, raw in the way its strings rasp under the bow, yet at the same time natural and unfatiguing through the Tonigen tweeter. Superb insight into the surrounding acoustic, gasps for breath by Magad and the most deliciously precise and sure stereo image all added to the excellence of the Sextet's performance.

A lovely woody richness to bassoons and plenty of weight behind timpani showed how the Sextets has now become full bodied, but not overblown. Finding its bass strong enough to drive my large-ish lounge, I ran it in my medium sized listening room as a precaution, finding that bass stayed under control and in balance - an unusual property. Speakers that drive in a large room often, but not always, boom in a smaller one, but not the Sextets.

In their original review in October 1991's World, I described the Sextet as dramatic, entertaining, fast and very revealing. Now, without compromising any of these strengths, Heybrook have done a wonderful job of eradicating the weaknesses. The overall presentation is as clean, controlled and accurate as you could wish. With a stronger, more articulate bass, improved sensitivity, better integration between the drive units and less obvious treble, they retain superb imaging and a wonderful sense of cleanliness and control. As such, I suspect they'll continue to survive in my lounge for a lot longer.

Heybrook Sextet £1129
Heybrook Hi-Fi Ltd., Estover Industrial Estate, Plymouth PL6 7PL
Tel: 01752 731313

WORLD VERDICT

The Sextets have strengths that make long term listening a joy, well engineered too.

World Radio History
Fitted with digital filtering and a digital output, the Micromega Tuner looks sophisticated. Eric Braithwaite and Noel Keywood tune in to check it out.
Digital circuitry in an analogue FM tuner is new to us and caused some puzzlement in the office. Which bit of the £700 Micromega Tuner could possibly be digital - and why? It turned out that the final audio signal is converted to digital, to remove unwanted signals above 15kHz within a digital filter, before being converted back to analogue. So there’s an analogue output for stand-alone use, and a digital output for direct connection to Micromega’s £700 Concept DAC. We tried it both ways. In itself, Micromega’s Tuner is a conventional, FM-only synthesiser design, possessing no Medium or Long wave bands. It has few facilities, other than remote control - surprising in view of its price tag. Push button station selection accesses 39 memories, plenty enough for Britain. Essentially stereo only, the tuner can be switched to mono from the remote handset, although this does not lift noise muting, so weak stations are unobtainable. Facilities such as selectable IF bandwidth and RDS, commonly available on expensive tuners, were missing.

The question is: does digital filtering offer a significant benefit? Our measurements showed the filtering was effective, but improvements were sufficiently small to be academic. It brings arguable benefits in reduced phase shift, something best assessed in listening tests. In all other areas measured performance barely matched that of budget designs like the NAD402 or Denon TU-260L. Treble lift in the audio frequency response produced a bright sound. This may suit the home market better than Britain, since French loudspeakers also have raised treble and a bright sound, we have found from measurement and experience.

In our view, with digital filtering Micromega have used a hammer to crack a nut. Although it’s important to remove signals above 15kHz, conventional notch filters do a fine job. Going into digital at a low 32kHz sampling rate (for 15kHz bandwidth) then back out again just to use a slightly improved filter is unwise, because digital processing introduces its own, unpleasant degradations. There are other better ways of ensuring good sound quality. A disproportionate amount of the build budget seems to have been directed into this scheme.

**SOUND QUALITY**

Assured by Micromega’s importers that the Tuner comes to life through their Concept DAC, a £1400 combination, we tried it this way, as well as direct via its own analogue outputs. It was connected to a five element aerial in central London and fed an Audiolab Q preamp with 8000M monoblocks, hooked up to Heybrook Sextets. For reference we had our trusty Leak Troughline.

Lucky to catch a talk show on Radio 4, we were treated to the full, deep, resonant tones of a male announcer talking live into a studio microphone. It’s on this sort of programme that the Micromega failed to lift itself from the norm, sounding competent but devoid of atmosphere. In this respect the characteristic atmosphere of the studio didn’t materialise.

Instead, both male and female announcers had a cuppiness or nasality to their voices, marred also not so much by spitchiness or sibilance but a ‘tsk tsk’ palatal aberration to their pronunciation.

I favour fine imaging and stereo detail. The clarinetist in Poulenc’s clarinet concerto was less clearly placed vis à vis the piano than might have been expected. The piano itself failed to cohere between left and right hands: the one somewhat dulled and buoyom, the other rather sharp. This disjointed tonal effect also happened with a piano on a Chris de Burgh track on Virgin FM, momentarily put down to being electric or synthetic.

Too often in fact, I was reminded more of electronic processing than real acoustic sound, making it difficult to focus attention. A couple of tracks on Jazz FM produced doubts, rhythmically a mess. The vocalist’s melody failed to relate to her accompanists, and they to the drummer. And no, this was neither avant-garde jazz nor aleatory music, random though it turned out.

Our final verdict was that the tuner in stand-alone form sounded a little easier and more amenable on the ear than through the convertor, but that by current standards it showed little to justify a £700 price tag.

**With digital filtering Micromega have used a hammer to crack a nut.**

Leak Troughline shows its mettle, bringing the studio feel into the living room, placing the announcer onto a patch of carpet about 6ft in front of you - spectacular! In comparison, solid-state tuners generally present a planar sound stage which seems compressed and devoid of atmosphere. In this respect the Micromega failed to lift itself from the norm, sounding competent but unexciting. The characteristic atmosphere of the studio didn’t materialise.

Through the Micromega Concept DAC, three listeners felt the sound thinned, becoming hard. More subtlety would have been appreciated, particularly in tonal and vocal colour. Instead, both male and female announcers had a cuppiness or nasality to their voices, marred also not so much by spitchiness or sibilance but a ‘tsk tsk’ palatal aberration to their pronunciation.

**WORLD VERDICT**

Micromega Tuner
Micromega D.A. Ltd.,
P. O. Box 13,
London E18 1EG.
Tel: 0181 502 1416

£699.99

An unusual design from Micromega that’s well built but sonically unrewarding and expensive.

**Measured Performance**

see p105-113

**HI-FI WORLD JULY 1995**

17
The simplest and most cost effective way to upgrade your existing system

You need at least 2 Deflex panels for a pair of small bookshelf speakers, 4 panels for a pair of Tannoy 6's, and at least 6 panels for larger cabinets

Once you have gained access to the inside of the cabinet, remove foam and/or wool damping from the inside of the speaker (if fitted)

Place the flexible Deflex panel thru' the speaker cut-out and stick to the inside of the cabinet using the recommended adhesive

Now sit back and listen to the extra detail in sound, and far less distortion when played loud

What the experts have to say...

"...a marked improvement was obvious from the first few bars of REM's Automatic for the people album..."  
Hi-Fi News & Record Review - March 1994

"...Deflex panels seemed to give greater tightness and control, improved internal clarity, and pitch definition - all without deadening the sound in any way..."  
Audophile - January 1994

"...the result was sharper imaging, wider dynamics and a more natural sound..."  
CHOICE VERDICT

"...But one things for sure - the Deflex panels are no gimmick. They work..."  
Audio Video - November 1994

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Analogue lovers...
Although this mammoth £1300 TEAC is a top-end player here in the UK, such is the nature of the Japanese hi-fi market that at home, the VRDS 20 is a mid-market design, and a particularly affordable one at that. In the frantic environs of Tokyo's discount hi-fi chainstores it will set you back around 180,000 Yen, which thanks to Sterling's propensity to head floorward coupled with the Yen's perpetual ascent, means it's now cheaper here than its native Japan.

With more metalwork than your average battleship, TEAC's VRDS 20 brings its peculiarly Japanese approach to the CD player market.

David Price weighs up its abilities.
As a mid-price Nipponese product, it has all the essential accoutrements for showroom success. First are the enormous proportions - the TEAC’s a front runner in the perceived value stakes, its bulk undiminished even next to my well endowed Michell Gyrodec. It also sports the usual hewn-from-Mount Fuji build, weighing in at around 14kg, with expanses of internal copper plating, thick aluminium side panels and a triple top plate. If that wasn’t enough, there’s a little window on top of the player allowing proud owners to see the disc clamp spinning around inside at frantic speed! In front of this inspection portal is the legend, lest we forget, “Vibration-free Rigid Disc Clamping System”.

Inside, the VRDS 20 sports a 20-bit 8-times oversampling digital filter with bitstream conversion, and TEAC’s “mid-range” VRDS transport mechanism, to which many column inches have been devoted already. The TEAC also features little pillars at each corner, called “Aluminium Isolation Poles” sitting on brass and rubber feet. Round the back, further evidence of CD-Playerus Expensivus Japonicus is found, with every connection imaginable, including switchable digital outputs and the compulsory, sonically superior balanced XLR outputs.

In the same way that the aesthetics and build are quintessentially Japanese, the VRDS 20 has a distinct sound aimed at its home market - big, sweet and warm up improved things dramatically.

Unfortunately for the TEAC, it happened to be sharing my listening room with the take-no-prisoners Linn Karik CD player, tested on page 52. Although a couple of hundred pounds more expensive, comparisons were both inevitable and useful. The Linn makes a baseline for rhythms regardless of what’s playing, while the TEAC’s brighter, more ‘hi-fi’ presentation isn’t the last word in musicality. Starting with The Prodigy’s ‘Out of Space’, the VRDS 20 produced a large sound stage with a fair degree of stage depth. Hi-hats were undeniably bright, sounding as if TEAC engineers have built in a slight treble peak intentionally to make this player sound impressive in the showroom, yet the top end couldn’t be called harsh - indeed cymbals had a satisfyingly silky gloss.

As with most Japanese players at this price, midband was clear, with detail excavated like it was going out of fashion. There was an airiness to the acoustic, possibly due to the treble emphasis, that tricks you into thinking the VRDS 20 images better than it really does. Indeed, despite the expansive left-to-right sound stage, front to back depth was mediocre, lacking the sense of scale and perspective of the Karik.

Bass quality was tuneful and extended, but lacked both the tactility and slam of my similarly priced Sony player or the rhythmic fluidity of the Karik. Losing the force of kick drums, it substituted real, earthy bass lines for imprecise ‘generic’ bass notes which failed to describe the envelope of the genuine article.

Despite its airbrushed quality, the VRDS 20 still proved satisfying to listen to, as Linn’s recording of Purcell’s incidental music to The Indian Queen, played by The Purcell Simfony (sic) demonstrated. While the Karik dived to the centre of the acoustic and conveyed every last rhythmic and dynamic inflection, the TEAC relaxed back in the best seat in the house and followed things from a safe distance.

The listener was also treated to more tonal colour than the Linn could muster, giving violins a more natural woody tone with greater body, and real warmth and richness to the harpsichord. However, the trouble with having the best balcony seat is you lose much of the performance’s physicality, a count on which the TEAC was guilty. Despite the pleasing tone, gone was much of the counterpoint between oboe, violins and harpsichord.

Such a silky presentation goes down well in Japan, complementing their rather dry sounding domestic loudspeakers, and can be useful here too. Loading Lush’s ‘Black Spring EP’ into the Linn, I was greeted by a remarkably emotive performance, but the TEAC made this arid recording more palatable. Further from the front line, the sweeter percussion and guitar sound and the gentle gloss to Miki Berenyi’s vocals were all the more enjoyable. This said, in the final analysis I lost concentration half-way through with the TEAC, while the Linn kept me listening to the end of the song.

And therein lies the key to the TEAC’s sound. It’s satisfying to listen to on a variety of music, but isn’t the last word in musicality or grip. Whether it is value for money depends on your point of view. If absolute sound is your goal, you could do better auditioning certain home-grown players, but if it’s a room filling expanse of hardware you want, the TEAC VRDS 20 gives you plenty of metal for your money.

TEAC VRDS 20 £1299
TEAC UK Ltd.
5 Marlin House, The Croxley Centre, Watford. Herts WD1 8YA
Tel: 01923 819630

WORLD VERDICT

★★★★ Great sound - if it’s what you like. Solidly built and engineered quite well too.

Measured Performance see p105-113
Despite its genteel Elm fascia, Moth's Thirty Series integrated amplifier is tough enough to hit the opposition, finds David Price.
In a sense, it's a piece of beauty, designed to look as impressive as possible in dealer showrooms. Moth Marketing have, in the shape of their £320 Thirty Series Integrated, an unusual looking amplifier with a front panel fashioned from a slice of Elm. Despite such aesthetic imagination, its build quality can't be described as impressive. The crowded rear panel flexes easily, while the front panel switches don't exactly have the precision of Mercedes switchgear.

It's when you power up this baby that it starts to endear itself, as you're greeted with a powerful, dynamic sound that belies its limited power output. Connected to an easy to drive pair of UKD Divinas, it was impressive. It's certainly not from the warm and woody, English cottage industry school of amplifier design, as the powerful, expansive bass from Field's 'Washington Square' confirmed. The opening trombones came across with an unexpected sense of rhythm, the sound of hands brushing sticks extremely well defined. The bass drum was, however, the sound that really stood out, defined with no edge. The bass and lesser budget amplifiers will recall the sound. Indeed, the bass had defined with no edge. The bass and lesser budget amplifiers were all prey to the April's test of budget superbass, the winning Pro-ject 7 and Aura AU-80, were the only ones that didn't imbue her voice with intrusive grittiness, putting the Moth in distinguished company. Indeed the midband is one of this amplifier's strengths, remaining clear and highly detailed at all times, separating out disparate strands of the mix and putting them back together with the emphasis firmly on rhythms.

Lower down and further up, the Moth wasn't quite so accomplished. Upper bass was taut with a Naïve-style grip on proceedings, but tended to get soggy as the notes dived floor-ward. This said, despite its modest power and current driving ability, the Moth was at least the equal of the well respected and considerably more expensive Audiolab 8000A in this respect - no mean feat. Treble was good, but noting to write home about, lacking the Pro-ject's effusive smoothness and precision. The gently struck triangles that run through 'Washington Square' were slightly blurred, lacking the midband's hear-through clarity.

Moving onto Grant Green's 'Ease Back', a slice of beautifully recorded late sixties acid jazz, and the Moth dived into the groove with spirit. Such was the breadth of sound stage and imaging precision that it was hard to believe this was a budget integrated amplifier. The Moth instantly got hold of Green's every guitar inflection, and imbued Claude Batae's tenor sax with vigour, projecting it far into the room.

Once again though, the Moth's failings, however modest, became clear. Although its immensely enjoyable presentation diverted attention away from the fact, there was a slight lack of airiness to the acoustic. This was most noticeable at frequency extremes, especially in the upper regions where Idris Muhammad's cymbal work lost some of its texture, with ride cymbals sounding a touch splashy.

Blur's 'Tracy Jacks', from their massive selling Parklife album, was no less fun, with one of the best displays of rhythmic integrity I've heard at this price. Indeed, the way the snare drum, cleanly separated out from the mix, was bouncing off the bass line was better than our benchmark Audiolab 8000A. The opening synthesiser was finely etched, while guitars were tightly located and bass as voluminous as any amplifier at this price has a right to. Singer Damon Albarn's voice was captured with unusual clarity, conveying his tunefulness in its entirety.

The more music the Moth was asked to play, the more its strengths shone through. Although an impressive, big sounding device with a clean, expansive sound, it's certainly not all show. True, there could be more atmosphere in the treble regions, and more grip at the very bottom, but considering the Moth's price, it's almost churlish to criticise. Although ultimately not as capable as the best of the £500 amplifiers, it makes the most of its limited resources to give an extremely capable performance at a surprisingly low cost. Despite its unusual appearance, you'd be foolish to overlook it.

Moth Thirty Series
Moth Group, 10 Dane Lane, Wilstead, Bedford MK45 3HT
Tel: 01234 741152

WORLD VERDICT

A big open sound sets the Moth apart at this price point, low powered though.

Measured Performance

see p105-113
Guarantee (return it within 30 days of purchase for a refund), an Assembly Guarantee (if you can't get it running, the DAC-1 Digital Processor goes together in a snap (typically one hour) and requires only a soldering iron and a few hand tools. We've even included the solder!

The DAC-1 preserved the transparent nature of the recording nicely; I was especially impressed with the sheer depth of the sound stage. The mid bass was rich and lustrous - oh those cellos!...

What was far more important was the DAC-1's ability to portray all of the truly subtle signifiers...

I think it's a killer unit - one that performs far, far better than its $449.00 price tag would indicate.

The DAC-1's component list is exemplary. It employs a pot-ted toroidal power transformer, low ESR power supply capacitors, Crystal CS8412 input receiver, NPC 5813 digital filter, and two Burr Brown PCM1702 20 bit DACs. The output stage is a direct coupled, Class A design, utilizing high speed Analog Devices AD844 and AD847 op amps, firm and foil polypropylene lens capacitors, and 1% metal film resistors. It accepts both Co-ax RCA and Toslink digital inputs.

The instructions were superb in every way.

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"I suspect [The Parts Connection] will have a lot of success with the Assemblage DAC-1. It is easy and fun to build, competitively priced, and delivers fine sonic results too.

Dominic Baker, Hi-Fi World, DIY Supplement, Jan 1995

At $449 US, the Assemblage DAC-1 offers an outstanding value in digital conversion and comes with a Satisfaction Guarantee (return it within 30 days of purchase for a full refund), an Assembly Guarantee (if you can't get it running, we will), a Two-Year Limited Warranty and Phone Support (Toll Free in the U.S. & Canada).

It comes in a small package (the DAC-1 is only 9.5" x 2" x 7") but packs quite a punch. With its fully assembled and tested board and comprehensive, fully illustrated assembly manual - the DAC-1 Digital Processor goes together in a snap (typically about one hour) and requires only a soldering iron and a few hand tools. We've even included the solder!

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"...the DAC-1 is well balanced in its top to bottom tonality.

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"The DAC-1 really is a fine sounding converter and a cost effective way to step up from a CD player that has a digital output.

Tom Muller, The Audio Adventure, Vol. 2, #1

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With absolutely no AV, Home Cinema, camcorders or portable audio, the Great British Hi-Fi Show, held at The Palace Hotel, Buxton, is truly the show for all dedicated audiophiles. A goodly selection of vinyl was on display; Martin Bastin’s “Black Plastic” room was complete this year with his re-styled “Maxplank” plinth (complete with perspex lid). Martin shared the room with Richard Moore who was displaying his new horn loudspeaker system, the Icon, as well as the Chroma, both marketed under the Resolution banner.

Arion Acoustics had their latest amps on display: an integrated, preamp & poweramp, priced from £1050 to £1650. They are also joining the single-ended set with a new prototype PSE amp on display - although no other details were available. Arion also had the new Audio Mecca CD transport called the “Damnation”.

In the Audio Produktion room was a vintage Kerr Mc Cosh preamp, under an Opus 3’s Continuo turntable - a product being re-introduced to the UK, priced at £550. This was fitted with a Cantus linear tracking arm, at what seemed a bargain £350 price tag. This has to be the cheapest parallel tracker since the days of Rabco. Other Opus 3 stuff included a range of concrete loudspeakers, and of course an excellent range of records. Peter Sheehan of Pentacone was at hand with his audio cable system & prototype valve preamps (based on the above mentioned Mc Cosh) and valve poweramps based on Quad IIs.

Nottingham Analogue’s Tom Fletcher had no new turntables this year, but he did have the funkiest new product of the show: his yet unnamed preamplifier. Electronics by Glen Croft, but casework most definitely by Tom. Just look at the picture! It would be rude to call it “pan head” but I found Tom’s styling a major relief from the normal “black box” approach. The whole thing is machined from a solid 10” block. Tom mounts the unit on a wooden base sourced from an old Lancashire cotton mill. He says the wood actually dates back to 1740! History with hi-fi. Perhaps he should call this thing Tudor.
Lorricraft Audio had on display a new record cleaner. Based on the old Keith Monks designs, Terry hopes to offer this professional piece of kit for less than £1000 with all of the vacuum pumps and paraphernalia that go with it. If that is a bit much, Terry pointed out he does offer a record cleaning service. Terry also had his plinth systems for Thorens & Garrard on display, as well as a Beam Echo amplifier. He also revealed one of his secrets at the show, his two pieces of test equipment: hound dogs Pebbles & Sam!

More fancy woodwork & valves could be found in the UKD room. They had the range of Italian Unison Research & Monrio solid-state equipment. The Audiophile Club were also displaying valve amplifiers from Cary Audio, with a few new models. These included a new CD player with anti-jitter circuits, a dual 20 bit converter and a new pair of speakers specially for those who like their amplification to light up. The SP10's are an easy load, if not massively sensitive (91dB/watt).

A Lindley - Tyson filled their room with a pair of monster electrostatics (retail from £15,000 to £30,000!) played through beautifully made amplification (tube & transistor). Also on display was a new (!) Williamson design, which looked very nice.

Chelmer Valve Company had on display a new poweramp called the G.A.T.E. (Glass Audio Tube Engineering). They also had on display a prototype 300B amplifiers.

Esoteric Audio had the new 834L line stage preamplifier on show for the first time (£449) alongside the matching 834P phonostage, 834 & 859 integrated, 509/11 monoblocks and solid state £40,000 Yoshino XXXA amplifiers. Music was coming off a Garrard 301 or an old “first generation” Meridian MCD.

A new horn design from Chantry Audio aims to cross over between professional and domestic loudspeakers. The Hi “Q” SM121 looked very elegant with its pressure unit HF and ported bass. At 94 dB/watt and high power handling it should suit a very wide variety of equipment.

Other interesting new products included Concert Corner’s “Quadrostatic” loudspeaker system, based on original Quad ESLs, with a quarter wave bass system actively crossed over at 120Hz. The original idea was by Michael Furmedge at Concert Corner, although the design work was undertaken by Colin Walker - with P. J. Walkers blessing. Keswick Audio Research showed their new Figaro Evolution and Amber loudspeakers, which fit in above existing models. They also had a prototype semi-omni directional design on display for public evaluation.

On the whole, I found the show very enjoyable and much more relaxed than most others. People had come from all over the UK, and seemed generally very impressed with what was on offer. It is unsure whether the organisers plan to move the show back to Chesterfield, or leave it at Buxton for next year. Overall, I think the Palace Hotel was far better than previous venues, making the whole event a Great British Hi-fi Show not to be missed.
PROJECT State of the Art Analogue

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Together, do Sonic Frontiers’ Transdac and UltrajitterBug represent the last word in CD convertors? Dominic Baker listens in.

Sonic Frontiers are part of the same group as The Parts Connection in the USA, who specialise in supplying audiophile grade components. So it came as little surprise to find their Transdac CD convertor and UltrajitterBug CD interface were built to an extremely high standard under the covers.

Both Transdac and UltrajitterBug (UJB) share the same slim, attractive case which is nicely built with a solid and chunky feel. The front panel of the Transdac holds just a single toggle switch, for selection between optical and electrical digital inputs. On its own the Transdac is connected directly to a CD player or transport, but for improved sound the UJB interfaces between the two, reducing jitter by re-clocking the signal from the transport, supplying a 'cleaner' signal to the convertor. Generally, in my experience, these jitter cleaners smooth CD sound, but the improvement isn’t quite in the same league as sync-locked transports.

To assess the Transdac I auditioned it alongside DPA’s similarly priced discrete Enlightenment DAC. Both have quite distinct characters - where the Sonic Frontiers was tonally rich and full in the bass but lacked weight, the DPA was drier and deeper with more power behind individual notes. The superbly recorded double bass intro to Lou Reed’s ‘Walk on the Wild Side’ had a warm, rounded tone with the Transdac which oozed out the notes fluidly. The DPA was harder and crisper, catching more leading edge detail to give a
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sharper envelope around each note. Through the midrange and treble the two continued to offer a different perspective on a recording. Fone’s I violini di Cermona, a collection of simple pieces for violin and piano, again showed the crisper, fresher quality of the DPA, which exposed more of the harmonic signature of violin and the wide open acoustic of the recording environment. The Transdac was more ordered in its approach, not opening out quite as far as the DPA to allow the recording to breathe, but holding images with greater clarity within the sound stage. And where the DPA could occasionally over-stretch, dispersing images a little too wide and adding a brightly lit edge to upper harmonics, the Transdac stayed in check, giving greater body and a sweeter tone, with notes more cleanly defined.

Their differences continued in more delicate areas of performance too. The DPA definitely resolves more detail, especially the subtle ambient information that helps to set the acoustic around a performance. Where the DPA gave a reasonable description of stage depth and height, the Transdac was more two dimensional in presentation. Weezer’s ‘Say it Ain’t So’ was stripped bare by the DPA which fully exposed the recording’s grunge with great resolve. The Sonic Frontiers was the more musically relaxing of the two, less ruthless in approach but still with plenty of fine, delicate detailing to acoustic instruments. Although not strictly as accurate, the Transdac was certainly a better musical all-rounder. Detail freaks will love the DPA, but it takes more care in terms of system matching to exploit it to the full.

Both the DPA and Transdac are fine convertors as they stand, but both offer a further upgrade route. The DPA offers sync locking, and the Transdac the UltraJitterBug, both designed to reduce jitter levels, which in turn tends to give a smoother, more cohesive sound. Using the UJB the Transdac became even more controlled and cohesive, image sharpness focused just that little bit better to place it well ahead of most competition. The UJB also seemed to help the Transdac through the bass, dynamics becoming more so and timing better synchronised to give a more succinct performance. The DPA still sounded dispersed by comparison even when sync locked to its own transport, with most benefit coming from the cleaner midrange and treble which now had less of a tendency to overstep the mark and exaggerate.

The only thing which really lets the Transdac down is its price. Were it £100 or so less it would be super value. But there’s some serious competition around the £700 mark, from DPA in the form of the Enlightenment and Pink Triangle’s Ordinal. And £700 for the UltraJitterBug, good though it is, will be a little too much to stomach in the face of Monarchy’s equally competent DIP at £245 and various other jitter reduction devices available below £500.

In combination, the Transdac and UltraJitterBug add up to a Pink Triangle Da Capo, or an Enlightenment Transport and DAC, against either of which it can’t compete. The Transdac has a really coherent and balanced sound though, so it will suit a wider range of systems and remain more consistent within them, making it worthy of audition at the very least.

Although not strictly as accurate as the DPA, the Transdac was certainly a better musical all-rounder.
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Noel Keywood assesses today’s best selling ferric tapes.

Here’s a comparative test of ferric cassette tapes. Rather than test every type, we’ve kept it down to those commonly available across a wide range of music and hi-fi stores. It looks like TDK have won the marketing battle, having a 49% share of the blank tape market; every shop had a full range. Sony came a poor second (13%), Maxell are disappearing from view (5.6%) and brands like Fuji, Scotch, JVC and BASF are as rare as Tory voters. So we’ve tested TDK, Maxell and Sony tapes here.

Ferrics are the mainstay of the British market, accounting for around 70% of sales. Why? Simple - they’re cheap! You get five for £4.99 or so. They have two main drawbacks: ferrics are hissier than chromes and good metals, and can suffer earlier treble overload, giving a dull sound if recording levels are pushed too far. Well, this used to be the case, but most ferrics here performed well in this respect, Maxell UR being worst with its -5.2dB SAT 10k figure.

So what should you be looking for in a good ferric? If you don’t record higher than 0VU, you need a tape with low hiss, which varies from -55dB in budget Maxell UR, to -57dB for TDK AD - just 2dB difference. You’ll hear this, but only just, so whilst TDK AD wins on hiss, its advantage isn’t devastating. There are other properties to consider. If you record above 0VU, hiss is less audible but maximum recording levels become important. You’ll need a proper hi-fi recorder to get above 0VU, costing at least £160 or so, since cheaper devices will overload before the tape. Make test recordings to see how high you can record, taking level up a little at a time, while listening for muddle and dulled, messy treble as a sign of overload setting in.

Our tests show TDK AR takes more recording level than any other ferric by a significant margin, except at high frequencies. It has a bass/mid-band overload ceiling (MOL3 15Hz) of +6.5. Only Nakamichis can exploit this, but try +4 or so. TDK AR will give you a soft, warm, smooth sound on most good recorders, with a hint of treble muddle. Hiss will be low though, providing you exploit its potential.

For a brighter sound with cleaner treble, try Maxell XLI-S or TDK AD, both of which have rising treble in their frequency response and a good treble overload ceiling (SAT 10k). TDK AD is a great ferric, less warm sounding than AR but able to accept high recording levels - one of the best.

Of the other tapes, TDK D, Sony HF and FX-1 are all much alike - simple, respectable budget ferrics. Why Sony HF and FX-1 should be so alike I don’t know. Both have a warmer sound than TDK D, as their frequency responses show. So if you want to save pennies, get the one that sounds tonally right.

Finally, we come to Maxell UDI, whose frequency response has substantial treble lift (+2.5dB at 10kHz). This tape sounds brighter than any in the group, by an obvious degree. On a hi-fi cassette deck with user adjustable bias, increasing bias will lower this peak and raise the midband overload ceiling at the same time, giving +4dB or so MOL3 15Hz, resulting in a balanced and good performance.

My simple, if brutal conclusion is that TDK have it in the bag these days. Not only are their tapes on every shelf but buyers appreciate the quality. TDK AD and AR are between them likely to best satisfy ferric users’ needs.
Built like a Russian tank, Omak’s Jewel pre-power amplifier is a hefty chunk of metal. The massive alloy rack case of the power amplifier, housing kilograms of transformers, arrived in a sturdy wooden case (presumably to stop it doing damage to anything else it travelled with) stamped “Air Ukraine”. The Russians aren’t the most commercial when it comes to hi-fi, but the Omak, obviously hand assembled, was extremely tidily put together.

I guess it’s no surprise that one of the first Russian amplifiers we’ve seen is a thermionic design. Those familiar with valves will know Russia is one of the few countries that still produces them, with Sovtek in St. Petersburg well known for the quality and reliability of their valves.

Omak’s £899 Jewel One power amplifier is a chunky design using the powerful EL509 line fly back (TV) pentode in push-pull configuration. Unlike many valve amplifiers though, with this you needn’t worry about your loudspeakers. The Jewel One produces 50watts into 8Ω and 80watts into 4Ω thanks to the high emission current of the EL509, enough to drive most loudspeakers including Quad electrostatics.

The £250 Jewel Two preamplifier is a simple passive affair with separate record and listen selectors making home recording easier and more flexible. There is provision for five line inputs and volume is controlled by a precision 24-step attenuator. The importers aren’t sure whether they will be importing the preamplifier yet, but suggested that if they did, it would be available as a package with the power amplifier at the very reasonable price of £999.

With its heavy build, pro-style grab handles and high power I was half expecting the Jewel One to be a scaled down PA amplifier. But when I first powered it up, it showed just how wrong appearances can be. The Jewel is as sweet and gentle as the sugar plum fairy herself, with an impressively large but warm, sweet sound. There’s a subtle grace to the way the Jewel carries along music, Sherryl Crow’s silky vocals were richly textured, the Omak capturing the mellow mood perfectly.

Pink Floyd’s ‘What Do You Want From Me’ had great weight and power behind it, the bass guitar sending out a shock wave of bass into the room while the lead soared above. The force behind every bass note was quite something, the Omak seemingly having limitless bass depth and power with which to produce it. Dynamically though, the Jewel is a bit blunted. The notes are full and tonally smooth, but the blow is softened a little too much, meaning the Omak can sound a touch sluggish. The leading edge crack from drums was dulled and drawn out, and
lower notes bloomed larger than life. It wasn't an unpleasant effect and could well make this the ideal remedy for systems in need of warmth and body.

Moving to a harder, more snappy recording, the Omak gave a far more convincing performance. Blur's Parklife gave it something to get its teeth into. Although no less impressive in terms of scale and power, the crisper recording gave it less time for indecision. 'London Loves' had good attack from its electronic bass line, and Damon Albarn's voice had just the right balance of warmth and clarity, giving good projection without becoming uncomfortable.

Swapping to a less efficient loudspeaker than the Audiovector 6s I'd started with, and to classical music, its minor blemishes became more apparent. When pushed hard with a full-scale orchestra some grain set in. It was a curious effect, not the normal sharp or gritty distortion of solid state, or the more euphonic tonal unbalancing you get by pushing a valve to hard, but a sharpening of tone and a blurring of the image through the upper midrange. It was almost as if the Omak went out of focus trying to stretch too far out of its depth of field. But this was deliberately pushing the Omak so if you stick to loudspeakers with sensitivity higher than 85dB in a normal size listening room, you shouldn't run into problems. And at the price you can hardly complain.

The Omak Jewel One has all the characteristics of a good valve amplifier, coupled with the drive and force of a hefty solid state device. Midrange and treble are free from grittiness, while the sound stage is large and open, filling all corners of the room. Although a good triode or single-ended design can reveal more atmosphere around a recording, and a powerful solid state amplifier has more control with greater transient attack and stronger dynamics, the Omak is a superb compromise. It combines some qualities of both technologies in a package very attractively priced in comparison to its competition, and powerful enough for any modern loudspeaker. I can't think of another valve power amplifier within £500 of the Jewel One that offers anything like as much.

Omak Jewel One £899
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WORLD VERDICT
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Measured Performance see p105-113
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- Ken Kessler, Hi Fi News

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HOMELY ADVICE

Acoustics consultant Douglas Floyd-Douglas shows you how to upgrade your listening room.

So you've just heard a pair of loudspeakers that sounded fantastic in your friend's listening room. "Funny that", you think, "even his old Leak Sandwiches sounded great there once upon a time". In fact, you rarely remember leaving his house without thinking just that. How can you get the same experience?

Matching speakers to rooms properly can bring dramatic improvements to the sound of your system. In this article, I want to discuss common listening room characteristics that seriously influence loudspeaker sound quality. Standing waves and modal degeneracy affect bass quality and can cause boom and absorption, rendering music lifeless, dull or muddy.

Let's take a look at three rooms, of various proportions and with different furnishings, but fitted with essentially the same equipment.

Room 1

Size: 19ft long x 14ft wide x 10ft high
Description: A Victorian classic, with high-ish ceiling, ornate covings and large, ornate ceiling rose and pendant light fitted with a fabric shade.
Furniture: Sofa, bookshelves down either wall, a settee with venetian blinds behind, plus various items of furniture. The floor has a fitted carpet.

Characteristics: Widely differing length, breadth and height dimensions in 1:1.4:1.9 ratio, a characteristic that staggers room resonances so they do not add to give a dominant boom. Reasonably high volume (2660 cu. ft.) gives a low resonant amplification (Q) as well.
Excellent diffusion (equal dispersion of reflected sound energy) from random surfaces of bookshelves, ceiling and blinds behind listener.
Avoids selective high frequency absorption of curtaining. Diffusive boundaries ensure no 'dry' or 'sweet' spots, so that the listening experience is pleasurable from a number of positions.

Sound Quality: Noticeable sound stage that reaches beyond the speakers. Linear response evident due to broad bandwidth and distinctive dynamics. The design of the room optimises intelligibility by ensuring accurate perception of primary signals and good diffusion of reflected signals.
This preserves the integrity of the original 'mix', portraying the music as intended, and minimising possible colouration and distortion arising from strong reflections off room boundaries and hard furniture.
This room is also 'bilaterally symmetrical', i.e. the left side is a mirror image of the right. Bilateral Symmetry is presently the most favoured approach to professional studio design, for obvious reasons, and shares the same benefits in a home environment.

Room 2

Size: 16ft long x 8ft wide x 8ft high
Description: Within a modern house with low (8ft) ceilings, this long (16ft) but narrow (8ft) room serves as listening room and spare bedroom.
Furniture: Bed at one end, with a feather duvet. The window is covered by heavy curtains. There is a large settee and the floor is covered by a thick pile carpet. A wardrobe sits between the speakers.

Characteristics: The height and the width are identical, which causes standing waves between these parallel surfaces. To make matters worse, the length of this room is exactly twice its width and height. This relationship will produce severe audible distortion, due to the room amplifying overtones of the basic resonance by up to ten times.
These standing waves can also cause phase-cancellation (apparent...
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disappearance of musical content) and 'louder' resonance and boom in some areas of the room. The abundance of selective absorbers (bed, curtains, carpet) in relation to the size of this room will result in mid/high range detail being indiscriminately absorbed and lost, worsening matters.

**Sound Quality:** The modal symmetry of this room will cause boominess at around 140Hz and multiples thereof, giving lumpy upper bass. The soft furnishings remove high frequency detail, which destroys directivity cues and location of instruments within the sound stage, wrecking the stereo effect. The projecting wardrobe edges will ruin stereo effect.

**Comments & Solutions:** Mounting the ' speakers on stands sited away from the wall and forward of the wardrobe goes some way toward relieving the boominess, by driving the room modes less efficiently, and will improve stereo image sharpness. Ensuring the speakers are at ear height increases mid/high frequency energy, improving clarity. Removing or changing items responsible for high frequency absorption (e.g. soft furnishings and heavy curtains) will improve clarity. Appearance of a friendly 'flutter-echo' (clap your hands) will indicate that you have retrieved your high frequency energy.

Adding, say, eight inches to the rear wall by installing high bookshelves filled with books would successfully cure much of the room-boom problem and provide useful rear wall diffusion. We also need to preserve precious mid/high frequency energy and distribute it around the room efficiently. Using a mirror to track spectral reflections (HFW Nov ’94) locate the points on the side walls and especially the ceiling. At these points install cardboard egg-box diffusors, effective in the range around 2kHz, which will improve clarity and intelligibility!

**Note:** If you need higher frequency treatment, you can varnish the surface of the boxes to decrease their absorbency and increase reflection. On the other hand, if treatment of 2kHz and below is required, you will need to increase the surface area and absorptive characteristics of the unit by backing it with carpet or underfelt. Most hi-fi loudspeakers will sound bass light in it, and two-way designs will have a hard job going loud enough without strain setting in.

**Comments & Solutions:** This room has few limitations in terms of modal response or even boundary reflections. The room ratios are right and despite velvet drapes and bay windows (both eek! points) the room will perform well. This is because it's too large for boundary conditions to have any really detrimental effect on the sound. It will also support deep bass, whilst the enormous enclosed volume will ensure room modes have low amplification (Q), meaning little boom. However, only big loudspeakers with copious bass will sound right (they'd sound bass heavy in smaller rooms). Small, bass light two-way designs will sound lost in this room and are also unlikely to have enough power handling to go loud gracefully. It is worth contacting a specialist who will be able to advise on an appropriate loudspeaker, plus powerful amplifier, in order to fill this room with music. Anyone that can afford to own a drawing room of this size should find the cost of compatible audio equipment a mere sniff in the background of Berlioz's Symphony Fantastique.

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**Room 3**

**Size:** 29ft long x 21t wide x 15ft high

**Description:** Baronial dimensions, with very high ceiling, bay window, parquet floor with various individual rugs and carpets. Furniture: Ceiling to floor, heavy velvet drapes by bay window, heavy traditional cloth furniture, plants, tables, chairs and numerous pendant lights with ornate shades.

**Characteristics:** This room has identical proportions to Room 1, but dimensionally it is one-and-a-half times larger. However, its volume is more than three times greater (9135 cu. ft) and will require much more acoustical energy.

**Sound Quality:** Potentially wonderful, though loudspeaker location and type, as always, will be important. Also, to generate a stereo stage at the seating position, the loudspeakers are sited well away from the walls, deriving no bass reinforcement from them, nor from enhancing room modes. Consequently, most hi-fi loudspeakers will sound bass light in it, and two-way designs will have a hard job going loud enough without strain setting in.
WORLD DISAPPOINTS A/V ENTHUSIAST

Having read your response to Mr Tony Hicks in the May issue (page 41), I am very surprised and disappointed with you.

I, like Mr Hicks, have an A/V amp as the central component of my system, and yes I do like to watch movies/videos just like other A/V enthusiasts. However, I also spend as much time with the effects off listening to music from CDs, tapes and vinyl.

I wouldn’t put my A/V amp in the same league as any similarly priced hi-fi amp, but my point is it’s still an amp. From your response to Mr Hicks’ letter this means that because it has Dolby Pro Logic and video switching in it, it ceases to be hi-fi. How can you so strongly reject the A/V amp on these grounds when in the very same issue we are given news of an Amphilsound processor and Richard Brice gives us a video switching circuit for the Maximalist preamp?

Well, that’s me sounded off. I would ask the same of you as Mr Hicks did, test A/V amps as hi-fi amps for us. We value your opinions. I could understand your scepticism if we were asking how the explosion scene in The Fugitive sounds, but we’re asking the same questions as everybody else.

Whilst on the subject of source components, what CD player would you recommend to match my Yamaha amp and B&W P6 ‘speakers? My old Philips has given up the ghost - how about the Marantz CD63?

Thanks for taking time to read this letter. If you print it at all, I’ll be surprised, but this time pleasantly!

Paul B. Furze
Cumbria.

Thank you for your candour, but we feel that tested as hi-fi products, CD does not have listenability. The direct result of this is, those already interested in hi-fi have become bored and dissatisfied. Would-be new recruits have looked, listened and turned away.

The excitement has gone and it is that ability to hold our interest that we need to put back into the listening experience. It would appear we have a great opportunity to do so in the new formats Noel writes about. Let’s hope this time that the paying public will get the recognition, results and rewards they so rightly deserve.

I believe CD has done us all a great injustice and I sincerely hope that promised improvements in HDCD will bear fruit, to the benefit of us all.

Colin Whitely
Otley, West Yorks.

The remarks you made in the April edition (“CD’s hard, sterile presentation is now acknowledged as deficient, and the race is on for improvement”) will have many people breathing a sigh of relief and hoping the CD curse is now at an end.

Not just the long suffering paying public, but those in the industry - and indeed those who are not.

We can make all manner of excuses, but only if we are prepared to face up to the mistakes of the past can we hope to revitalise the industry and recapture the enjoyment, pride and satisfaction we had, and the honesty that once was the very heart of the hi-fi industry. People bought equipment because the sound excited them. Now the salesman is forced to be more interested in “Random Select Memory Recall” or some other meaningless feature. People are buying hi-fi to listen to music. Music is what matters, and it is our love of music and our desire for enjoyable reproduction of music that will in the end dictate the market. Any market based on profit dependent manipulation is doomed to failure. You MUST give something in return, otherwise people will stop spending their hard earned cash.

CD does not have listenability. The direct result of this is, those already interested in hi-fi have become bored and dissatisfied. Would-be new recruits have looked, listened and turned away.

Mass produced audio has become another commodity, like TVs or microwaves, and CD has been strongly integrated into it. A commodity is sold by specs., such as power output, appearance and facilities. The market is addressed through advertising. In terms of sound quality there isn’t really much of consequence to offer, because everything is built down to the lowest price. Instead, you get conspicuous gimmicks, like remote-controlled, motor-powered tweeters or digital signal processing that adds Church Mode and such like. It’s depressingly facile stuff, designed to appeal at a superficial level. Sound quality is not a foremost concern.

In this world also, hi-fi magazines act purely as buying guides, by the
all-in-one A/V amplifiers would find themselves facing dedicated hi-fi separates from specialist British manufacturers, and frankly I don't fancy their chances. The additional cost of the processing circuitry means savings have to be made elsewhere, which doesn't auger well for sound quality.

In Britain, the A/V market is struggling for credibility, as large Japanese manufacturers cram DSPs into crude amplifiers and market them as "quality" audio, which is insulting to manufacturers of the genuine article. Happily, most of this Japanese bargain basement A/V equipment isn't actually available in its domestic market, as Japanese buyers prefer to invest in quality hi-fi and separate decoders, referred to as "Hi-Vi". Happily, this is catching on here as UK specialist manufacturers like Arcam start to make decent A/V separates with an eye on sound quality.

The Amphi-sound system is, as Kinshaw states, designed for hi-fi (music only) systems, while Richard's Maximalist preamp is his personal DIY project. As for your CD player, I'd go for an Alpha 5 Plus or Marantz CD63SE, either of which could make your DSP as redundant as an integrated circuit in an Audionote Ongaku. DP

Being engineers as well as journalists, we know how to design and build a reliable solid-state amplifier that measures perfectly, but uses a few pence worth of everyday (i.e. not audio) parts (hardware like chassis work and transformers excluded). This type of design forms the heart of most mass produced amplifiers - including AV amps and it is no wonder to us that as a result they mostly sound flat, compressed and boring.

I have personally spent years reviewing mass market hi-fi of this sort and can assure you that differences are often quite small and the overall standard of reproduction depressingly low.

As editor I do make some apparently peculiar (to outsiders) selective decisions about certain matters and one, that irritates some in the audio industry, is that we will not devote precious time, paper and space giving editorial coverage to mass produced, poorly differentiated, mediocre commodity products like A/V and micro/min/midi...
Of all the loudspeakers around, the BBC’s LS3/5a is probably the only one to have made it from model to supermodel. Though not entirely in looks: with its cloth grille it’s still more seventies than etiolated Naomi Campbell nineties style. Now, their Signature version comes with a fancy plaque on the back. It may not be quite as expensive as Elizabeth Hurley’s notorious Versace dress, but it certainly doesn’t look as though it’s constructed mostly of safety pins.

For this review, Rogers also sent over a pair of AB-1 subwoofers, fashioned out from similar Rosewood veneer. On their spiked plinths they look rather like something a Ming vase or bust (of Raymond Cooke, whose signature gives the KEFs their nomenclature?) would sit on in a museum.

The point about reminding readers that the LS3/5a was originally a scale model for research is to emphasise that in BBC parlance they are Grade 2 monitors. The current more expensive LS5/12a, mini-monitor, is a Grade 1. The difference is that you wouldn’t rely on 3/5as alone to find out the truthfulness of a music balance. In BBC parlance, the 3/5as ‘honk’, ‘quack’ and ‘bark’, pretty self-explanatory terms, but these little misdemeanours are ‘tuned out’ by sound balance engineers who adapt to them. If you want to identify the give-away animal noises, as one listener did within minutes of their insertion into her system, try Vivaldi’s flute, oboe and bassoon concertos, instruments that are prime triggers for all three. One of the more irritating effects - though a listener rapidly drops into forgiveness and tunes it out is when staccato piccolo or flute notes do a kind of ‘hop skip and jump’ up the scale, some notes recessing, some coming fractionally more forward. As domestic speakers, this hasn’t stopped over 40,000 being sold.

Why? Because of all the loudspeakers on the market, this miniature has a naturalness allied with pin-point imaging that still puts it up with top ranking loudspeakers at any price. Especially for jazz: as a listening
friend enjoying a third Miles Davis album said, "I could live with this." Somehow the 3/5as produce that splendid 'out-of-the-box' experience, transforming the living room into a breathing, smokey club. Even when the album isn't live and you only hear the occasional tap of a foot or a "Yeah...!" somewhere at the back, you are absorbed enough to imagine the sound of your own glass clinking was actually recorded. Very Zen-like, that experience.

All alone and subwooferless, the 3/5as possess one other domestic flaw. They're by no means as free and easy with dynamics as their newer 5/12a stablemate. Here they betray their miniature size, scaling down the Vienna Phil to something rather smaller. Even on solo instruments, particularly brass or lower strings, the effect can be of something that needs a bit more body building.

Years of devoted experimentation on the part of many owners has come up with some cures, by far the most effective I've heard the use of heavy slate stands with the birch-ply cabinet mass-loaded with another lump of slate on top. Then, saxophones, timps or the resonances of solo cello in Bach's Suites really rip free. But this is an expensive cure. Which brings us to the AB-1.

Here, we have stands and subwoofer in one, although strictly speaking the AB-1, not plumbing the depths of Hertz down to serious organ pipe frequencies, is more a woofer than a sub. What it does very effectively is put on muscle. More Superman than Supermodel, with one bound the LS3/5a was free! The mid-range is opened up quite remarkably, putting a spurt on dynamics that respectably increases pace and crispness. It also goes louder more easily; despite feeding the pair with up to 150W, and

"They are not the kind of thing to suffer spats in their relationship. This marriage won't end in Reno."
.... continued from page 41

Systems. This is not a matter of price, so much as approach. There are other magazines that cover this sort of thing...

NK

THE GOLDEN AGE OF WIRELESS

Ever since the transistor reared up on its three skinny legs I have heard people talking about the unreliability of valves. So to allay the fears of would-be constructors of your range of fascinating circuits, as well as buyers of valved equipment, I would like to relate this tale.

Circa 1933 my uncle, the late Bill Blockwell of Milford Haven, bought a Columbia 352 D.C. straight four-valver. Soon afterwards one valve had to be exchanged. He used this wireless (we didn't call them 'radios' then) until 1939 whereupon he bought a Vidor trawler-wore. He also gave me the Columbia. You can imagine the expression on my mother's face when she saw me coming down the street with this lot.

That Columbia was still functioning without fault when in 1947 I came back from the services - 14 years with one valve breakdown as the only fault. I decided to improve its performance. Using circuits from the 'Osram Valve Guide & Book of Circuits' (1939 edition) I rebuilt it as an AC/DC set with Octal valves and push-pull input and output transformers made by Varley. These were given to me by a man who said he bought them in 1929. I used two KT33C valves in push-pull (we were still on DC mains).

As this needed more room than the original cabinet provided, I put the lot in an old Murphy console cabinet I found. You couldn't get any wood in those days and I had a fight with the woodworm in the old Murphy cabinet - remember the Goon show: 'Can't get the wood Minnie', 'twas true. The filter chokes came from an early thirties Pye wreck I found in a dealer's dustbin in the thirties. Two U31s rectified the AC mains which we knew was coming.

A couple of years after building it I chanced on the 1938 edition of the aforementioned booklet and noticed the same circuit for the R.F. section had appeared in the earlier edition with different valves: VMP4Gs, but the bias resistors of 150 ohms, correct for the VMP4s, were left at that value in the later circuit instead of being increased to 500ohms. I put this right and immediately discovered why the RF stages had appeared slightly unstable. What this had done to the emission of the KTV65s I could only guess.

The AC mains arrived in the fifties and the electrolytic smoothing capacitors were changed. This was always done when an AC/DC set had been on DC for a long while. Some few years afterwards, the mains dropper fell apart and I fitted a better one.

By 1987, reception conditions were so bad that my father could not hear his racing results on the only station he listened to, so I gave him a 'new' set, my 1947 Philips 170A which was very selective. The modified Columbia had been working near-enough 39 years with the same valves and when I took it away in 1987 you could still hear it, in the old man's words, 'half-way down the street'. He was proud of that old heap. I had been using the Philips since 1967 and that set lasted without fault until the year before the old-man died in 1991. That's 20 years without trouble. I haven't bothered with the Philips, but a cursory glance indicates a fault in the detector circuit. The modified Columbia will still work, but the gain is down on a couple of valves. I left the cabinet behind for the descendants of the original woodworms.

No doubt many of your older readers could tell similar stories, so newcomers to valves ('tubes' go in tellies) need have no fears. Provided British and American valves - and not forgetting the old Tungsram marque - are run within their ratings, the average construction should last, like the Columbia, long
after its design has become out of date.

You may ask what am I using today. Well apart from a modern radio cassette which I use for cassette and FM, I have a 1937 H.M.V. 650 ten-valve, five-waveband receiver with RT63s in push-pull (ten-watts output and you could hear it on a modern big speaker). I have been running it for ten years and it has just developed a fault, loss of bass response, but at around 56lb (25 kilos) it’s getting a bit heavy to hump around on the service bench. You would think that with all those electrons boiling off the cathodes for all those years it could have become lighter, not heavier. It should have an RF gain control fitted to cope with modern conditions.

Just think, if my father had wanted to buy that old HMV in 1937 it would have cost him at least 13 weeks’ wages, assuming he had a job instead of £1.20 a week dole money. You moderns can buy an awful lot of tack today with 13 weeks’ wages. I could tell you about the GEC AC/DC radio that I have and first saw in 1939, 55 years with two faults, but that’s another story.

John A. Munning
Pershore, Worcs.

FASHION VICTIMS
A few other reasons for the increase in vinyl sales: style (it’s cool and black), teenage rebellion (it’s unconventional, and parents have CD players), the discovery of new technology (it could be new to a twenty-something), nostalgia, taste, snobbery (professional and otherwise), techno-phobia, one-upmanship, etc.

Don’t get too carried away on the vinyl trip. Anyone investing anew in vinyl players will be rather annoyed when super CD comes along and they have to start again. How long have vinyl and CD been around? Must be a bit of difference, and CD has almost caught up pretty quickly, don’t you think?

Nick Symonds,
London.

I agree vinyl is fashionable at the moment - it’s almost a cultural icon for many people who’ve yet to reach their twenties. It seems to have been invested with “authenticity”, possibly because it’s cheaper and needs a degree of dedication to give of its made to run-of-the-mill new models year-on-year. The bottom line is the new Nippondenki CD301 is usually only marginally better than the CD300 it replaced - not quite the solution to the meaning of life as is often suggested.

DP

You last point succinctly highlights CD’s problem: it was meant to be ahead, not “catch up”. That anyone could possibly think, as so many appear to nowadays, that LP has superior sound totally undermines CD’s raison d’être, relegating it to a should point out that I am not familiar with the Soro, but that I am the owner of a pair of Type Es.

Firstly you are correct in saying that the speakers work best on eight to ten inch stands (and that they are visually obtrusive). If you reviewed them using the stands in your pictures however then I can understand some of your findings, as these appear to be around eighteen inches tall and not sufficiently rigid for such large speakers. I’m not sure this is enough on its own, however, to explain some of your comments.

Getting the best out of any system requires considerable investment in time and experimentation. Amplifiers, particularly valve types, can take a number of days or even weeks to reach optimum performance and this is also true to a lesser extent for loudspeakers. Again, if the components were just listened to straight out of the box, this might go some way towards explaining your results. I would be interested to know just how long the listening sessions lasted, and whether there was any change over the period.

Hi-fi is at least partly a matter of taste, but even allowing for this I find it difficult to square your results with what I hear on a daily basis. How a combination which sounded “musical, forthright and fun” could simultaneously be “having trouble with low level detail - there wasn’t any” is a little difficult to grasp, particularly as it also apparently suffered from “harshness” and “lack of space and ambience”.

I have heard and used the Type Es with amplifiers ranging from transistor designs such as the excellent Class A Sugdens through various valve systems up to seriously exotic Japanese

...continued on page 47...
HEAR HOW THE LINN KARIK IS THE SONDEK FOR CD

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amplifiers such as the Ongaku. The common features in all these combinations were great clarity, particularly noticeable on voices, good definition of instrumental timbre and a wide and deep stereo soundstage. Given your reviewer's liking for 1970s new wave recordings and Noel's comment on imaging in front of the piano of the speakers, I strongly recommend listening to Lou Reed's 'Walk on the Wild Side' to see how far forward of the speakers the girl singers project by the end. A disturbing experience with the volume turned up and the lights turned off.

It did occur to me that, given your comments about the system being "light in the bass" and presenting "two channel mono" that you might have connected the speakers out of phase, but I'm sure that seasoned professionals such as yourselves would not have made such a basic mistake.

As I said before, these matters often come down to personal preferences, but if any of your readers might be put off by your review I can only say that the Type Es are capable of sounding vastly better than they obviously did on this occasion.

Alan Bateman.

I am happy to hear that the Es suit your tastes and don’t fall short of your expectations. Naturally, like every other product we test, we measured them before testing to check the review samples weren’t substandard and spent considerable time experimenting with placement, partnering ancillaries and tuning. They came fully run in.

Unfortunately what we heard wasn’t as impressive as we’d hoped. This sentiment was shared by everyone at World, including World Audio design engineer Andy Grove, who has more experience of AudioNote products than most. Although they had a lively sound, considering their price, it was deficient in too many areas for them to be recommendable.

We said the Type Es were lighter in the bass than KEF Reference Series 2s, which have heavy deep bass; we did not say they are bass light. Quite the reverse, they have massive, resonant bass, as the review makes clear. DP

Regarding the photograph, I spend a considerable amount of time with our photographer Paul Hartley to make sure that the products look as attractive and appealing as possible. The equipment is rarely pictured in the situation it was reviewed. For example, the photograph of the Sonic Frontiers Assemblage CD convertor in the January issue shows it hovering in mid air; for the review it was firmly seated on a proper equipment rack. The Es were shown on taller stands to suit the photo, for the review a low 10” stand was used as indicated in the text. DB

THICK PLY IS THE SECRET

I was pleased with my transmission line ‘speakers, but just had to try something better! As you can see from the photo I’ve sent, my new ‘speakers are made with a more solid 1 inch thick marine ply. I have used the tweeters and midrange from my MC4s and the crossover for the tweeter and midrange. Wire is single strand solid core Audioquest Midnight 2. Woofers are an old 12inch pair of Wharfedales I got for £25, with the same rating as the MC4s: 90dB, 200W. I bi-wired the treble and midrange through the crossover to my EAR834 amp. The bass driver was wired to the speaker terminals as it was too big for the MC4’s crossover. They work really well this way, with a bigger sound, and with the box being more solid 1 inch ply, treble is crystal clear. I also made wood supports for my deck and amp. The deck now has a marble support for solid bass. I also have an ART1 and am saving up for an SME V.

Derek Walker Hornsea.

I’m glad to see you are still experimenting and improving your system. Although the ‘cupboard’ transmission line ‘speakers you had just finished building last time you wrote have already been replaced, it seems as if you are enjoying and upgrading your system all the time. Keep up the good work and keep us informed.

Derek Walker Hornsea.
TONE DOWN THE MIDI

I want to buy a separates system. My five year old Aiwa system was the best sounding midi I could find at the time. It consists of an Aiwa DX-666 separate CD player with ribbon interconnect to a CX-790K unit which is a tuner, integrated amp. with 5 band graphic equaliser and twin cassette deck. Loudspeakers are two-way bass reflex designs.

My musical taste is Lou Reed and The Velvet Underground. I have rare CDs and a variety of live recordings on cassette tape of concerts (1966-1970) which are surprisingly good quality. I want to build my system around these tapes, buying a deck, amp. and speakers, with a CD player later.

I need the lowest 70Hz bar on the graphic equaliser on maximum while other bars stay at zero. This adds necessary “warmth” to CD sound and is essential for controlling tonal balance from my tapes too. The sound is never boomy but more full-bodied and “as I believe it should be”. For instance, with the bar on maximum, drums come across more forcefully.

I think you'll agree with my choice of Nakamichi DR-2 cassette deck to bring out the best from my tapes. Now, though, I need some experienced advice on what amp. up to £800 and similarly priced speakers will allow the DR-2's slight bass lift to come across which I need with my type of rock music, and give similar results when I add a CD player later.

My existing speaker size is ideal for my room but I would also consider tall floorstanders too. I want presence, dynamics and transparency, while still having a simple bass/treble control with balance adjustment if possible. What are your opinions? How about the highly rated Castle Chesters? What would be your shortlist, bearing in mind I plan eventually to add a new CD player?

S. Grachvogel
Enfield,
Middlesex.

Well engineered tone controls are a great help, giving a gentle and controlled lift at frequency extremes. For top sound quality you need to be looking at a good UK-built integrated amplifier, but few of these, being minimalistic in approach, have tone controls. The obvious model is the Audiolab 8000A, which offers everything you need including balance and separate listen/record selectors, useful for monitoring recording quality. It's powerful too, so will drive most loudspeakers with ease.

The Castle Chesters you mention are one of my favourites at the price, with a clean, punchy sound with excellent bass depth and power. Mission 752s are also superb, but have a different character, lighter in the bass but...
Consider the Nakamichi DR-I for top class sound from cassette.

faster and with more presence. Both are excellent, so I recommend you take a close listen to them with the Audiolab and preferably in the comfort of your own home. Either loudspeaker with the Audiolab and Nakamichi DR-2 will give you a top quality sound and enjoyment for a long time to come. DB

You will find that user adjustable playback azimuth on the more expensive Nakamichi DR-1 gets more from your tapes, unless they already have 'perfect' recorded azimuth (which is unlikely). The way to check is to play one of your tapes on a DR-1 and adjust azimuth, listening to cymbals and such like. Try using headphones for this test, since considerable cross-channel phase changes

Continued on page 54...

SELLING THE SONDEK FOR CD

My current system consists of a Valhalla Linn Sondek LP12 with Alphason Xenon arm and Audio Technica AT-F5 cartridge, Mission Cyrus One amp, Arcam Alpha Plus CD player and Celestion DL6 speakers on spiked Target stands.

The problem is my daughter has now become mobile I now require the speakers be wall mounted. I have considered two models, namely Mission 751 and Linn Tukan speakers with dedicated wall brackets. Which would most suit my current system? If the Missions are better, which wall brackets should I purchase?

Also, for various reasons I am considering the sale of my LP12 and going CD, upgrading my amp to perhaps a Linn Majik-I (if I purchase the Tukans). Were I to go down this route and have my Arcam Trichord modified, would this bring its sound quality close to that enjoyed from my LP12?

D Mudie Dalketh, Midlothian.

I have heard very encouraging results with Tukans on the end of a Naim Nait 3, especially when pushed hard up to a rear wall. They would certainly be superior to your Celestions. Although the Majik-I is a good amp, I'd still plump for the Nait 3, or if it's a more sumptuous presentation you're after, the Sugden A21a.

Regarding the Arcam/Linn dilemma, I'd say you'll have to spend far more to approach the sound of the Sondek, let alone better it. DPA's Renaissance player at £895 is just about minimum. A Clock 2'd Alpha would have less detail, weight and swing than your Linn. Why don't you upgrade the LP12 instead with a Cirkus and a modern cartridge like the Ortofon MC15 Super II? DP

If you're thinking that CD will, in the long term, provide more enjoyment than LP, watch out; read Mr Miller's views further on.

We still find LP subjectively impressive and more amenable in the long term than CD, even if it is now more expensive and less convenient. Don't be quick to dispose of your LPs; replacing them with equivalent CDs will be costly and offer no more enjoyment. The two mediums sound different because, fundamentally they are, and they will never sound the same. Arguments about which is best, based on technology, are specious; choose the one you get most enjoyment from. In your case it might be cheaper to upgrade LP, as David suggests. If you move to CD, I recommend caution and realism; in terms of sound quality it has its own problems, offering unequivocally better results more at the low end of the market than at your level. NK

of the Month

The writer of the most interesting system query will receive a free set of super Connections Jade interconnects.
Dominic Todd pits Dual’s CS505/4 UK against the Pro-Ject 0.5 to see if it still controls the budget turntable market.
The Dual CS505 can probably take its place in history as the most recommended turntable of all time. For a whole decade it was the one to have for those building a budget hi-fi system. It succeeded by offering audiophiles on a tight budget good sound with the convenience of semi-automatic operation. The CS505/4 has been with us for nearly three years now, and in its latest incarnation (505/4 UK) offers an Audio Technica AT95E cartridge and felt mat as standard. Otherwise it remains unchanged, no bad thing as build quality is up to typical German standards.

The £200 Dual features switchable 33/45 speeds, a detachable headshell plus auto stop and cut-off. The antithesis of most budget decks these days, those with little more than a power switch, it was pitted against the Pro-Ject 0.5, one such fully manual machine under £160 which served as a suitable benchmark. I hooked up both to my system to see whether the no-frills approach of the Project was really necessary, or if the Dual's convenience would win through.

The first disc spun was The Cranberries’ ‘No Need To Argue’, where the Dual came across as a very good budget turntable. The soundstage was noticeably superior to my system to see whether the no-frills approach of the Project was really necessary, or if the Dual’s convenience would win through.

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Tubular Bells II allowed both decks to show off their generous, enveloping sound stages and pleasing lack of compression. The 505 could occasionally appear coarse in the treble, most likely a symptom of the baby Audio Technica’s exuberance. Despite plenty of presence in the higher frequencies, detail from the 505 was a little blurred, cymbals lacking the crispness and edge of the Pro-Ject. Otherwise, the Dual gave little away. Bass was up to the job of handling the lowest notes synthesisers could throw at it. Once again it was the Dual that managed to dig just that bit lower too.

Mid-range performance was just as impressive. Although the 505 could sound rather euphonic, this quality gave it an easy going nature, making it pleasant to listen to over long periods. Not just because the 505 glossed over detail - it was more the way the Dual seamlessly strings music together, allowing it to flow from the ‘speakers.'

The fully manual Pro-Ject still has the edge on sound quality, being that bit more revealing. That said, the Dual could be just the tonic for an over-exuberant system. Or if the deck is for family use, then its simple semi-auto operation is pretty much kid and granny proof! Either way, combined with Dual’s reputation, the CS505/4 UK makes a pretty convincing case for itself.

Dual CS505/4 £199.95
RAM UK Ltd.,
16 Willan Trade Estate,
55 Waverley Road, Sale,
Cheshire M33 7WY
Tel: 0161 973 0505

WORLD VERDICT

The Dual CS505/4 is a nice package with an enjoyable sound. Low price makes it good value too.

Measured Performance see p105-113
Linn’s policy of constant lifetime improvement has resulted in the latest Karik III CD player. David Price takes a listen.

Many remember the shockwaves when Linn introduced their first Compact Disc player. Previously responsible for some highly convincing anti-digital invective, suddenly their own version of the devil itself appeared, in the shape of the Karik/Numerik two box player.

Several years later, Linn have established quite a name for themselves as CD player manufacturers, producing finely engineered models like the £1597 Karik III tested here, their top integrated CD player upgradeable with
the addition of the £1129 Numerik converter.

As time waits for no one, especially where digital audio is concerned, Linn have just introduced improvements to both the entry-level £839 Mimik tested in April, and the Karik. They centre around the use of surface mount technology, with redesigned circuit boards featuring ultra short signal paths with high component densities, making for improved isolation of the sync link, lower jitter and (so the theory goes) cleaner sound. The latter is also one of the first Linn products to benefit from their improved Brilliant power supply.

The Karik certainly bears more than a passing resemblance to its baby brother, but as soon as you switch it on, you find the Mimik’s lightweight disc tray is replaced by a metal diecast unit that moves in and out with great speed and decorum - certainly the first sign of where the extra £700 or so has gone. There’s also a neat little flap which conceals most controls. True, they’re small and fiddly to use, but the player exudes such a feeling of quality it doesn’t seem to matter. At the back reside two sets of audio outputs, an S/P-DIF digital output, sync output, remote out and a diagnostic socket to facilitate easier servicing at Linn dealers.

Partnered with a Meridian 551 integrated amplifier and Linn’s revealing Tukan loudspeakers, the latest Karik delivered one of the most impressive performances from silver discs I’d heard since the HDCD system tested in February. Compared to a similarly priced reference Sony ES player, the Karik was far more expressive and dynamic. Lou Donaldson’s ‘Everything I Play is Funky’ assumed one of the largest, deepest soundstages I’ve heard from CD, with an unusually powerful Fender bass line hovering out of the ‘speakers, while Melvin Sparks’ guitar projected deep into the room, its texture and envelope caught with eerie precision.

Possessing a vital spark of life, this player made listening to music a real event. This is largely due the way it conveys musicians’ phrasing, imparting whether drums are smashed or brushed, or how strings are pushed or plucked. This is interesting insofar as it’s the traditional forte of the Linn LP12 turntable, particularly when Lingoed. While the sub-£1000 Mimik and LP12 Basik are poles apart, the presentation of their respective bigger brothers gets closer together, the Karik sounding far more analogue-like than its baby brother.

With Corduroy’s ‘High Havoc’, it again produced a striking soundstage, with much more space than the Sony could muster around the opening drum roll. It’s as if the Karik takes you right to the centre of the recorded acoustic, with so much atmosphere you can almost hear the studio walls. Instead of the plastic caricature CD usually turns bass guitar into, it was a raw, reverberant instrument. The brass section had a satisfying rasp, earthy but never uncouth, while tambourines came across with rare delicacy and finesse.

After such a pleasant initial surprise, I tried to wrong-foot the Karik with some tricky recordings. 808 State’s ‘Nimbus’ is a complicated affair with many different rhythms going on simultaneously. But the Karik was iron in its resolve, and simply delivered an immensely enjoyable, detailed performance. Kick drums were tighter, more precisely located and more voluminous than any player I’ve heard, including top two-box machinery from DPA and Audiolab. The hi-hat sound was intricate, with its rhythms superbly carried. The Karik’s adeptness at soundstaging was further reinforced, with the main keyboard pads spatially well separated from the drums.

The Karik was equally well deployed with the Happy Mondays’ ‘Loosefit’. Most evident was the precision with which it located singer Shaun Ryder’s voice between the ‘speakers, giving real three-dimensional stage depth. The big Linn player separated the vocal part out from the mix and caught both the studio reverb and the space between singer and microphone with disarming clarity.

It’s difficult to fault this player. The only real criticism is its tonality. In no way grey or barren, it nevertheless lacks the sumptuousness of converters like the Pink Triangle Da Capo. There’s also a touch of thinness in the upper midrange which may intrude if unsympathetic partnering equipment is used. The final point worth making concerns the Karik’s timing. Where the Mimik imposes its own explicit, ordered sense of rhythm, the Karik is far more supple and human. But there’s still that last nth degree of fluidity it loses to its LP12 Lingo cousin, with the slightest analytical edge to the way it makes music.

But this is to divert attention from the fact that this is one of the most musically satisfying Compact Disc players on the market, with the rare (for CD) ability to pull you into the music and engross you. If you found the original Karik/Numerik too clinical for your tastes, the latest one-box Karik will be a surprise. More than just a Mimik on steroids, it builds on the strengths of Linn’s entry-level player but goes far further. Like most Linn products it’s not cheap, but what it does to the most maligned silver disc makes it excellent value nevertheless.

Linn Karik
Linn Products Ltd.,
Floors Road, Waterfoot,
Eaglesharn, Glasgow. G76 0EP
Tel: 0141 307 7777

WORLD VERDICT

Supremely musical player with a highly detailed sound. Well engineered and built.

Measured Performance
see p105-113
... Continued from page 47

Electricity's Corporate Communications Manager, informed us that the mains voltage in the UK will not change in the foreseeable future, so no equipment will be affected in any way. DB

THAT OLD DAC MAGIC!

My present system comprises Linn LP12/Akito/K9, Arcam Delta 70/2 CD, Naim Nait 2 amp, Epos ESII speakers on Target stands. Due to my late night listening habits I also regularly use Sennheiser HD560 Ovation headphones linked to the Naim via 'The Can Opener'.

I recently upgraded to the LP12 from a trusty Linn Axis which I purchased new five years ago at the time of purchasing the Arcam. My problem is that the LP12 now sounds more inviting than the LP12 from a trusty Linn Axis which I purchased new five years ago at the time of purchasing the Arcam. My problem is that the LP12 now sounds more inviting than the

Arcam. I have been thinking about upgrading it by adding a DAC. Would this be the most sensible course of action?

I have tried an old Black Box 1 which I wasn’t at all convinced about and I have also revisited the dealer who sold me the Arcam to audition it with the Audio Alchemy DAC-in-the-Box, to be difficult. One of the most musical players around is Quad’s 67, but this is a little past your budget at £800. Maybe if you get a good trade-in deal on your Arcam Delta 70.2 this may be a possibility though. Otherwise I’d suggest you hang on to the Delta 70.2 and use it as a transport, spending your budget on a high quality outboard DAC. There are plenty to choose from with £500, Select Systems’ Dacla, DPA’s Little Bit II and Orelle’s DA-188 being three of the best and definitely worth an audition. DB

Or, dare I say it, listen to the Marantz CD-63SE, but even this is unlikely to outgun your LP12. NK

BETTER BY DESIGN

David Constant’s comments (March letters) on the Cambridge R50 speaker were both encouraging to earlier builders of the design, and also begged some questions.

I built a pair in the late 1970s re-using the KEF units from an earlier Wireless World transmission line design, and added a super tweeter. I am still using them, and it appears from Mr. Constant’s remarks about “never having heard better” that I made a sound decision about which of the then-available home-build designs to construct!

I have often wondered whether more modern speakers sound better. It is very difficult to form any judgement by visiting hi-fi shows since a direct comparison is not available, and one may be possibly influenced by the novelty of hearing something different. The racket from the stands of competing manufacturers, at the bigger shows, also neutralises any hope of a decent listen.

If Mr Constant is right and the R50 is still “the best full range speaker”, then have the better speakers really improved in the last twenty years or are they merely different? Have the KEF drive units used in the R50 been improved significantly?

What does the very informative Hi-Fi World, which has encouraged me to
The R50s are a very good full range loudspeaker using top quality drivers, but to make a judgement on the way loudspeakers have advanced you have to get things into perspective. Doing a rough calculation I reckon that if they were in current manufacture as a commercial loudspeaker they would cost well over £5000. If you compare them to a modern, well designed £5000+ loudspeaker of today, I think you would quickly find that loudspeaker technology has improved.

This is the same across the whole field of audio. Well designed products, especially those that were class leaders of their period, tend to last decades, continuing to offer a top class performance. Look at the Quad electrostatic, Leak Troughline, Garrard 401, etc. The Quads are now around £3000, to re-manufacture a Leak Troughline or Garrard would cost a similar amount.

The R50s have another advantage in that they were kits. If you spent around £1000 on a modern, well designed kit loudspeaker they would give the R50s a good fight. So the R50s are a top class loudspeaker, I’m sure they can be bettered, if at a cost.

Ironically, this loudspeaker design propelled me into the editorial chair of Hi-Fi Answers back in Neanderthal times (well, 1972). It was Chris Rogers’ version of the Cambridge R50 in fact, that we published. It was monumentally popular, which was the problem, ‘cos there were errors and omissions in the complex plans we published, generating torrents of ‘phone calls. Being a bit handy at such things I was told to sort out the mess, my poor predecessor being sent to a Caravan magazine, the equivalent of Siberia. Anyway, the R50 had superbly deep bass, a clear midrange and extended treble, giving a very “wideband” sound that is impressive. It’s this that smaller ‘speakers, even modern ones, cannot match. However, the best of today’s floorstanders do give a smoother and more cohesive sound, with better imaging and higher sensitivity. And in kits, our KLS-3 is a superior modern equivalent in my view. NK

BASS, HOW LOW CAN YOU GO? Help! I have just inherited a large collection of classical LPs. Up to now I have listened to folk music and the spoken word, for which my system has been pretty fair. But now I realise there are some fundamental flaws, such as the lack of real bass, and the record player could do with some improvement.

I have a Naim 32.5, 160 and Flat-Cap and a pair of Linn Tukan speakers connected by Naim cable. Front ends are Linn Axis/Basik Plus and K9 and Arcam Delta 80, both connected via Chord interconnects. Speakers and record player are on stands in a room 14ft by 12ft by 9ft high.

Before sorting out the record player I would like to address the lack of bass. Two options come to mind.

[1] add a REL Strata subwoofer, fed from the second preamp out on the Flat Cap


Would either work, or do you have any other suggestions?

When I come to upgrade the front-end, would the Axis take a Naim ARO, or is the Akito arm the limit. I aim to buy a first class front end, to do justice to the records, but I will have to buy it in stages, each of £500 or less for domestic reasons.

Dave Waters
Northampton.

It seems to me that your interest in subwoofers is like fiddling while Rome burns. Your amplification and ‘speakers are too good for your source components. Although an excellent package, the Axis/LVX+/K9 isn’t up to the job, while the Arcam is a good machine, don’t expect decent bass from anything less than the best CD players.

Consider trading in the Axis for the latest Cirkus LP12 Basik with Akito, and retaining the K9 until you can afford to replace it. This will bring a far fuller sound, with deeper firmer bass. With your next £300, upgrade the LP12 to Valhalla specification, and swap the K9 for a Goldring 1042 which is smoother with fuller bass. Ensure your speaker cables are the latest NAC5 versions, and buy a Base platform for your amplification, as Naim recommend. The Tukans will then have a far stronger front end and should really sing. If this fails, you’ll have no alternative but to get a REL Strata! DP

I can see what David is heading for, the LP12 with
a better arm and cartridge will resolve a lot more bass, both in terms of level and detail. But the Tukans are only little boxes and are already missing a lot of the low bass your Axis will be producing. The REL Strata is a superb device. It has powerful, taut bass that is fast and articulate. It can be tuned in to match well with just about any loudspeaker, and although this can take many hours of fine tuning the end result is well worth it in my view.

Once the REL is installed, then concentrate on your front end. An LP12 with your existing arm and cartridge would be the best first move. DB

Or, just to show you how confusing hi-fi can be, add a Goldring 1022 or even 1042 to your current LVX+ arm. This will give you a completely different balance, one that is fuller, with strong and supple bass. If this isn’t enough and you want to go LOW big-time then, as Dominic (DB) says, you are wasting your time with small-cone loudspeakers like Tukans and could well consider the excellent REL Strata to augment them.

My route lets you in gently in money terms and, if the Goldring cartridge doesn’t give you all you want, it’s still a valuable front-end upgrade which, as David (DP) says, you need. NK

VALVE FEEDBACK PLEASE

My system comprises Systemdek IX/Moth/Sumiko Blue Point, Meridian 200/203, Akai GX4000DB Reel to Reel, Audio Research SP8 pre-amp and KEF 104/2 speakers hooked up with Cable Talk wire. The power amplification is a Mission Cyrus II/PSX.

The system gives a detailed, warm and musical sound but the upgrading itch has returned and I need your advice. Whilst the Cyrus has never sounded better, the obvious thing to do is change to a different (valve) amp. What would suit this combo (new or second-hand).

Also, what would be a suitable replacement for the record player? I like the sound my current deck gives and want to improve on this up to a budget of around £800-1000. I play all kinds of music (but rarely Orchestral) although my wife prefers jazz combos.

Finally, do I need to worry about de-magnetising the heads on my Akai? So far it has only had around 48 hours use in its lifetime (rescued from my brothers attic after 10 years neglect) How will I know if it needs it and where can I purchase one or can I build one? M. L. Pointon Edware, Middlesex.

P.S. In a recent supplement there was an article giving guidance on interconnect cable construction and mentioning Maplin silver cable. The only silver one I can find in their catalogue is for loudspeaker hook-up. Before I get the soldering iron warmed up, is this really suitable for interconnects? Also, no mention was made of lengths for interconnects. Nearly all commercial cable is sold in 1 metre lengths which I think is too long for tidiness. I use a Target equipment stand for my bits and the back looks awful - too much wire and very difficult to keep neat. Would making up cables to 1/4 metre affect the performance?

The KEF 104/2s are sensitive at 92dB and were the first KEFs to use conjugate loading, so they have a smooth impedance curve too; both are good news for valve amplifiers. They are a 4Ω loudspeaker though, so it is important for optimum load matching to make sure that whatever valve amplifier you choose has a 4Ω output tap. You can often get away with using a load higher than specified (i.e. 10Ω speaker on 8Ω output), but not lower than specified.

Because the KEFs are sensitive, any valve amplifier capable of producing a healthy 20watts or more should be up to the job. Try auditioning the Omak Jewel One power amplifier, which is imported from Russia. This has a big, sweet sound with terrific bass; for more detail see the review on p34 of this issue. Also affordable is Audio Innovations’ Series 1000. This uses the sweet sounding EL34s and produces 50watts, which is more than enough for your KEFs. Both will work well with your SP8.

If you like the clean and neutral balance of your Systemdek the obvious upgrade would be to the Pink Triangle Anniversary. This takes things a whole step further, with fantastic detail and pin-sharp imaging. It is a little over your budget at £1200, but your existing arm and cartridge would suit it well, and I doubt if you’d need to upgrade again for many years.

If this is a little far to stretch, Pro-ject’s 6.1SA, which comes complete with the excellent Sumiko arm and Ortofon’s MC30 Supreme (one of the best MCs money can buy) for £999, is super value. Another deck well worth an audition is Townshend’s Rock III. This has quite a different presentation to the Systemdek or Pink Triangle, with superb timing, dynamics and super taut bass. Again this will work well with your existing arm and cartridge.

If your Akai GX4000DB open reel tape recorder has only had 48 hours use it should be fine. However, as it is quite old a clean up and service may be worthwhile. Contact Herts Hi-Fi who specialise in this kind of thing on Tel: 01923 893711.

The Maplin silver interconnect is a couple of pages on from the silver ‘speaker cable in their catalogue, order code: XS56L. There is no problem shortening the interconnects; if anything they will sound better. DB

Omak’s Jewel One valve power amplifier has a big, powerful sound, and is reasonably priced too at £899.
Marking products direct can give a manufacturer an edge over the competition, with no dealer mark ups and no problems with customers unable to find a local dealer. Also, the fact that customers can try them out in their own systems must have its appeal. RA Labs is one such company, offering a "30 day no hassle" return policy.

The Mini References tested here retail for just £99 a pair. What you get is a two-way infinite baffle speaker with a co-polymer tweeter and a 6" doped paper woofer. I positioned them on 22" stands 7" from the rear wall.

First impressions were of a clear, open sound with good depth and timing. Neil Young's 'Sleep with Angels' showed the fine live balance and naturalness of this recording. They sounded much bigger than they should, given their modest dimensions. Larry Carlton's 'Discovery' had great bass speed, with instruments located in their own space, not spliced together or cramping each other. The undamped cabinet seemed to help upper bass warmth, adding excitement and spring to the sound. The midrange, with Larry Carlton's sometimes oddly tuned guitar, sounded quite natural, but with the upper mid sound squashed and narrow, and treble bright.

Record surface noise was also more evident than usual. Ronny Jordan's 'The Quiet Revolution' again showed superior bass, but more importantly it didn't turn into a muddle due to the Mini References' ability to keep things in place. The vocals had good projection, but again a degree of compression reared its ugly head. Sibilance was also somewhat exaggerated.

Nanci Griffith's 'Late Night Grand Hotel' gave more of a clue to this. Vocals had an airiness, the marginally false echo not overdone, but there was still a degree of shrillness to her voice. Percussion seemed more divorced from the rest of the mix with the drums pushed forward, eager to be heard.

This spotlighting of percussion did not appear on the next record, John Abercrombie's 'Getting There' - a wonderful quartet having a good jam. Here the Mini References got into their stride. Peter Erskine's drumming was brilliant, he was really hitting hard! The thwack of stick on cymbals gelled to John Abercrombie's bass with no fuzz around the notes. Keeping with the bass, it was interesting to hear the acoustic bass of Scott La Faro in Bill Evans' 'Waltz for Debbie' which showed excellent interplay between La Faro and Evans.

I turned to classical music next - some speakers sound impressive with rock, but give them a full orchestra and they fall apart. With Rachmaninov's Piano Concerto No.2 (Ashkenazy & Previn) it was intriguing to hear the piano, a difficult instrument to reproduce. The Mini References gave fine scale detail and the piano was good low down, but the upper keys did not sound quite right, with some lightening of tone. Borodin's 'Prince Igor' (Loris Tjeknavorian) again showed the clarity and openness of these 'speakers. The lightness of the violins and rasp of trumpets appeared somewhat hard, but really convincing.

The Mini References did so many things well that it is easy to overlook their little faux pas, especially at the price. Partnered with a smooth sounding system they will produce a clear and open sound, bringing music to life.

RA Labs Mini Reference £99
RDL Acoustics, 20 Cleveland Way, Shelly, Huddersfield. HA8 8NQ
Tel: 01484 603333

WORLD VERDICT

Good value and entertaining sound, but a little too bright to be balanced. Reasonable engineering.

Measured Performance see p105-113
Douglas Floyd-Douglass finds the Consequence pre-power amplifier combination not up to Thorens' usual standards.

The most striking thing about Thorens' new £1050 Consequence TTP/TTA2000 pre-power combination is its gold lacquered ignition switch, complete with matching key and spare. Perhaps this baby packs horses under its bonnet! With Thorens enviable reputation for producing some of the finest turntables around, it certainly seemed that way.

Characteristic of German engineering, the individual units are solidly constructed and well finished. A sturdy steel chassis surrounds the internal components and the fascia is made from dark perspex. The preamp has two large, gold rotary knobs, for volume and source selection (four line inputs and MM/MC phono).

When suitably warmed through, the Thorens certainly forces you to prick up your ears. Pleasant to listen to at low levels, its exaggerated presence makes vocals crisp and well projected. However, soft acoustic instruments like violins and string sections suffer harshness which ultimately characterises the sound of this combination. Partnered with a Marantz CD16, my initial impression was of striking clarity. Jethro Tull's 'Warm Sporran' is a smooth recording, but compared to our reference Audiolab 8000Q/M combination, mandolins, cymbals and snare were far harder on the Thorens. Is this a smart marketing technique intended to grab the listener on first acquaintance in the demo room? Maybe, but I soon found myself needing a walk to clear my head of what was genuine listening fatigue.

Dvorak's New World symphony sounded warm throughout the adagio, with the flute breathy and open. The sound stage was wide with good definition between first and second violins. Brass however sounded synthetic and over-recorded. The depth of the trombone in the allegro was especially good, with notable preservation of the hall's natural reverberation. Unaccompanied strings were acceptable, but this amplifier lacks the control and dynamics necessary in full orchestral pieces, often reaching audible distortion, especially in mid-high frequencies. This was most notable on piano, using pieces by Jools Holland and Chopin as examples. The TTP/TTA2000 seemed schizophrenic in the way bass was so restrained and the higher frequencies so extrovert.

Harry Connick Junior's voice sounded convincingly upstage on "Heavenly", with four-part backing...
vocals evenly spread behind and around the performer. Baritone and bass backing vocals were extremely well presented, but female altos and trebles lacked smoothness. On ‘Blue Light, Red Light’ the brass attack was so frightening it had me running for cover — I know of subtler PA amplifiers! Trombones sounded unusually bright and unrepresentative of their natural frequency range, lacking their customary friendly, low rumble. Tenor sax on Dave Brubeck's ‘Take Five’ was rich with real feeling in the sound stage, but ride cymbals had too much attack, masking the central low piano rhythm and bass lines. Double bass could be clearly heard to buzz against the fret board, which for detail freaks is a must!

Switching to the phono stage, the amplifier had shocking noise levels, and a most unpleasant broad-band hum. This seemed to be a fault, as these levels are quite unacceptable, but were still there on a second sample we tested. This aside, Thorens' curiously translated instruction manual says that in designing this amp, they co-operated with scientists of the hearing aid faculty. In effect, this is just a tweaking of the disc replay frequency response to emphasise the presence region, which I did not find to be at all musical. On top of the hum, there's inherent background noise centred around the crucial mid-high frequencies, unfortunately the human ear's most sensitive region. This meant the Thorens emphasised certain instruments while others remained unaffected.

In comparison with an EAR834P, the Thorens' phono stage paled into a disappointing corner, evidently needing further development before reaching an acceptably high league associated with the Thorens name. Cymbals were again harsh and splashy, sounding like they were being overplayed. Vocals were emphasised by the amplifier's unpleasant high frequency behaviour. Rhythm guitar was chunky, but I had to listen hard through the sibilance of the vocals to hear it.

The upside of the Thorens is its energy and life. Its attack came into its own on Eric Clapton's ‘Old Love’ with slapped bass sounding really beefy, as though it had just emanated from a pair of pumping 15" Trace Elliot drivers. The chimes on the bridge came as a pleasant surprise, and were a pleasing intro to the sax which played out well to the right of the sound stage. Bob Marley's ‘Natty Dread’ also sounded great, with The Wailers on backing vocals affording a fine live feel. Marley's vocals were strong and the drum sound tight and consistent. In 'So Jah Seh' bass went down really low, creating a stirring rhythm and a compulsion to move.

Regrettably though, this didn't compensate for the liberties the Thorens combination was taking with the original music. If recording engineers want ear-splitting sibilance for extra attack and speed, they can add it in the studio, and don't need hi-fi to do it for them, especially at this price. Although the Thorens could sound impressive at times, I got the feeling this was more by happenstance than design. However much you may like the sleek lines, sadly this Thorens hasn't got much under the bonnet to recommend it.

**WORLD VERDICT**

Poor sound quality and engineering let this Thorens pre/power amplifier down. Pricey too.

**Measured Performance**

See p105-113
The first week of July brings something special for all hi-fi enthusiasts, the August issue of Hi-Fi World! Packed with all the latest equipment thoroughly reviewed by our experts, your letters and queries, new product news, a fabulous competition, a free DIY Supplement, music reviews, a classified ad. section with stacks of bargain equipment, need we go on? To ensure you don't miss out, hand in the coupon to your newsagent.

NAD 514
NAD’s answer to Marantz’s CD63SE, the £339.95 514 uses an 18bit MASH convertor chip and a custom designed 5-pole analogue filter with DC coupled output stage. Could Marantz be about to hand over their lead?

KAR AMBER
Using anodised magnesium cones, which are lighter and stiffer than the aluminium normally used, Keswick Audio Research’s Ambers are certainly different. We take a close listen to see what this new technology has to offer.

REL STORM
A beefed up Strata, the Storm uses a bigger and heavier cabinet plus a more powerful amplifier for even stronger room-shaking lows.

UNISON SIMPLY TWO
This beautifully built single-ended EL34 powered valve amplifier from Italy has the style and grace you’d expect. We take a close listen.

LP12 REVISITED
Linn’s vinyl tour de force gets a long awaited reassessment complete with an introduction from its creator, Ivor Tiefenbrun!

DIY SUPPLEMENT No. 16
As if this wasn’t enough, the August issue also carries our 16th free DIY Supplement. We hope to bring you a special High Definition Aerogel driver loudspeaker that re-writes the rules, a review on the new Liberty Instruments (the people who designed IMP) Audiosuite measurement system for the PC, book reviews, reader’s DIY letters and more.

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.
W e’ve improved the magazine again! From this issue on you’ll find World Verdicts at the end of each review. This rating system is designed to tell you in no uncertain terms how we regard the product tested.

The top score is four Hi-Fi World globes, awarded to outstanding products we’d be genuinely happy to live with. The operative word here is we. World Verdicts are a clear expression of our own view as experts rather than some notionally impartial conclusion, since such things are a sham. Four globe products are few and far between, so unlike other mags we won’t be handing out our top accolade like it’s going out of fashion.

Three globes are awarded to good products which wouldn’t necessarily find their way into our homes. This includes subjectively enjoyable designs with significant weaknesses in some areas. Prime examples are bass heavy loudspeakers like TDL’s RTL-1 and Heybrook’s Heystak, deliberately engineered to appeal to listeners with tastes quite different to ours. We’ll list the problems with three globe products so you can make up your own mind from our reviews and a dealer dem.

Two globes are awarded to adequate products that technically measure well but sound less than convincing. Many mass-market tuners and amplifiers fall into this category. Objectively they may be strong, with effective circuit design, exemplary measured performance, fine build, styling, back up, price and what have you. But switch on the product and your interest duly switches off. The reason can often be found in poor component quality, excessive use of inappropriate integrated circuits, too much feedback hiding a poor basic performance.

Products like this have a horrible knack of squeezing the life and enjoyment out of music. Two globe products may also be technically shaky, such as loudspeakers with strong treble peaks, or amplifiers and CD players with strong distortion.

Finally, we reach one globe status. This is a poor product. It will measure badly revealing fundamental design faults, and sound objectionable under audition. Surprisingly, Thoren’s collect the award in this issue, with a bizarre solid-state amplifier that was nothing other than an engineering shambles, one of the worst products I’ve encountered in years.

An interesting point to bear in mind is that hearing something sound radically different, subjectively-only reviewers are prone to assume it is better. We’re well aware of this problem, what I call the ‘Decca London phenomenon’! Don’t be surprised that at Hi-Fi World we may appear to take a tough minded view compared to others. As engineers, bad engineering gets a rough ride, unless accompanied by some pretty convincing justifications.

Although World Verdicts are a useful way of underlining our opinions, as always we’d urge you to use your local real bi-fi dealer for a dem, since your own tastes and expectations are obviously important and may differ significantly from our own.

While other magazines have giant colour advertisements for midisystems, we’ve just run one of the first ever showing valves, by The Parts Connection (p24/25)! This is something of a first, a welcome sign real bi-fi is fighting back. There’s now so much demand for valve-based products and specialist audiophile parts associated with DIY that everyone is being forced to sit up and take notice. The Parts Connection advertisement is symbolic of a new, broader approach to audio, able to cater for the interests of enthusiasts, instead of sideling them as a penny-pinching, time wasting nuisance.

The Parts Connection are Canadian, and close by, 300B production is being restarted in America, while the rest of world is moving in the same direction. Only a year or so ago a spokesman for Kenrad (Kentucky Radio) said valve production would never return. Now he’s eating his words. That’s not all though. In a delightful piece of post Cold War irony, he’s also in commercial competition with the Russians who are understandably delighted that everyone wants their valves. Sovtek are about to produce a 300B clone and Svetlana a near-equivalent, adding to the 300Bs streaming out of China.

I’ve seen one more advertisement - really wacky this one - that I hope will someday appear in Hi-Fi World. It’s a double-page, black-and-white ad. for an Alps volume control, perched on a Grecian pillar no less! I spotted this in Japan’s MJ Magazine. I suppose it’s the hi-fi version of a train spotter’s tank loco, but so what, it’s more exciting than a midi-system!
RINGMAT
FOR RECORD LOVERS
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"A carefully researched and innovative product which genuinely transforms analogue replay at nominal cost. The string bass was more dynamic, the separation cleaner and, more importantly, the phrasing of the music was more fluid - you heard the vocal line arch and fall." Christopher Breunig (Hi-Fi News, September '93)

"RINGMAT gave a sharper, cleaner, more solid sound, with better fine detail and clarity... RINGMAT 330 must be cost-effective, upgrades you can make to any turntable." Jimmy Hughes (Audiophile, October '93)

"All of a sudden, much more of the music, and the space in which it was performed, was evident. I'm sure that the legions of Linn and Rega owners out there who still play their LPs will want to make the modest investment required for a major improvement in vinyl play." Andrew Marshall (Audio Ideas Guide, Winter 1993/94)

"All theory aside, the RINGMAT really works." Robert Deutsch (Stereophile, Vol.17 No.5 May '94)

"Better than ever is what I have to report about the MkII.... Buy a RINGMAT and turn your AR into a killer table. It almost seems too good to be true." Sam Tellig (Stereophile, Vol.18 No.1 January '95)

"Essentially, RINGMAT helps give LPs the kind of firmness and stability normally only available from master tapes... Given the excellence of the original RINGMAT, I was a bit sceptical about whether or not the MkII would provide a worthwhile improvement - it did!" Jimmy Hughes (Hi-Fi Choice, February '95)

"This product really does have to be heard to be believed. On most turntables the bass seems to instantly reach down an octave lower, with noticeably better control and extension too... What's more, none of these improvements are ones you'd listen hard for and, as yet, I've found no adverse effects." Dominic Todd (Hi-Fi World, January '95)

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SEPTEMBER 1995

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As promised last issue, this month I have described the tone control circuit for the Maximalist Preamplifier, the informal design series which has been unfolding in this column for the past half-year. Rather than design a Baxandall tone-control based around a high gain op-amp or a discrete transistor stage (an option I considered last month) I decided to look elsewhere for inspiration. I found it in a design of a vintage valve studio-equaliser, the Pultec Model EQP-IR. The blue-grey enamel fronted Pultec unit was first manufactured by Pulse Techniques Inc. of Englewood, New Jersey some forty years ago and has spawned many derivatives, amongst which are some of the creme-de-la-creme studio equalisers of today.

The Pultec’s power lies in its ability to independently select the frequency range over which boost and cut may be applied, a degree of subtlety well beyond that of a standard tone-control circuit. Actually the EQP-IR in its original form is so complicated it offers too much of a good thing for domestic use. In the design for the preamplifier, I believe I have succeeded in sacrificing unnecessary complexity whilst preserving all-important versatility.

The diagram illustrates how the Pultec-inspired, Maximalist Preamplifier tone-control achieves all its equalisation in one entirely passive circuit of considerable complexity. The important detail to notice is that one may, for instance, cut bass frequencies below 100Hz and - at the same time - boost sub 30Hz frequencies. Using combination of controls such as this, it’s possible to clean-up a “boomy” recording (with a surfeit of energy in the 100 to 200Hz region) without emasculating the bass frequencies - a combination also extremely useful for correcting for room resonance effects from which we all suffer. The same advantages can be reaped at the top end where a conjunction of boost in the 5kHz region and treble-cut above 10kHz can help restore sparkle to cassette tapes recorded with incorrect azimuth without introducing too much tape noise in the process.

The only disadvantage of Pultec’s passive approach is that the circuit introduces about 24dB of static attenuation at all frequencies when adjusted for a flat response. In the original circuit this loss was compensated by the introduction of a push-pull, valve amplifier constructed from a 12RX7, a 12RU7 and a couple of transformers. Beautiful, but a bit clumsy for the Maximalist Preamplifier - especially for stereo - where I have plumbed for an op-amp circuit instead.

The design enjoys a couple of especially favourable characteristics; the first is that it cannot suffer from overloading problems or variable distortion characteristics due to reduction in feedback fraction - as is the case with a circuit like the Baxandall tone-control.

Naturally, the other side of the coin is that the circuit does introduce some noise - however the impedances are very low so this is of no practical significance. The second advantage is that it does not require a bypass switch because when the controls are set to “flat”, the reactive components are effectively out of circuit. The only possible source of distortion is that created by the following amplifier and that’s very small indeed. Just one small technical detail, note that R2 controls the treble-boost characteristic Q. Set at 2K, the curve is pretty gentle. If you wish, you can increase or decrease the selectivity of the boost control by altering this value.

Last month I included, for the first time, my Compuserve ID and my email address at the end of this column, inviting comments on the Maximalist Preamplifier and other hi-fi related topics. This practice has been common in the computer magazines for years. But computers affect all our lives, not just people who are involved with them for a living, hence my decision to get “wired”. Unfortunately, the realities of publishing mean this column has to be written before last month’s has hit the streets so I am as yet unable to report on any feedback. This month I have decided to go one better and provide more information on the Maximalist Preamplifier over the Internet. If you feel like a bit of ‘surfing’ remember to stop by. You will find all articles so far published about the Maximalist Preamplifier, as well as a host of other information by visiting my Electric Perception home page at URL, http://www.demon.co.uk/epercept/. You can leave messages and comments for me there or, alternatively, at Compuserve ID 100601, 1614 or via email 100601.1614@compuserve.com.
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Epos are well known for their small, exclusive range of high quality audiophile loudspeakers. They have recently launched a new loudspeaker, the floorstanding ES25 which we reviewed in the May '95 issue of HFW, bringing their range to three.

Because you appreciate good hi-fi, we thought it'd be a great idea to give away one pair of each in the range, all offering superb sound.

Epos started in loudspeakers with the ES14 in 1986. Not happy with off-the-shelf drivers, they designed and built a special bass/mid driver that was carefully controlled so that no crossover was necessary. This approach - better driver, simpler crossover - laid down the Epos philosophy, one they follow today.
The ES 14 loudspeaker was a great success. With no crossover on the bass driver and just a simple series capacitor on the 25mm metal dome tweeter, it gave a level of detail and clarity unrivalled at the price. The ES 14 was followed by the more compact and affordable ES 11, which quickly established itself as a class leader. The ES 11 followed the same philosophy, its custom made 6inch bass/mid driver running crossover free.

The latest addition to the Epos range are the elegant ES25s which use a dedicated midrange driver for super clarity and detail. A powerful 8inch bass unit gives good bass attack and dynamics, and the smooth metal dome tweeter brings crisp highs. The ES25s are the first prize in this super competition, with the ES14s for 2nd and the ES11s for 3rd.

All three of these loudspeakers are among the best in their field, so it's a competition not to be missed. All you have to do to enter is answer the questions and complete the 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 3rd JULY 1995 to:

EPOS LOUDSPEAKERS
COMPETITION
Hi-Fi World Magazine,
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COMPETITION ENTRY QUESTIONS

1) What was Epos' first loudspeaker?
   A. ES11    B. ES14
   C. ES22    D. ES25

2) When was the ES14 first launched?
   A. 1962    B. 1974
   C. 1986    D. 1995

3) What size is the custom bass/mid driver in the Epos ES11?
   A. 3inches   B. 4inches
   C. 5inches   D. 6inches

4) What type of loudspeakers are the Epos ES25s?
   A. 2-way standmounter    B. 2-way floorstander
   C. 3-way standmounter    D. 3-way floorstander

TIE BREAKER (obligatory)

Epos are looking for a simple slogan to promote their loudspeakers and the philosophy behind them. Write a suitable slogan, in less than 10 words, which you think best sums up their image.

COMPETITION RULES AND CONDITIONS OF ENTRY

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

[2] In the event of more than one entrant submitting all correct answers, the winner will be picked from the tie-breaker by the editor. Will will endeavour to publish the results in the August 1995 issue. Purchase of the magazine is not a precondition to entry.

[3] No correspondence about this competition will be entered into and the editor's decision is final.

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Don't forget to include your name, address and a telephone number so that we can contact the winners promptly.

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Unfortunately, all issues prior to October 1993 are completely sold out, but subsequent issues, as listed below are available for £3.00 including postage and packing in the UK. Overseas please add £1.00 per copy (surface mail).
There's been some interesting debate going on in our letter pages over the last few months regarding the Hi-Fi Answers R50 transmission line loudspeaker. A constructional feature describing how to build them was written by Chris Rogers and appeared way back in 1973, yet they still seem popular today. Many letter writers have suggested that loudspeakers have not made any significant advance since. I have been working on a DIY loudspeaker that challenges this, more of which later.

The R50s were essentially a three-way design with a super-tweeter that filled in above 16kHz. All the drivers were advanced for their time. There was a powerful KEF B139 bass unit, the legendary B110 Bextrene midrange driver (also used in the LS3/5a), a KEF T27 tweeter and an STC super tweeter. For those unfamiliar with the R50s, they were very similar to the Cambridge R50s and aren't too distant in driver complement from a Linn Isobarik with a super tweeter.

Like any well designed three-way loudspeaker, the R50s displayed deep, powerful bass, a clear midrange with super projection and an open treble quality. With all of this going for them, it's not surprising they stand up to modern competition. As a testament to the quality of their drivers, these 'speakers are still available today for £528 from TEAC P500 transport feeds a DPA 1024 CD convertor (featured in our July '94 issue). The amplifiers is also from DPA, the ultra-rare 1000S pre/power. The preamplifier actually uses hand assembled, silver air-gap capacitors, the ultimate in transparency and cost! They were so difficult to make that only a handful of these amplifiers exist, one set being cherished by reviewer Paul Miller and used as a reference.

With a system of this calibre, what loudspeakers do you use? Mike called us to ask about the new Audax Aerogel drivers, which he thought might be just the thing. Having used Quad electrostatics, he was after a high level of clarity, imaging and soundstaging. With such a system, I decided he'd make a fine guinea pig for a design approach I had in mind that would likely achieve this. I had wanted to try my latest idea, to use a top quality midrange and treble unit on an open baffle, for months, but hadn't had time to do so.

To cut a long story short, we arrived at a three-way design using the new Audax HD-P3 piezo electric, gold-dome tweeter, fantastically expensive at £225 each. All the same, Mike, Rob Watts of DPA and myself, all agree after hearing them that they are worth it. The midrange driver I selected was the new HM100Z0 Aerogel unit, used on an open baffle with felt and long hair wool curtains to absorb rear radiation and give pin sharp imaging. Bass was provided by an 8" Aerogel unit in a large, reflex-loaded cabinet, which Mike glass lined for extra rigidity.

The results from this loudspeaker were far better than any of us could have imagined. Its drivers are costly and a lot of work is involved, but the result sets new standards in many areas. It combines the best qualities of an electrostatic, notably terrific sound stage width and depth, with precise imaging, high sensitivity, fantastic dynamics and superb detail.

We hope to publish a design suitable for home constructors in the next supplement and will endeavour to have a pair on demonstration at the Cumberland Hotel for the London Sound & Vision Hi-Fi Show taking place on 21-24 September 1995 so you can hear what modern technology has to offer. I'm sure you'll like them.

Dominic Baker
Golden Dragon

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Hard as it is to believe, it’s now three years since Digital Compact Cassette and Mini Disc were launched on an unsuspecting British public. Yet unlike CD, which was making notable inroads into both hi-fi and music shops in its third year, both DCC and MD appear to have made very little impression on the industry at all.

You only need to visit any large music store, and you’ll be hard pushed to find evidence of either format, and if the software does exist, it’s usually tucked away in the corner of the shop on a single, dusty carousel. Likewise, in hi-fi shops the hardware is given little prominence, except when being sold off cheap!

So why have both formats failed so ignominiously over the past three years, when it was thought at least one would have replaced Compact Cassette by the turn of the century?

It’s certainly not through want of trying, or even a failing with the products themselves. Both Philips and Sony Philips. Both formats have also received encouraging reviews - although admittedly DCC more than MD - in the hi-fi press and even the press at large.

The obvious reason for the formats’ conspicuous lack of success is the paucity of software. Despite both Sony and Philips having large stakes in the recording industry, neither have managed to offer sufficient variety across a wide enough network of stores.

Another has been the confusion and scepticism shown by other hi-fi manufacturers. With the exception of Technics who backed DCC from the start, the only other manufacturers to develop products thus far have been affiliated with either Sony or Philips. We were also promised in-car machines, and although DCC and MD weren’t meant to compete, that’s how they were perceived by many - as a replacement for CD.

To an extent Sony and Philips are victims of CD’s success (quite ironic when you consider they are the same two companies which pioneered that particular format). With software widely available at a variety of prices, the increasing fitment of CD players in cars, and an army of portable machines costing no more than a decent Walkman, there seemed little need for a new recording format.

Had the new recording format been a conventional recordable CD at a reasonable price then things may well have turned out differently. As it stands however, I see Compact Cassette remaining the main recording format at the end of the century.

The irony is that whilst different manufacturers have been battling over new formats, many enthusiasts have turned their backs on the supposed technology race, and instead focused upon classic hi-fi. By classic I mean valve amplifiers, vinyl and a return to DIY. This has been well documented in these pages before and I’m not about to go into it again, but consider this as a final twist of fate. The recording format that found itself ousted by the humble Compact Cassette, the reel to reel, is now facing its strongest revival in years.

It’s true that top decks such as Revox B77/A77s and certain TEACs have always been sought after. But now it seems even the most humble of open reel tape recorders are fetching upwards of $100. One of the most sought after is the Philips Black Tulip, a superbly built three-head machine that never really took off in its day. History, it seems, has a habit of repeating itself.

"The greatest failing of DCC and Mini Disc has to be that the public at large were not ready or simply didn’t want them."

The greatest failing of DCC and Mini Disc has to be that the public at large were not ready or simply didn’t want them.

have adapted to market needs by offering both portable and full size machines. Price has never really been a handicap either. Compared with the first generation CD players, DCC and MD machines were not that expensive. Three years down the line it’s now possible to pick up either format for the price of a mid-range cassette deck, or less in the case of the manufacturers. With the exception of Technics who backed DCC from the start, the only other manufacturers to develop products thus far have been affiliated with either Sony or Philips. We were also promised in-car machines, and although these have arrived they’ve yet to be fitted as standard as had been suggested. Rover and Vauxhall have yet to offer DCC as standard, and MD remains firmly on the options list for Sony-equipped Audios. Further disarray followed in the in-car entertainment market as the highly respected Alpine backed Philips at first, and then later decided to produce a Mini Disc machine.

It could be argued that the depressed state of Western markets at the time of the formats’ launch damped enthusiasm. However, the greatest failing of DCC and Mini Disc has to be that the public at large were not ready or simply didn’t want them.

Granted, the matter of want has never got in the way of new formats in the past. But in this case the launch of the new formats coincided with peak sales of Compact Disc machines, and although DCC and MD weren’t meant to compete, that’s how they were perceived by many - as a replacement for CD.

To an extent Sony and Philips are victims of CD’s success (quite ironic when you consider they are the same two companies which pioneered that particular format). With software widely available at a variety of prices, the increasing fitment of CD players in cars, and an army of portable machines costing no more than a decent Walkman, there seemed little need for a new recording format.
It all started when I went to a friend's house for dinner. As the wine began to flow, a guest asked me what I did for a living. Mentioning hi-fi, she chimed: "I've just bought a hi-fi". Expecting to hear an interesting tale of endeavour in a strongly 'male interest' topic, she proudly announced a name and model number. The alarm bells rang. Hi-fis, after all, don't have model numbers, because they don't come in packages of one. You've guessed it - the object of her enthusiasm was a mini-system. "Are you familiar with it?", she asked. "Not really, I'm afraid", I had to reply. I was faced with a dilemma: should I lecture her about what "a hi-fi" constitutes, or just feign interest and get onto the subject of the weather as soon as possible?

Naturally, being British, I went for the latter. I wasn't about to turn into a crusading pedagogue and spoil the evening with my annoyance that what she'd called hi-fi in fact cost £150 at a local High Street cooker/fridge/hairdryer emporium. So how could I spoil the evening with my crusading pedagogue and possible?

Expecting to hear an interesting tale of a hi-fi magazine I bought was Hi-Fi Sound. Opening its pages revealed a bewildering array of shiny silver amplifiers and impressive looking turntables. I was struck by SME's latest precision pick-up arm, designed to track Shure cartridges down to a millionth of a gram. Serious 'speakers of the time had sculpted foam grilles and more drivers than a fleet of double decker buses.

It all seemed a bit of a black art back then, with amplifiers that hummed like bees unless you 'matched' them properly. Which was better, DIN inputs or phono? What about running eight pairs of speakers from a champagne gold Marantz receiver? It seemed to me that these magazines performed a vital service to the nation. Where would the British music business be if rock fans were unable to play 'Dark Side of The Moon in glorious quadraphonic sound?"

"You forgot about running eight pairs of speakers from a champagne gold Marantz receiver? It seemed to me that these magazines performed a vital service to the nation. Where would the British music business be if rock fans were unable to play 'Dark Side of The Moon in glorious quadraphonic sound?"

"The British public's perception of hi-fi is a £150 black box with plastic speakers that seventies music fans wouldn't consign to the boot of their Hillman Imp."
What is this, the day of the living dead or what? Someone once said dying was the best career move an artist could ever make. In recent years the likes of Tim Buckley, Nick Drake, Jackie Wilson and a good score more (did someone mention Jim Morrison?) have sold more records posthumously than ever in their tragically brief lives. None more so than James Marshall Hendrix, the man who put Seattle on the map before the (equally defunct) Kurt Cobain was even an itch in his parents' pants.

Despite an extraordinarily brief career Hendrix, though releasing a mere handful of records while still with us, his posthumous releases could fill a small apartment building. These have ranged from ancient recordings where he was a barely audible, peripheral hired hand, to full-blown LP’s proper, made by adding extra musicians to demos, which proved veritable goldmines for whoever could get their hands on them.

A friend and I of similar vintage once agreed there are precious few good things about getting older. In no particular order, you can drink more beer, love more women and if very lucky, you might just have caught Jimi Hendrix in the flesh. It’s impossible to explain the thrill of being stood behind Jimi’s amp the first time he played London’s Marquee Club way back in ’66. True, The Stones introduced us to r’n’b, the Kinks invented heavy metal, and all manner of rebellion was in the air. But Hendrix was a veritable Gulliver who made contemporary guitar heroes like Beck, Page, Clapton, even the demonic Pete Townsend look and sound, as all were fast to admit, mere Lilliputians by comparison.

For a boring old bugger like me even most of the discs issued while he was still alive and in total control rarely came anywhere close to the pure, sensual joy of a seeing him live. Every woman I took wanted to share his bed. But above all it was his soaring power and imagination that gave the late sixties its most distinct and lasting signature tune. One simply could not believe a single Strat could make sounds like that until you dug this particular cat. Flashes of that brilliance still shine through a largely familiar selection, albeit in differing arrangements. It’s patently obvious for instance that ‘The New Rising Sun’, planned title cut of the album Jimi was working on when he died, was by no means finished, and truth be told, some instrumentation could barely have been possible thirty years back. Most of the rest is familiar stuff: a stomping ‘Freedom’, a somewhat wobbly ‘Angel’ which barely earns its
wings, and so on. Still despite more than a few remodels of haunting riffs as old as the blues itself, this remains one of the more interesting of latter-day Hendrix collections.

This is the sound of Robert Johnson's only real natural-born inheritor — not always at his best perhaps but more than often still miles above the rest. You'll believe a man and his guitar can fly.

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A Secret Life
(ISLAND CID038)

- Morose, maladroit moribund — forgive if you can dear reader, the tendency towards pretension. But when all's said and done there's definitely something regal about this particular senorita. Now as it happens, I shared a beer with Ms Faithful not so long ago (I know, it's a tough job...etc.) and she exudes the same feel of someone walking a tightrope — part aristocrat, part guttersnipe, half virgin, half whore; from the lowest to the loftiest, Marianne rung the very gamut. And sure, she's nothing if not a living cliché - we all know about her mother's blue blood, how she was Jagger's girl when his mere name/image was a totem to a generation, etc.

She's written one great song 'Sister Morphine', and made one ultra-classic long-player in Broken English. This be neither, but it nonetheless remains and either you forget them echoes of Piaf or Brel or Dylan or whoever or read them as homages. Whatever, Marianne remains unique, and A Secret Life is proof positive this is an artist of stature and continuing growth.

PS. Professional Bit — there's a song on here called 'Flaming September' that's really very good — good enough that you can forgive her showing off her literary erudition by starting this disc wiv a bit of yer Dante' Divina Commedia' Alighieri, and rounding it off with a dollop of that equally posey old ponce Will Shakespeare. Such minor cavils aside, this is one diva who hasn't gone divy with the passing of time. Acolytes will not be disappointed even if the rest of the pop world continues to be entranced by mere boys like Blur and Oasis. They might still be able to learn something from a full-grown woman like Marianne Faithful.

TEENAGE FANCLUB
Grand Prix
(CREATION CF.E CD 171)

- Hard as it is to believe, this is record numero five from the Fannies, and don't time just fly? No radical changes to report — and why spit on an audience-friendly, radio-loveable formula anyway? The Teens may or may not win a heap of new followers with this latest offering — it is after all primarily the familiar blend of Byrdsian jingle-jangle guitars and sweetly harmonious vocal stylings. That said Teenage Fanclub remain the finest purveyors of this particular style this side of Big Star at their best and rarest. Recommended tracks: all of 'em. A band at their remarkably continuing best, no mistake, and equally entrancing to die-hard baldies and erudite youngsters alike. A gem. No problrmo, but is the title a bad pun or what?

MERCURY REV
See You On The Other Side
(JUNGLE BBQCD 178)

- They may well open with the cheekiest — obviously deliberate - Velvet Underground steal in pop history, but on this offering at least, the Merc's are a pop band of classic proportions — check out the awesomely catchy 'Sudden Ray Of Hope', the irresistible 'Racing The Tide' or the wry 'Close Encounters of the 3rd Grade' for starters. Sharp, luminous, endlessly intoxicating.

 weezer
(GEFFEN GED 24629)

- Weezer are as fine and imaginative a foursome of geezers as you'd want to share a pint with. Their music's alternately delicate, tough, imaginative, forceful, restrained — you name it, you got it. Aside from a sublime cover of The Beach Boys/Bryan Wilson's 'Buddy Holly' — which actually improves and enlivens the original, there are Weezer's own songs — the witty 'Undone — The Sweater Song', the love-happy 'In The Garage' — to make this a band more than worth lending an earhole to. Neat stuff.
BOB DYLAN
MTV Unplugged
COLUMBIA 478374 2

Like fashion, popular music continually re-upholsters and steals from its own past whilst pretending to progress. It's hard to imagine the climate of the mid-Sixties unless you were actually there. Veteran "folkies", with their bad beards and even worse sweaters, were as much of a hip elite in their day as the mods, hippies and punks of subsequent generations.

Joe Strummer used to wear a Vivienne Westwood shirt juxtaposing the stencilled words "FASHION" and "PASSION". But the point being made was that in pop as in fashion, it's more a question of what happens to be "in" at any particular time rather than who's on the ball creatively. In the long run however, and on the evidence of this latest Dylan release, what really matters is the actual music concerned.

Thus, some three decades later, it's Dylan going acoustic that's a revolutionary act. The irony is that as with recent similar outings by Neil Young, Nirvana and many more, the novelty is hearing the songs without benefit of leccy, as we Brookside fans call it. John Lee Hooker once wrote a song called 'This Is Hip'; so maybe we should be asking the opposite, i.e. Is it 'in' at any particular time rather than who's on the ball creatively. In the long run however, and on the evidence of this latest Dylan release, what really matters is the actual music concerned.

Listen to recent 'proper' Dylan albums and it's the same story - every now and then Bob sounds like he's inhaled a spot too much helium. Still, Dylan has nothing to be ashamed of in pop and darker as the years and his voice progressed. To this listener latterday Dylan seems to have gone the other way entirely; whereas he sounded like a sixty year old man in those early outings, he now sounds like a sixty year old man in his prime.

Jon Clarke

HOLE
Live Through This
GEFFEN GEC24631

Like a growth on the coy underbelly of the music industry, Courtney Love creeps ever closer to pop stardom. Having just appeared on Top Of The Pops with a top 40 single, the wife of the late Kurt Cobain - who tragically killed himself with a single gunshot wound to the head last year - has re-released her band Hole's 1994 Live Through This.

Seeing her perform the single 'Doll Parts' on TOTP was all the more chilling, knowing of her husband's untimely death. And Live Through This probably better explains the sentiments of the Nirvana singer than his own suicide note. It must be lyrically one of the most disturbing and warped albums ever released.

But while it tells of drug abuse, depression and a misspent childhood it is ultimately one of the best hardcore rock albums released since Nirvana's Never Mind of some years before.

Courtney, the ex-stripper and smack addict who once dated Julian Cope while squatting in Liverpool, is very much the inspiration and driving force behind Hole. She recounts tales of her wicked life, in such a venomous vein that the listener is defied not sympathise.

a mixed metaphor or what?).

A brief early flirtation with laze fifties' rock'n'roll aside, the young Zimmerman cut his musical teeth a la Woody Guthrie, Lead-belly et al. assisted simply by acoustic guitar and wheezy harp. Of the twelve cuts here, most are drawn from Dylan's most prolific, commercially successful period - shortly after he picked up that instrument of Satan, the electrical guitar and joined forces with Robbie Robertson and the rest of the inestimably brilliant The Band. The opening 'Tombstone Blues' is arguably even better than the original; certainly no mere run-through of a solid favourite. By comparison 'All Along The Watchtower' was always a great song, but nobody ever did it better than Hendrix, Dylan included.

'Rainy Day Women' (version 197, words unaltered), 'The Times They Are A Changin', 'Desolation Row' and other staples retain both dignity and style, but 'Like A Rolling Stone' in the stripped-down version here, is a bit like watching a postage stamp version of a Cinemascope melodrama without the breadth and passion of the original. As for 'Knocking On Heaven's Door' one can't help but be drawn back to the original 'Pat Garrett & Billy The Kid' soundtrack version or the masterly refurbishment given by Tom Verlaine and peak-period Television, to which Verlaine's anguished voicings added a dimension far beyond Dylan's well-used but admittedly limited thoracic scope.

I'll tell you a funny thing: Lou Reed, easily most brilliant of Dylan's mid-Sixties' offspring, has gone from a mild tenor to something far deeper and darker as the years and his voice progressed. To this listener latterday Dylan seems to have gone the other way entirely; whereas he sounded like a sixty year old man in those early outings, he now sounds more like someone half that age with a few i.p.s. added.

Like a growth on the coy underbelly of the music industry, Courtney Love creeps ever closer to pop stardom.
for this sorry, self-abused rock victim. Songs like 'Violet', 'She Walks On Me' and 'Plump' all talk of desperation, victimisation and teenage angst. But the best moments are the 'Doll Parts' single and 'Miss World', a critical look at beauty contests, with the brilliant line: "I'm Miss World, somebody kill me." As a package, the album whizzes past in forty minutes flat, with such speed and aggression that it almost feels like an EP. Of course, there are too many references to suicide, guns and drugs, and it's very unnerving when a mother and wife, whose husband has shot himself, behaves in such a lewd and aggressive manner. But it is this very behaviour that hammers the album home to where it should be. And it is this that will hopefully carry Courtney to the fame and fortune which she not only deserves, but which might just keep her from joining husband Kurt.

**BOOKER T & THE M.G.'s**

**McLemore Avenue**

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- Along with the Ten Commandments, one of life's most basic tenets is "thou shalt not cover Beatles' songs". Should you ever find yourself in breach of this, you join the inglorious company of Wet Wet Wet and Candy Flip, not forgetting a thousand other also-rans who later confess "the record company told us to". The reason being of course, that however 'original' an interpretation you may think it, it won't be the slightest, slimmest patch on the original.

Such wisdom momentarily escaped Booker T & the M.G.'s back in 1970, when they took Abbey Road in its entirety, scrambled it into three medleys, and substituted the Fibs' plaintive harmonies for lashings of electric organ. McLemore Avenue was the result, and a damn fine album it is too. The cover, showing a long haired Booker T. Jones, Steve Cropper, Donald "Duck" Dunn and Al Jackson makes clear their good intentions. It's a loving, all-American take two.

For more than a decade Booker T & The M.G.'s were the house band for the Stax label, making their name in '62 with 'Green Onions', a subtle, infectious exercise in 'Southern Soul' that became de rigueur for any self-respecting London Hustlers that the James Taylor Quartet would willingly auction their last long-ounce of the action. But it is this very behaviour that hammers the album home to where it should be. And it is this that will hopefully carry Courtney to the fame and fortune which she not only deserves, but which might just keep her from joining husband Kurt.

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- London's burgeoning acid jazz scene is now expanding its remit to a distinctly nineties reading of the plot so far with jazz-punk, and spiralling off into that most unlikely of cul-de-sacs, easy listening. So, put on your best fawn turtleneck and hipsters for a trip to Soho nite-spots like Smashing, where people with threads the envy of Randall and Hopkirk can be found celebrating what's now tagged "exotic easy listening".

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The Sound Gallery team comprise Smashing DJ Martin Green - favourite colour green, Tristram Penna - who'd like to hear strings on every EMI record release, and Patrick "The Quadfather" Whitaker - who owns every quadraphonic disc ever made. Together, their passion for EMI's Abbey Road Studio Two Stereo releases knows no bounds. Get the picture, daddio?
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JOHN ZORN
Masada 2 - Beit
DIW DIW889
Masada 3 - Gimel
DIW DIW890

We looked at part one of Masada a couple of months back. Hot on its heels come parts two and three, and again we’re unquestionably faced with some of the finest acoustic jazz recorded in twenty years or more.

John Zorn has had such a staggeringly diverse, influential, and at times epochal career that no matter how many times we drop in on him, this hack feels compelled to spell at least some of it out. This isn’t historical irrelevance; Masada can of course stand entirely on its own, and ultimately will have to be judged by each newcomer by listening as that nice young George Michael once wanted us to: without prejudice. Nonetheless, Masada’s place in the context of Zorn’s twenty plus years of music making make it that much more remarkable.

By the time all but the most
both the soul and the mechanics of these two musics and showed them for what they are: two different expressions of the same musical will. (This of course is the secret of great art: to reveal something hitherto occult again, there’s a case to be made for Zorn as the most important American artists - of any medium since Andy Warhol.)

More Zorn jazz? Well his hard bop fixations (not to mention - and regrettably it seldom is mentioned - his undoubted brilliance as a virtuoso hard bop altoist) surfaced on the New for Lulu and More News for Lulu chamber jazz trios he recorded with trombonist George Lewis and long-time compadre and guitarist Bill Frisell. And for that matter, on the criminally ignored Voodoo by the Sonny Clark Memorial Quartet, wherein Zorn played hard-bop alongside pianist (and sometime Naked City sleazy keyboardist Wayne Horvitz, bassist Ray Drummond and fellow eclecticist Bobby Previte at the drums.

So you get the picture: Zorn plays, writes, and arranges a lot of weird shit for sure, but he’s a serious jazz musician to boot. Which raises questions like how he named a Naked City track ‘Jazz Snob Eat Shit’? Well, there’s no question Zorn knows his jazz history, culture and chops as well as any intellectually mothballed “discerning” jazz archivist like Winton Marsalis. What Zorn gets perhaps more than any other single living, working jazz musician, is that what this music thrives on and always has, is new blood. Jazz isn’t an idiomatic, pure genre. Sure, its subsets - bop or swing or fusion or dixie or free - are. But as living, dynamic organism, jazz is a thirsty vampire indeed.

So what does Zorn’s Masada group bring to the music? Well, to a great degree this is almost another Ornette Coleman-axis album, but this time Zorn tackles Coleman’s music - and the whole of sixties post-bop generally - through a series of pieces musically drawn from Eastern European and Middle Eastern Jewish traditional musics, and historically inspired by Jewish history, specifically the Jewish mass-suicide at the rock of Masada, a final statement of freedom in the face of Imperial Roman oppression and enslavement.

On Masada 2 - or Beit - the group (Zorn on alto, trumpeter Dave Douglas, bassist Greg Cohen and drummer Joey Baron) work their way through eleven crushing arrangements. ‘Pirah’ starts with a rousing folk theme underpinned with blistering hard-bop rhythms (which Baron plays like no-one on earth); ‘Hadasha’ is a sonnambulistic B movie
theme; ‘Lachish’ is pure Ornette, with mad alto and trumpet scurrying around each other over a schizophrenic rhythm barely settling on a pulse; on ‘Ravayah’ Cohen lays down a funky 7/4 groove while Baron redeems the very idea of the drum solo with a swinging, sassy grace to die for; while ‘Tirzah’ is a long, slowly grinding blues that’s like stepping into the double-life of a secret drinker.

The final part of the Masada trilogy - Gimel - opens in a freer mood but soon settles into the gently swinging ‘Ziphim’, over which Douglas and Zorn exchange impassioned call-and-response phrases; ‘Hazo’ lurches from striding funk to piano-lounge sleaze; ‘Karahim’ is a beautiful and hypnotic Middle Eastern blues around which the horns spin a delicate web; ‘Hekhal’ is a real heart-stopper, a 160 BPM cross-town chase with righteous, temple-bursting horn solos. The set closes with more mourning; on ‘Tannaim’ Baron beats out a slow, steady waltz and Zorn turns in one of finest solos, a soulful, searching cry right out of Ornette’s ‘Lonely Woman’.

These three Masada records aren’t really epochal in any sense. They’re one musician’s earnest attempt to quietly add to and develop the music he loves, and pay homage to the great cultural history of his people. Or they’re four jazz musicians playing urgent music at the very peak of their powers. They won’t change the world beyond perhaps the immediate aesthetic boundaries of the few lucky people dotted around the world who’ll actually hear them.

And yet all this music has a weight, resonance and depth that makes you feel you’re listening to something very special. There’s simply something about this music which gives you the distinct impression that in ten, twenty or thirty years’ time, you’ll actually hear them.

Still, all things good and bad pass, and I’m delighted to say their run of mediocre jazz releases ends here.

I’m rather cynical about acknowledgement lists in new releases, but Molelekwa lavishes two whole pages of the CD booklet on them and gives each name a specific blessing. He even spares four lines titled “Praise” for the Man Upstairs. Could it be that we’re onto a really different recording artist or just a silver disc evangelist? Well, neither really, except insofar as Molelekwa is a pianist with palpable talent. His keyboard work owes little to any particular past pianist. He’s either a total original or a combination of too many disparate influences for any one to get the upper hand. His style stretches way beyond the confines of his South African country and culture. He sounds less African than many musicians of his generation.

The only problem with this CD is Molelekwa’s modesty as he strives, if you’ll pardon the biblical metaphor, to hide his light under a bushel of lesser musicians. When you can play this well, in styles ranging from African and Latin to mainstream, when you have a hammering, metronomic left hand or an easy flowing, rippling tunefulness to call upon at will, the last thing you should be doing is swamping your work in the sound of accompanists. Yet that is what Molelekwa does in his arrangements. I complain of musicians who hog the limelight when it would be a blessing for them to take a back seat, but here is that old chestnut ‘the exception that proves the rule’. Listen to this CD, especially track five, and you’ll get glimpses of how good this player is, but it’s not until the final two tracks that this boy really takes off, and not with any untoward pyrotechnics either. These tracks are simple, solid, mainstream stuff, but stated with a subtle craftsmanship and feeling that left me elated and awe-struck: 1 kid you not.

I said Molelekwa’s backing group is composed of ‘lesser musicians’ but they’re only lesser compared to their band-leader. Molelekwa is set like a diamond in lead in these surroundings. A player of the first water requires appropriate accompaniment, but these musicians are simply not up to his standard, despite being well-accomplished when viewed in a normal frame of reference. Perhaps this problem is further compounded by the rather MOR treatment of the tracks against Molelekwa’s swinging style.

I recommend you buy this album, although you could wait for a solo album, or a even simple duet or trio set that allows Molelekwa to really play. Now that would be a cracker.

Simon Cooke

MOSES TAIWA MOLELEKWA Finding One’s Self BW053

Yes it’s happened! I reviewed Sipho Gumede’s ‘Down Freedom Avenue’ on the B&W label last April for reasons not entirely positive, and I’ve been even less impressed with other B&W releases.

MOSES TAIWA MOLELEKWA Finding One’s Self BW053

JULY 1995
Performing and inspiring, it's the feminine touch with sopranos Barbara Bonney and Emma Kirkby in Schubert and Vivaldi respectively, while pianist Joanna Leach 'squares up' to Haydn. And there's that most moving expression of maternal grief, the Stabat Mater, as interpreted by two very different male composers.

FRANZ JOSEF HAYDN
Variations in F minor Hob.XVII:6/Piano sonatas in C Major Hob.XVI:35; in E flat Major Hob. XVI:49; in C minor Hob.XVI:20
Joanna Leach, piano
ATHENE ATHCD2 (DDD/68.47)

One of the happiest by-products of the Compact Disc era has been the growth of small classical labels devoted to specialist repertoire previously ignored by the majors. It is partly a result of the convenience and consistency of CD manufacture, but also the consequence of a change in both the technology and philosophy behind recording classical music. The past fifteen years has seen the notion that high-quality recording requires a lorry-load of equipment and a squad of engineers utterly disproved. Lower overheads coupled to the changing attitudes of the CD producers have created a climate in which a small operation can thrive, and the Athene label, now distributed by Albany Records, is a fine example.

Athene specialises in the recording of the keyboard repertoire, and with the added attraction of using instruments of the period. All very laudable, but is it purely an academic exercise, or are there true gains to be made in interpretation and appreciation? I would argue the latter, but Joanna Leach's Haydn recital makes the point far more eloquently than I can.

Haydn's piano music is often unfairly seen as the 'hors d'oeuvres' to the keyboard feats of Beethoven and Schubert. But this is to miss its true worth, and to misunderstand its purpose. Much of Haydn's keyboard music was composed for the square piano, a much smaller instrument than we are used to today and one intended for intimate, domestic music-making. The character of the music was designed for this instrument, which is why playing it on concert grand not only fails to convey its true nature, but invites misplaced comparisons.

Enough of the polemic: what of Joanna Leach's playing, and of the pianos she plays? Interestingly, they are all English instruments. The square piano was the first type to be made in this country, during the 1760s. Intended for the drawing room, it was physically small, but full-toned and with good projection. At first, dynamics were limited by the single action, but the advent of the double-action during the 1780s greatly enhanced the instrument's range. Haydn is recorded as being much impressed by the English square pianos during his visits to London.

Each of the four works here is played on a different instrument, three of them built during Haydn's lifetime. The exception is a five-and-a-half octave Stodart of 1823, whose sound clearly demonstrates the improvements made in preceding decades. All pianos have been restored by Andrew Lancaster, who contributes an informative analysis of their history and characteristics to the accompanying booklet, along with a provocative dissertation on the matter of pitch (he opts, incidentally, for $\sharp = 415$ Hz equal temperament, a semitone below present pitch).

Joanna Leach uses the Stodart in the F minor Variations, where its extra range encompasses the expressive contrasts of what has become one of
classical record reviews

Stabat mat dolorosa juxta Crucem lacrimosa - At the Cross station keeping, stood the mournful Mother weeping. Is there a more poignant, heart-rending, touching text in liturgical music? There is no certainty about the origin of this poem which so vividly depicts the Mother of Christ sorrowing at the foot of the Cross, achingly aware that the prophecy of Simeon had been fulfilled, as she had always known it would be. The general assumption is that the first draft, possibly in the hand of Pope Innocent II, appeared during the early years of the thirteenth century. It was then re-worked by Jacopone da Todi, an Umbrian lawyer who after the death of his wife took holy orders and became a Franciscan friar. Jacopone introduced references to the sharing of Christ’s suffering, something of particular significance to the Franciscans since their founder, St Francis of Assisi, had miraculously developed the Stigmata - the Crucifixion wounds inflicted on Christ - in 1224.

While the contemplation of Mary’s sorrows is the main thrust of the poem, there is no doubting the poet’s ardent wish to share them, and to similarly feel Christ’s wounds. The text is used as a sequence in the Passiontide Mass of The Seven Sorrows of the Blessed Virgin (March 24), which is repeated on September 15, and it rapidly gained wide popularity. Yet despite this, Stabat Mater did not officially become part of the Roman Missal and Breviary until 1727. During the sixteenth century, in their reforming zeal, the Council of Trent had excised a number of sequences from the liturgy, including the Stabat Mater, viewing it as an unwholesome encouragement to the cult of Mary-Mariolatry.

One of the earliest surviving settings of the Stabat Mater is that by Josquin Desprez, and very moving it is, though seldom heard now.

Without question the most celebrated Renaissance version is that of Palestrina, music which instantly evokes the gaunt, austere figures and unrequited grief of the Pietà scene, or the chilling finality of one of the more bleakly and horrifically realistic of Crucifixions - the Isenheim altarpiece, for example. After Palestrina, the most performed setting of the Stabat Mater is that of Pergolesi, music of great tenderness and sensitivity, but not short of quasi-operatic gestures and unashamedly literal word-painting. And was it the precedents set by his fellow-Italians that led Verdi to set the text in 1898, and quite beautifully, too?

However, the twentieth century’s two most celebrated versions of the Stabat Mater break with Italian tradition and musical tradition. But both make welcome appearances on what is a technical tour-de-force on the Telarc label.

Haydn’s most celebrated piano works, and rightly so: it is an enchanting piece, and lovingly played here. The gallant style of the C Major sonata is a perfect match for the glittering sonorities of the 1789 Broadwood, while the double-action Astor of around 1800 is ideal for the magnificent E flat of 1787-90. This is one of the finest and most personal of Haydn’s sonatas, rich in ideas and in its slow movement, possessed of music which Haydn himself described as “full of significance”. It is written in the style of an instrumental soprano aria, its charming main theme repeated several times with exquisite decoration. The dramatic minor-key central section finds Haydn exploiting the full expressive range available to him in the left hand, while the right supplies an agitated accompaniment.

The assumption that Haydn’s piano music is lightweight is utterly refuted by the C minor sonata, with its dramatic opening movement and aggressive, restless finale whose air of foreboding remains unresolved in an ending of surprising despondency. Between these outer movements lies an a sublime andante, serene in mood and Bach-like in its elaborate ornamentation; and the delicate chain of trills which takes the pitch to the upper registers of the instrument is simply magical.

Joanna Leach’s finely-judged, slightly-restrained approach is exactly suited to this music, and the result is deceptively seductive and engaging. This is music of quiet, personal pleasure, pleasingly recorded and to be enjoyed - as originally intended - with a measure of intimacy and introspection.

FRANCIS POULENC
Stabat Mater
KAROL SZYMANOWSKI
Stabat Mater* Christine Goerke, sopranos;
Marietta Simpson, mezzo-soprano*;
Victor Ledbetter, baritone*;
Atlanta Symphony Orchestra and Chorus;
Ann Howard-Jones, assistant conductor for choruses; conductor, Robert Shaw
TELARC CD-80362 (DDD/58.24)

• Karol Szymanowski was born in 1882 in what was a Polish enclave within The Ukraine. An ardent admirer of his compatriot, Chopin, his early compositions inevitably, for the period, displayed the influence of Wagner and Richard Strauss. However, the Germanic loaf was lightened by a dash of the exotic, mainly gleaned from the quasi-orientalism of the likes of Debussy. It was an intriguing mixture, but one which by 1918 Szymanowski had thoroughly exhausted. For fresh inspiration, Szymanowski turned to the music of his native Poland, its folk music and rich, largely untapped legacy of Renaissance church music. From these fertile roots sprang a series of highly idiomatic compositions, one of the finest and most immediately approachable of which is Szymanowski’s setting of the Passiontide lament. Although massively
RECORD OF THE MONTH

scored, it is a contemplative, essentially personal act of devotion and significant that Szymanowski uses a Polish translation of the Latin which, added to the orchestral and harmonic colouring, gives an ‘eastern’, almost Byzantine quality to the piece. Yet it is also music of compelling passion and intensity of expression - truly one of the great outpourings of sacred music of our century, and one which the conductor, Robert Shaw, describes as “exploratory psychological surgery of primitive mother-son-God-love”. If by that he is suggesting Szymanowski’s Stabat Mater is as much about the psyche as the spiritual then I am inclined to agree.

But what of the Poulenc which Shaw perceptively analyses as “Twelve balletic tapestries of dense harmonic inversions - from solemn marches to Devil’s tarantella”? That this enfant terrible of French music should have composed any liturgical music at all is in itself surprising, although its possibilities were revealed to him when studying Monteverdi with Nadia Boulanger. However, it took the death of a friend in 1936, and Poulenc’s reacceptance of the Catholic faith, to set in train a series of remarkable compositions that began with the Litanies to the Black Virgin and continued with the strikingly original setting of the Gloria. The Stabat Mater of 1950 displays similar

individuality. It is as Robert Shaw maintains nothing less than a series of ensemble dances for full orchestra, the twelve sections embracing the twenty verses of the Stabat Mater.

The treatment of the subject matter, however, could not be in greater contrast to that of

Szymanowski. Aside from the dance rhythms employed, there is the rich (sometimes, cloyingly so) harmonic language. The mood varies as much as the accompanying rhythms, from a kind of wide-eyed piety to the grief-laden drama of Quis est homo, and from an touching simplicity to a kind of cheerful, sugary singalong style which in the case of Quae moerebat (She who suffered), seems somewhat misplaced. For all its quirks, Poulenc’s Stabat Mater is wholly engaging and possessed of an abundance of melodic invention.

Despite the contrast in styles, both works elicit outstanding performances from the veteran conductor Robert Shaw and his Atlanta forces. The energetic, powerful and precise choral singing is particularly noteworthy, and when all vocal and instrumental elements combine - as in the rapturous Eja mater of the Poulenc - the effect is spine-tingling. Shaw’s interpretations have evident understanding and command of the scores but more importantly, an enthusiasm which has been fully transmitted to the performers. The recording, which incidentally begins imaginatively with an unaccompanied plainchant rendering of the Stabat Mater, is impressive not least for the effortless clarity which it brings to the choral climaxes. Both the scale and the inner detail of the scores are fully conveyed here, and with a notable transparency. The accompanying data reveals that the recording was made using Telarc’s own 20-bit system which employs much refined versions of analogue-digital converters, thanks to work done by Dr Thomas Stockham of Soundstream fame. Whether that superb choral sound is down to Dr Stockham’s ADCs I cannot say, but whatever the technicalities, the end result is terrific.

At the heart of Barbara Bonney’s recital lie Schubert’s settings of the four Mignon-Lieder from Goethe’s Wilhelm Meister. Schubert revered the great German poet and his writings and drew a special inspiration from the Wilhelm Meisters Lebjahre: he set all the Harper songs and the Mignon songs, some more than once, and they rank among the very finest products of his unique genius. Of the four Mignon Lieder performed here so affectingl, one dates from 1815 (Kennst du das Land), while the other three were composed in 1826, two years before Schubert’s death, and at a time when his style was at its most distilled and direct. The sensitivity to the texts and the sublime and telling contribution of the piano accompaniment remains unsurpassed in the repertoire of romantic song.

However, these are not the only Goethe settings in which Barbara Bonney excels: her bright, youthful soprano is perfect for the impassioned outpourings of Ganymed and Nähe des Geliebten, and has captured the touching delicacy of the two Faust settings, Gretchen Bitte and Gretchen am Spinnrade. It was with this last song, now renowned for the magical depiction of the action of the spinning wheel in the accompaniment, that Schubert sought the approval of Goethe for his efforts, but the poet never even acknowledged receipt of the score. Such were the disappointments and lack of recognition which dogged Schubert throughout his short life. Yet here Schubert was re-defining the whole notion of how poetry and music should be combined. He discards the established formal structure of the strophic song and replaces it with an
antoni0 vivaldi opera arias and sinfonias

emma kirkby, soprano; the brandenburg consort; conductor, roy goodman
hyperion cda66745 (dd/74.58)

● Before delving into the musical content of this hyperion issue, i must first commend tony faulkner and mike dutton's recording to you: unfailingly natural in its balance, richly detailed, and fully capturing the delicious timbres of the period instruments of roy goodman's brandenburg consort, it is the kind of sound that immediately settles the listener into a receptive mood. no bad thing, that; when much of the programme will be unfamiliar - indeed, some of the items here have never been recorded before.

unrecorded vivaldi - can such a thing exist? surprisingly, yes: although we might have reached saturation point in recordings of the 'red priest's' instrumental concertos, and seen an encouraging exploration of his sacred music, vivaldi's operas remain virtually uncharted territory. indeed, as eric cross's illuminating commentary recalls, only one opera - griselda - has ever been staged in britain, which is remarkable considering around twenty scores survive, most of them largely complete. so why the neglect? it may have something to do with the plots of the operas, which are chiefly derived from mythology or classical history, stories of unrequited love, betrayal, debts of honour, tortured souls, treachery and sacrifice. but such themes were the stock-in-trade of eighteenth century opera seria, as were plot devices such as disguises, assumed names, and exchanges of identity. no, vivaldi's librettos are no more implausible than many other, better-known operas of the period.

the programme consists of both arias and sinfonias, the latter being a form of operatic overture employing the three-movement structure vivaldi adopted for his concertos. the brilliant opening movements frequently employ the kind of virtuoso violin techniques of which vivaldi himself was a master. altogether there are selections from seven of the operas, including the sinfonia and two wonderful arias from griselda, the plaintive ombre vane, ingiusti orrori (empty shadows, unjust horrors) and the demanding agitata da due venti (whipped up by two winds), with its graphic, storm-laden instrumental effects redolent of vivaldi's tempesta di mare concertos. how confidently emma kirkby copes here with the sequences of rapid repeated notes and the wide vocal leaps.

griselda was produced in venice in 1735, some twenty-two years after the appearance of vivaldi's earliest known opera, ottone in villa, first performed in vicenza in 1713. it supplies two delightful arias to this programme: the dramatic gelosia, tu gia rendi l'alma mia, dell'inferno assai peggior (jealousy, you are already making my soul much worse than hell), and l'ombre, l'auRe, e ancora il rio, eco fanno al dolor mio (shadows, breezes and even the stream, echo my grief). in the former, emma kirkby tackles the demonic semiquaver runs and startling expressive leaps with panache, while the latter finds her at her most appealingly lyrical. here she is joined by fellow-soprano, liliana mazzari, as vivaldi fully exploits the 'echo' potential of the aria's title, a common baroque device. it is easy to hear, too, the 'shadows' being depicted in the hushed strings, with their fall outlined in a descending chromatic bass line; the 'breezes' are picked out by semiquavers on two solo violins, while the stream burbles by with a trilling phrase on two recorders.

chronologically, the next opera represented is l'incoronazione di dario of 1717, after which vivaldi spent two years as maestro di cappella da camera at the court of mantua, a period which yielded tito manlio, with its fine aria non ti lusinghi la crudeltade (do not be deluded by cruelty), one high point of which is its lovely oboe solo. from l'atenaide (florence, 1728) comes the dramatic scena ferma, teodosio which most effectively mixes recitative and arioso and concludes with a magnificent da capo aria distinguished by its relentless, hypnotic syncopated rhythm. the programme also includes the splendid sinfonia from tamerlano (or ii bajazet) and concludes with two items from catone in utica of 1737, an opera whose tragic ending was wholly disapproved of, leading to an alternative, happier conclusion being commissioned from the playwright metastasio. and if doubts linger about vivaldi's ability to respond to texts with music, just hear how, in se mai senti spirarti sul volto, lieve fiato, che lento s'aggiri (if ever you feel slowly wafting around your face, the breath of a gentle breeze), the notes so perfectly capture and embellish the mood and imagery of the words.

the disc enjoys emma kirkby as soprano soloist, and there are those who will acquire this cd purely on that basis. the voice may not be as fresh these days, but still has that jewel-like purity, breathtaking range and agility. captivating and superbly performed as it is, this cd alone is not going to alter the perception of vivaldi as an operatic composer, but its qualities will surprise many and perhaps nurture an interest. what is abundantly apparent, though, is that a reassessment of vivaldi's work in this field is well overdue.
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MR TEILINGER - AUSTRIA

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The finest platter mat in the world.

The Glassmat was developed to improve the performance of the Garrard 301 and 401 record players. However it also gives astonishing results when used on other turntables. So effective is its performance, we have now made it available as a universal replacement mat. In all cases other mats introduce colorations of their own, robbing the music of large amounts of detail and ambience. In order to achieve maximum information retrieval with optimum damping, a hard and unyielding material is required. Glass is ideal in every respect, damping is complete, the playing surface being quite simply sublime. In terms of detail resolution and sheer three dimensional ability, no other mat comes close. But then you still have to consider the absolute clarity, precision and solidity of the presentation. This is the ultimate platter mat.

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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 86 dB) 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 affect their subjective results. About tonal balance and character traits, like peaky treble (due to a mismatched MPX filter). Distortion and channel separation need to be less than 0.3% (according to harmonic structure) and better than 25dB.

HiFi level must be lower 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.

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 40kHz to -30MHz, 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 40kHz to 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.

TUNER

MICROMEGA TUNER
In spite of digital filtering above 15kHz, the Micromega had an audio frequency response no flatter than usual (see analysis), possessing enough treble lift to add brightness to its sound - not a good idea with tuners. The filters did effectively eliminate unwanted signals, like pilot (19kHz) and sub-carrier (38kHz), but little better than analogue filters.

Channel separation was wide across the audio band and distortion low at RF inputs below 1mV. It rose steeply at higher inputs, so this isn't a tuner for areas of high signal strength. Sensitivity was satisfactory, although weak mono signals are muted, so they are not receivable. Selecting Mono does not lift muting, as is usual on Japanese tuners. Selectivity was excellent, but hiss only just low enough at -71dB on stereo. Audio output was high at 1V. NK

Frequency response 6Hz-15.2kHz
Stereo separation -41dB

Distortion (50% mod.) 0.16%
Hiss (CCIR) -71dB
Signal for minimum hiss 1mV
Selectivity (at 0.4MHz) 80dB
Sensitivity
mono n/a
stereo 32µV
signal strength meter
LED No. level (µV) -5 20/80/160/250/320

Frequency Response

Treble lift and bass roll off will give a thin balance

Distortion

Reasonably low distortion

Frequency Response

With external DAC bass doesn't roll off as much
The Synergy was designed for maximum pleasure minimum fuss.

All on one chassis it incorporates a remote controlled dual mono preamplifier (housed 2" from the inputs) and a dual mono power amplifier developing 150 watts per channel of smooth detailed muscle, plus an On Board Bias Control for easy and accurate tube maintenance.

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Described here are only a few features of the Synergy, for a complete discussion and audition of this and our other remarkable products please contact us for your nearest dealer and colour brochure.

From the moment you hear The Synergy... you realize that its unique styling is a major contribution to it's musical performance.

Gold Aero

The Synergy is shown here fitted with Gold Aero tubes from the USA. These are high grade, audiophile vacuum tubes which have attained world class respect for their sonic qualities. Now available in the UK via Tube Technology & their selected dealers. Please enquire for a tube list & brochure.

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All Tube Technology amplifiers are designed and manufactured in England.
AMPLIFIERS

OMAK JEWEL ONE
Omak’s Jewel One is an impressive beast. It uses a pair of EL509 output valves coupled to a massive ‘C’ core output transformer to produce 50 watts into 8Ω and a sturdy 80 watts into a 4Ω load. This is an impressive performance for a valve amplifier, and makes it one of the few that will drive just about any loudspeaker, Quads included.

Response extends well down too, reaching 3Hz in the bass. More impressively the Jewel One managed to swing full output at 20Hz, so I’d expect plenty of bass slam and power. Distortion was low too, at 0.026% with a 1 watt signal at 10kHz, which should ensure a clean sound.

Elsewhere the Omak Jewel One continued to show quality engineering with wide separation, extremely low noise and an input sensitivity of 550mV allowing a passive volume control to be used with CD and other sources with a healthy enough output.

THORENS TTP-2000 /TTA-2000
This is an unusual design. The power amp runs hot when idling, so it is probably biased heavily into Class A. It produces a lot of distortion which, unfortunately, is not all second harmonic. Our analysis shows substantial amounts of second, third, fourth and fifth, that in total measured 0.2% at 1 watt output. At this level it will colour the sound.

As output increased to a maximum of 32 watts so did distortion, reaching 1.3%, which will affect peaks. It’s the 1-watt distortion level that affects all music. The only saving grace was that distortion level held steady at all frequencies, suggesting low or zero feedback. Unfortunately, fundamental linearity needs to be better before feedback can be removed without distortion like this becoming audible.

Output clipping was asymmetric into a low four ohm load, a bad feature that limits power and results in a net d.c. component being generated at overload.

The disc stage had inaccurate RIAA equalisation, with steadily falling low frequencies (318μS) and rising highs (75μS), which will give a bright, thin sound balance. A warp filter cuts signals below 40Hz.

The Thorens measured so badly we asked for a second sample, but it was identical. The measured peculiarities of this amplifier will be audible, producing a different character to the norm. Some may, initially at least, take to it, but long term the effects are likely to pall. It isn’t a design I would recommend.
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The Smiths - Meat Is Murder
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The Smiths - Meat Is Murder
CD PLAYERS

TEAC VRDS-20

TEAC's VRDS-20 displays some interesting traits. Frequency response has a strong treble peak, the lift starting from around 10kHz, an effect that will brighten tone and may even reveal itself as sharpness. The peak is a strong one, reaching +0.5dB at 20kHz, so I'd expect it to have a noticeable subjective impact.

The distortion characteristic of the VRDS-20 doesn't help matters either. Although only a little higher than the best in its class, the harmonic structure is mainly odd order, which normally adds a sharpness or coarseness to the sound. Combined with treble lift, this may well be none too pleasant.

Elsewhere, the VRDS-20 is well engineered. It has low noise, wide separation, good dynamic range and output just a touch above the Philips standard at 2.3V.

**Frequency Response**

-6dB 0.006 0.007
-30dB 0.019 0.018
-60dB 0.52 0.56
-90dB 29.8 30.3
-90dB dithered 7.6 8.4

**Distortion (%)**

-6dB 0.006 0.006
-30dB 0.01 0.01
-60dB 0.82 0.79
-90dB 36 34
-90dB dithered 8.1 8.3

**Separation (dB)**

-left 108 107
-right 82 83

**Noise**

-with emphasis -98dB -99dB

**Dynamic range**

104.5dB

**Output**

1.98V

LINN KARIK III

Linn's new Kariik III CD player has a smooth and flat frequency response. There is a little treble lift starting from around 10kHz which will give it a slight brightness which may well be perceived as extra clarity or detail.

Distortion is reasonably low at all levels, with just a small amount of innocuous 2nd harmonic visible at -30dB, a level picked to represent a typical music signal. At -60dB, distortion at 0.8% is a little higher than the best, yielding a dynamic range of 104.5dB (EIAJ test).

Output of the Kariik III was very close to the Philips standard of 2V and noise low enough to be inaudible. Separation was also wide and consistent between the two channels, showing good circuit layout. All in all, a well engineered player.

**Frequency Response**

4Hz-21.25kHz

**Distortion (%)**

-6dB 0.004 0.004
-30dB 0.022 0.017
-60dB 0.63 0.60
-90dB 28.3 28.4
-90dB dithered 20.7 9.17

**Separation (dB)**

-left 119 119
-right 110 104

**Noise**

-with emphasis -104dB -104dB

**Dynamic range**

105dB

**Output**

1.96V

SONIC FRONTIERS TRANSDAC

The Sonic Frontiers Transdac has a well engineered frequency response. Bass lifts slightly, which will give solid lows, and treble is gently rolled off to prevent sharpness. This, combined with low overall distortion, should give the Transdac a very smooth sound.

Looking at the distortion plot taken at -30dB, a level chosen to represent a typical music signal, 2nd and 3rd harmonic distortion is very low. There is some higher order distortion, but this is low and predominantly even order in structure (4th, 6th, 8th, etc) which is normally innocuous.

Elsewhere the Transdac measured competently, with good separation, low noise, and a wide dynamic range of 105dB, helped by low distortion.

**Frequency Response**

4Hz-21.1kHz

**Distortion (%)**

-6dB 0.004 0.004
-30dB 0.022 0.017
-60dB 0.63 0.60
-90dB 28.3 28.4
-90dB dithered 20.7 9.17

**Separation (dB)**

-left 119 119
-right 110 104

**Noise**

-with emphasis -104dB -104dB

**Dynamic range**

105dB

**Output**

1.96V

Frequency Response

-6dB 0.006 0.006
-30dB 0.01 0.01
-60dB 0.82 0.79
-90dB 36 34
-90dB dithered 8.1 8.3

**Separation (dB)**

-left 108 107
-right 82 83

**Noise**

-with emphasis -98dB -99dB

**Dynamic range**

104.5dB

**Output**

1.98V

**Frequency Response**

4Hz-21.25kHz

**Distortion (%)**

-6dB 0.004 0.004
-30dB 0.022 0.017
-60dB 0.63 0.60
-90dB 28.3 28.4
-90dB dithered 20.7 9.17

**Separation (dB)**

-left 119 119
-right 110 104

**Noise**

-with emphasis -104dB -104dB

**Dynamic range**

105dB

**Output**

1.96V
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LOUDSPEAKERS

HEYBROOK SEXTET II
Heybrook have modified their popular Sextet loudspeakers quite considerably, our frequency response plot reveals. Treble level has been reduced to make the character of the super clear sounding Tonigen tweeter less obvious. The midrange from 2-5kHz now has a gentle lift which will give more apparent detail and better projection subjectively, and low frequency level has increased to give a fuller, deeper bass than the original version. There is still a small dip where the SEAS midrange unit struggles to get up high enough to reach the Tonigen ribbon, but I suspect this re-balancing will bring about a welcome improvement overall.

The impedance curve of the Sextets is very smooth, so they may lend themselves to zero feedback amplifiers particularly well. But there is a fall at high frequencies, so expect them to sound a little softer with such amps. The overall impedance measured just a touch under 8Ω, making the speakers a normal enough load, and sensitivity has improved slightly to 88dB, making them suitable for amplifiers capable of producing 30watts or more. DB

RA LABS MINI REFERENCE
The Mini References are a little larger than most mini-monitors at this price level, something that helps give them better bass extension. They showed good bass energy right down to 60Hz, which is about the limit of our test room. Their overall frequency response is smoothly integrated, but high treble output will result in a bright subjective character.

Sensitivity of the Mini References is a little above average at 87dB, measured at 1m using a nominal watt (2.83V) pink noise signal. But the overall impedance of 5.4Ω is not so kind, suggesting they will draw more current than most. Looking at the impedance curve you can see that below 300Hz or so impedance drops below 5Ω, so for best results they need an amplifier capable of driving a 4Ω load. DB

KEF LS3/5a AND ROGERS AB1
The standard LS3/5a on its own has a smooth response. Upper treble can be seen to be rolling off a little early at 16kHz, and low down there is the characteristic bass lift which gives these miniature loudspeakers good bass punch and power for their size.

Adding the Rogers AB1 subwoofer to the LS3/5as removes some of the low bass from their little Bextrene cone, allowing greater volume levels without distortion and I suspect that, subjectively, midrange clarity will improve as a result. Whereas the LS3/5as start to roll off in the bass below 80Hz, with the AB1 subwoofer added full level is sustained to 60Hz in our test room. It may sound like only a little improvement, but this extra 1/2 octave will have a strong subjective impact, adding greater weight and scale to a performance.
CASSETTE TAPES

DEFINITIONS
MOL 315 (Maximum Output Level at 315Hz) - midband overload ceiling.
SAT 10k (Saturation at 10kHz) - treble overload ceiling.
Hiss - technically, bias noise, IEC weighted, Ref. IEC 0dB.
Modulation Noise - band noise 1k-3k, produced by 3150Hz tone.
Sensitivity - relative to IEC 1 Primary Reference Tape.
TREBLE LEVEL - level at 10kHz, relative to IEC 1 Primary Ref. Tape. A spot check of frequency response; correlates with response analysis pics.

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<th>SAT 10k</th>
<th>DYNAMIC RANGE</th>
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Serious Kit

Newsletter No. 3

It seems that the format of our newsletter is indeed catching on. Or perhaps simply its contents are making sense to more than only the readers of Hi Fi World! Indeed Audionote UK, who have been the centre of the letters contents, have noted increased awareness of their products from retailers all over the U.K. Still it is nice to uncover, on a grand scale, one of "Britain's best kept secrets" to benefit all music lovers.

The last month or so has been very active with Serious Kit joining in the festivities of the recent "Great British Hi Fi Show" at Buxton. A busy time indeed, but I have managed to spend time getting to know the M2 and P4 pre and power amplifiers from AUDIONOTE.

The M2 is a phono (m.m. and line) pre-amp of exquisite quality, sonically matching the truly awesome, awe-inspiring P4 power amps. The Pre is priced at £1,700 (or £1,000 line only) whilst the power amps retail at around the £4,000 mark for the pair. They are incidentally 18w, 300B fully tubed mono-block amps. I have to suggest to anyone using Quad Electrostatics that these are the amplifiers to use with them.

It also has to be said, in all fairness to other available products, that in my 12 year experience doing this job I have never heard or experienced amplifiers at this price level that can convey such effortless dynamics, intimate, intricate detail, transparency from top to bottom and such grand scale of works. Whether it be small Jazz quartets or full orchestral, solo soprano or rock music, these amps add less of their character to recordings than any other at the price level. So, are they perfect? Well, nothing is perfect (writer accepted!!?) but you have to spend an awful lot of money to hear anything even slightly superior in any given area. Where does one go from the M2, P4 combination?! Er, em, perhaps to the friendly bank-manager, "Please—Sir will you finance an AUDIONOTE ONGAKU amplifier for me?!?" But seriously this is how good, in a well matched system the M2, P4 is. These amplifiers will drive all but the most inefficient loudspeakers to more than adequate levels, in all but the largest of listening rooms.

Perhaps, when one look at the original legendary JAPANESE AUDIONOTE products such as the M7 pre-amp, ONGAKU, KEGON and ONGAKU-ON amplifiers a similarity of technologies can be drawn with what Audionote UK now produce, although with less exotic components. This offers prospective purchasers, top rank hi-end equipment at "within reach" prices. If you have never heard these amplifiers, then arguably you have never heard music reproduction at it's most natural. In fact, forget all the reviewers latest adjectives and superlatives which attempt to describe the indescribable. Audionote amplifiers can only be described as NATURAL. They are a living, breathing entity. As the recorded music itself.

The final paragraph(s) concentrate on Audionote's ideas on loudspeakers. AN'K', AN'J' and AN'E" all use the idea of using the 'box' as a live instrument body. In much the same way that great instrument makers use special materials to "tune" resonances in guitars, pianos, violins etc. This results in all three models using 2 drive units (1 x H.F. and 1 x L.F.) but in varying sizes to suit three different size "boxes". All cros- over units use very highly tolerenced components. The end result is very, very musical. High sensitivity is of course one of the initial design criteria therefore complementing low power amplifiers. A classic case of the less is more. If in doubt, call for an appointment to experience the most natural audio reproduction system available.

As ever, wishing you a musical month ahead, till next time.

Kind regards

Davie W. Speirs

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<td>Wet Wet Wet</td>
<td>Picture This</td>
<td>8.90</td>
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<th>MODEL NO.</th>
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**SECONDARY IMP. 4, 8, 16 OHMS**

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**TAMURA TRANSFORMERS**

SECONDARY IMP. ALL 16, 8 OHMS

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**MAGNEQUEST TRANSFORMERS**

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**BLACKGATE CAPACITORS**

VALUE SERIES

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<td>47uF x 2</td>
<td>5604</td>
<td>SI</td>
<td>2 VALVE PSU 5250</td>
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<td>100uF x 2</td>
<td>4704</td>
<td>SI</td>
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**MISCELLANEOUS**

| W: 120 WATTS |
|              |
| 100W 475V    | 120W   | 475V        |

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<th>Component</th>
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**Goldring/Lenco**

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**Technics**

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**Cecil Watts Dustbugs/Parastats**

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<td>Spares incl. Preener wicks</td>
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JULY 1995

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MERIDIAN 661 DSP pre amp. Meridian 605 mono amps. All mint condition with remote £3,500.00 the lot. Tel: 01527 543442

MARANTZ CD10 £695, KEF 104/2 Kube 200 £600, Audiolab 8000c Mk2 £275; Meridian 205 monoblocks £645; Nakamichi DR2 £375; tuner MF/1 £125, Yamaha WX660 £95; Twin 505/4 turntable £125, Rotel RT850L tuner £75. All boxed and perfect. Tel: 0279 724084 (Herts).

QUAD II, pair of power amplifiers supply/pair 140 monoblock power supply and Regs RB300 silver wired £1,500 ono (Rosewood). AVI tuner combination £170. Tel: 0272 486375.

AciAl 4000 DS MK8 re/feel £175, Tandberg Model 6 valve rectifier, very clean but needs service £75, 220 7" Reels all really collectable equipment shows £200 the lot, Target Basic 5 tier stands £45, 5 tier deluxe £95, 5 T stands £60.


QUAD 33/330 amplifier - £180; Transcriptors Hydraulic Reference turntable with full arm, stylus, stance arm - £295; Shure V15/3 cartridge/stylus - £35. As new, really low condition, very low use. Tel: 01684-652385 (evenings).

MUSICAL FIDELITY preamp P173 and PSU £400 - £550 monoblocks £400.

SONUS FABER Minuettos as new, complete with stands £745. Tel: 0263 717606 after 3pm.

Nakamichi 1000 ZXL cassette deck complete with Dolby C, plus corderless, original box and manual. Unmarked, perfect working order. £1,000. Meridian 620 transport, twiir processors plus AT & T output. Audio Synthesix Dave, fitted all crystals plus AT&T input, gold front export version, factory built, £2,200 the pair.

Tel: 01737-210108.

EXCELLENT T.DL monitoring loudspeakers with dedicated stands. Black. Absolutely as new, with original box and manuals £2,100 new. £1,500 o.n.o. Tel: Kesh 02196-686631.

KEF 104/2 REFERENCE Loudspeakers black ash, 92dB sensitivity. Dynamic, detailed sound. £650.


DAC6 REMOTE control preamp, as new £350. Tel: 01403 272124.


EXPOSURE 15 INTEGRATED amplifier, moving magnet and moving coil photo boards, boxed, excellent condition £300. Denon 9000CD transport, twiir processor plus AT&T input module and matching AT&T power supply. High-end sound for £595. Tel: 01784 457332.

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ACOUSTIC ENERGY AE-2, bi-wireable, dedicated stands, boxed, great condition for only £750.

CELESTEON SLS5 black as new, boxed £250, KEF Quatro (C10 and CS200 subwoofers) £165, Gale 301 black ash £170, Dual CS505 £65, AR1BXX £80. All boxed VGC. Tel: 02727 271217 (Berk's) or 0585 176568.

ATOLL E5/13 loudspeakers including stands, excellent condition. £1,250. Lacquered speaker, stereo, offers. £580. Tel: 01642 729453 (answphone).

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HIGH-END PRE / POWER combination. Finetra pre, MC and 4 line, min, boxed (£1,300 new). Trio L08, powerful Class A Monoblocks (over £2,000 new). Truly excellent sound. Accept £900 o.n.o. for both, may split. Tel: Adil 0181-677 6272 (evenings / weekend). No time wasters please.

FRIALIGHT TALISMAN Floor standing speakers, rosewood, one year old, mint condition £425. Linn KI preamp (twiired) and LK2 power amp, excellent condition and remote control and all leads and interconnects £350. Tel: 0375 780526.

MERIDIAN 206 Delta Sigma £595. Linn Kellidh new anlurgy, including bases £550, Pink Triangle, Linn Basik plus £300. Deletor little bit DAC £175, VTL deluxe valve pre £255. Mick 01926 831388.

EXPOSURE VII pre-amplifier and VI power supply £350 ono. Tel: Horsham (0403 241304).

NAIM 425 PRE-Amp and QED 4 – line input expander £125. Linn Kanta plus original stands (plied) £200. All mint condition with boxes. Tel: 0993 841768.
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WANTED QUAD 66 Preamp, 66 tuner, Quad 405/2, boxed, mint condition £1,100. Wanted: good quality speakers and C.D. may PX.

Tel: 021844 26018290x.

MERIDIAN 205 MONOBLOCKS, Meridian 401 Pre-amp, superb condition £1,000. Wanted, good quality speakers and C.D. may PX. Tel: 01641 26018290x.


Tel: 01952 520979.


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Tel: Weekends 01227 742566.


Tel: 0117 2738153.

KLIPSCH FORTE II-way Speakers Fr. 32-20 KHZ. 92 dB efficient. One year old. Works outstanding in theatre configuration or stereo. Walnut oil finish. Very clean, tight sound. £550 ono.

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McINTOSH PRE-AMP AC26, excellent sound and condition £795 ono (new £1,800). Quad 405-2, one of the very latest, mint £620.

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Tel: 01279-509426 (Bishops Stortford).

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Tel: 01621 860 630.


Tel: Martin 0181-518 8577.

TEAC X1000 OPEN REEL REEL £250. Denon DRM 800 A 3 Head Cass. £175.00. Leak Troughline Toner and Stereo 30 Amp. £80. Ariston RDDBS T/Table and Mission arm £90.00. Offers considered.

Tel: 0161-725 8081.

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Tel: 01903 239980/217746.

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Tel: 01621 622230 or 0121 692 1359, from 10.00 - 6.00.

AUDIOLAB 8000A amplifier, bought January 1994 60 w.p.c., perfect working order, unmarked case. £310.00.

Tel: 01246 419269 (Chesterford).

NAIM SBLS: EXCELLENT condition, £1,000; 72 Pre-amp, £400; Flatcap, brand new, £280; Mant Reference Table. £250, Linn LP12, Arco, Dynavector XXII, offers.

Tel: 01213-341943, evenings, weekends.

AUDIOLAB 300B S/E Amp £600 year old, Micromega Stage I £350 one month old, Snell K2s and Pirate G50 £1,755 the lot.

Tel: 01324 841742.


RELUCTANT SALE: LFD LS2 pre-amplifier (£1,000). From 10.00 - 6.00. LFD 320A (£395).

Tel: 01703 766586.


Tel: 01642-246939 (Giles).

NAIM MAC2, NAP410 new style Hi-Cap power supply mint, boxed with heads £1,100 o.n.o.

Tel: 01815 500932.

RELIANT SOLD LED 5L2 pre- amplifier (£1,599) £695 o.n.o. LED PA2 power amplifier (£1,599) £695 o.n.o. Both £1,200 in V.G. C. Spender (£290 speakers mint £279 on o.n.o.) Other equipment enquire John (01603) 38752.


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LINN LP12 (BLACK), Valhalla, Itock LVI, AT/03, XLO digital cable (transport to DAC) (th [video signal] V2) half metre, gold plugs £45.
Tel: 01792 774321.

MERIDIAN 203 DAC7 converter mini, box, £35. XLO digital cable (transport to DAC) (th [video signal] V2) half metre, gold plugs £45.
Tel: John (01865) 687475.

MERIDIAN MCA1 component amplifier (CD, tape, MM, MC, 35 wpc) 2 x PPA power amplifiers - £100 each. £650. Also available Yamaha RX390 receiver, Technics SL7 turntable. Offers? Oxon
Tel: (01869) 277525.

REVOX B77 £500, B750 amp - £250. B760 tuner - £450 mini condition with manuals, take £1,100 the lot including Revox stacker unit. Sansui AU-999 70-70W rms amp £250, Sansui TX-7700 tuner £150, Pioneer CT-F1000 3 head cassette deck £250 Armory dealer speakers 15" cantilever drive unit) resell this £650.
Tel: 01483 726643 (Woking).

EXPOSURE V71/VI Super V80s £500, Naim 42.5/1100 amps £100, Naka Jans, stands, Chord cables £425. PPA PDM Series 2 DAC £225.
Arcam Alpha CD £185. All excellent condition. Tel: 0206 272314.

FOR SALE: P.S. AUDIO 4.6 preamp £625. Audio Technica OC 30 cartridge £150. Omega turntable with Omega Point One arm and Accuphase AC2 cartridge £800.
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Tel: 01342 712653 / 0191 399 6308.

Tel: 01474 704382 (N. Kent).

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Tel: 01942 818752.

PETER SANHEN, PS AUDIO 1.5 pre-amp. Very rare (only 30 manufactured) but highly regarded by reviewers. Unusual design concepts. Complete with MC phono stage, in excellent condition. Cost new £2350, will accept £1,100.
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ARCAM DELTA transports and Black Box 2, as new with Sorbonthea feet: £325.
Tel: 01224 589471 after 6pm.

LINN KAN MKII speakers (Black) with Atacama SE24 stands. Excellent condition demonstration possible. £2200. No offers.
Tel: 0171-406 0888 or 0181-665 6183.

Tel: 01633 400546.

GARRARD 301 ON PLINTH, SME 3009 (nearly new £140, Telequippment Double Beam Oscilloscope, Model D43, valve, £120. Rogers early valve amp, mono, pre-amp, £30.
Tel: 01843-832926, (Margate).

YAMAHA NS-1000 monitor loudspeakers, black finish. Including three column Target stands, mint condition £450.00.
Tel: 01502-563750 (Suffolk).

EUROSL ELECTRICAL oil loudspeakers. WANTED privately.
Tel: 01643 821137.

ARCAM DELTA 290 integrated amplifier. One year old, box and instructions. V.G.C. upgrade sales far £295 o.n.o.
Tel: 01494-760255 (Bucks).

ENTHUSIASTS CLEAROUT - Rare valve amps from Leak (various), Lowther, Pye, Quad etc. Quad ELS, Spendor BC1. Thorens TD125.

Ring 0181-989 6434 or work 0171-412 7410.

LEAK TROUGHLINE stereo tuner for sale £120. Leak Troughline PM mono tuner (easily converted) for sale. £95. Golding GL75 Transcription deck with arm and Shure M75 cartridge £35.
Tel: 01705 358052.

PIONEER PD95 - mint condition - top end of CD player £1,400 ono.
Evenings 0202 510304.

ROKSAN XERXES, fitted with Tabriz ZT tonearm and Linn K18. XPS 2 power supply. Recently serviced and up-dated with new Botts. Finished in black and fully boxed. £500.
Tel: 01977 552813.

CADENCE VALVE pre-amp, MC and MM phono inputs. CD tuner and A/V inputs, excellent condition, £400 ono.
Tel: 01264 361778.

Tel: 01903 239980.

Tel 0945 63856 (Cambs).

WANTED: AUDIOLAB 8000C + P. Tel: c/o 0191 266 2292 work; 0191-266 3353 home.

NAIP PA160 & Cerafines NAC32 + P.S.U. £395, Epos E154, Sound Engineer B.C1, Audiolab Konzept, 92DB designed for valve! Revox G36 half track, high speed, Thorens TD1241, Meridian 206D5, ADI-ESE Valve monoblocks. Tel: 01642 55943.

RADFORD STA 15 requires attention to one channel £135. Rogers STM70 pre-amp £65. Exposure 7 pre-amp and power supply £150. Van den Hul MCI cartridge, little used £250.
Tel: 01225 31326 (Surrey).

ACOUSTATA TTA 310 electrostatic hybrids. Excellent sound. Complete £1,300, sell £500. Mod Squad Line Drive, high quality, passive only.
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PAIR ORIGINAL “Williamson" triode valve amps. Old and very ugly but rebuilt with Holco resistors and Sidereal capacitors £425. Tatty pair. Quad Electrostatic speakers £150.
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ENTHUSIASTS CLEAROUT - Marantz CD63SE, Rogers LS7 speakers: Target H15 stands; Mission PMC II, Mission DAD 7000R, Technics SL7 deck; NAD one speaker; AKG Q750A. Quadrasonic decoder; Dual C5505, plus other items.
Tel: 0121-350 9220.

OFFERS WANTED for Techins stereo cassette deck 671; tuner ST 9660; integrated amp SU 6600; D Drive turntable STL 130; speakers SB 6000. All in black.
Tel: (01292) 264152.

RONSAN XERXES: fitted with Tabriz ZT tonearm and Linn K18. XPS 2 power supply. Recently serviced and updated with new Botts. Finished in black and boxed. £500.
Tel: 01977 552813.

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Naim 721B £180, 200. LP12/Pink Link/Ittok/Clyde £1,000. EPOS ESI £15 will past for: old style Naim power pre, Rega 3/Dunlop. Epos ES II. Tel: 0226-764749.

Harman-Kardon 6800 amplifier. Three years old. £375 (cost £800). Denon 101 M.C. cartridge. £50. (As new). Conservatorium 78 pick-up (takes Thorns). £10 Tel: 01249 81256.

Rogers Studio 3, Walnut, boxed and mint (£500) £330 ono. Pioneer car equaliser, EQ1001, Din (£200) £120 ono. Also boxed and mint. Call Phil 01208 75376 (Cornwall).

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LEAK TL12 POINT 1 wanted by enthusiast. Domestic, open frame turntable type. Must be in good working order. Decent price paid for right one. Tel: 01643 702739. Ask for Steve.

LUMLEY REFERENCE M120 valve mono-block amps, 15 months old, mint condition, new cost £2,200, quick sale £1,450 o.n.o. Audio Alchemy, DDT V1.1 (transport), DDC V1.1 (D.A.C.), with extended digital processor, digital transmission interface, power station 2, transport. Trichord clock modification, one year old cost £2,200. Quick sale £1,095.00 o.n.o.

Please phone 0181-574 2961.

FOR SALE: SONY MDR 1000 headphones, mint. Cost £180, now £110.

ALPHASON HR 100 M/Cs tonearm £350 new; 14 months old £300.00. Can demonstrate on Garrard 401. Tel: 0121-357 6533 after 6:00pm. Tel: 0121-446 4545 ext. 3272 work. Mike.

MITCHELL GRYDWOKE wanted. For Sale: Leak Stereo 50, gold plated valve holders. Holco and Kimberm fitted. All internal wiring solid silver. Garrard 401 £90. Tel: Alan 01661 852874.

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AUDIO INNOVATIONS 5000 two channel integrated amplifier £250. £1,500 new. £1,095.00 o.n.o.


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<td><strong>ALEMA U.K.</strong></td>
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<td><strong>ART AUDIO</strong></td>
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<td><strong>AUDIO BY DEVELOPMENT</strong></td>
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<td><strong>AUDIO ENGINEER</strong></td>
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<td><strong>AUDIO ILLUSIONS</strong></td>
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<td><strong>AUDIOFILE FURNITURE</strong></td>
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<td><strong>CHOICE HI-FI</strong></td>
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<td><strong>CONGLETON HI-FI</strong></td>
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<td><strong>ELVINS ACOUSTICS</strong></td>
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<td><strong>EMPOIRUM</strong></td>
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120/132
LPA - 10 Line Amplifier
PA - 10 Phono Amplifier

SDT-1 CD Player
Optima - CD Player

SDD-1 CD Transport
SDA-1 CD Convertor

SF 60 Line Level Integrated
SF 100 Line Level Integrated

AU 41 Pre & Power Amplifier

J.E. SUGDEN & CO. LTD
Valley Works, Station Lane, Heckmondwike, West Yorkshire WF16 0NF
Tel. Heckmondwike 01924 404088/9 Fax. 01924 410069
What else can we say....?