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Issue 13 - Sep / Oct 2001  
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# Editorial

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Last Issue I recounted my pleasure at picking up a selection of collectable vinyl for next to nothing, only to find myself lambasted by a second hand record dealer for undermining his business. He was quick to point out that the knowledge required to select and price second hand records is just as involved (and just as hard to come by) as the knowledge required to sell hi-fi. And I have to agree.

It's easy to forget that for every three-figure copy of Ricci's Carmen Fantasie on Wideband Decca SXL, there are literally hundreds of Classics For Pleasure "Your Hundred Favourite Tunes" or South Pacific soundtracks. Nor is it as simple as looking in a book. The arcane knowledge of pressings, plants and matrix numbers, but more importantly their significance, is something that only comes with considerable experience. Just ask JMH. So when you go into a second hand record shop and look at a stack of desirable discs priced at anything from a tenner upwards, before you bridle at the price just consider the process (as well as all the dross) that had to be waded through so that you can just wander in off the street. Sure, you might find the same disc for 20p at Oxfam, but the operative is might, with no guarantee of availability, condition or vintage. Just like you find the odd Stereo 20 at boot sales or you could build a turntable in your shed. Convenience costs, and so does the security that comes with buying from a reputable vendor. It's always great to find an absolute bargain, but it's a hit and miss way of assembling a record collection – or a hi-fi come to that.



# A lot of changes - and still rather a lot of money.



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Like all the best things in life, they still don't come cheap - but to anyone who really appreciates sound, they're better value than ever.



REFERENCE SERIES



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# Shows multiply and so does Hi-Fi+'s Sponsorship

In an interesting development, Chester Group, the independent promotion company responsible for organising last year's Manchester Hi-Fi show are spreading their wings to embrace, not only another Manchester show but additional events in Scotland and Dublin. What makes this so refreshing is Chester's willingness to recognise the importance of local dealers in the successful promotion of these events. The result is rather more focussed and from the exhibitor's point of view, tends to attract more serious visitors, especially as the organisers are prepared to listen to suggestions regarding making the show generally more entertaining and informative. It's a trend that we are only too happy to support.

To that end Hi-Fi+ will be sponsoring this year's Manchester event, which means that in return for our name on the banners we get a chance to organise an active demonstration which, if everything goes according to plan will give you guys the opportunity to compare the performance of SACD, DVD-A and high quality CD, all played through a serious high-end system. Of course, it wouldn't be right to exclude the incumbent champion, so we'll be playing LPs too. (You just knew that we would). We should also have representatives from Sony and Pioneer to update you on the latest developments, as

well as Vivante to supply you with the latest software. So hopefully we'll be seeing you there.

We'll also be lending our weight to the Dublin event, (especially after having such an outstanding time last year) although what we'll actually be organising by way of entertainment remains to be seen. Meanwhile, don't be put off by the distance. A weekend in Dublin is just what you need, with both the city and the show offering the warmest of welcomes.

**Dates and details confirmed so far include:**

**Dublin:**

3rd and 4th Nov. 2001 @ The Burlington Hotel

**Manchester:**

17-18th Nov. Manchester 2001 @ Hilton Airport Hotel

**Glasgow:**

18-20th October 2002 @ The Thistle Hotel

For further details contact Roy Bird at Chester Group on:

Tel. (44)(0)1829 733238

Fax. (44)(0)1829 730246



## Stop Press! Stop Press! Stop Press!

Breaking news as we close this issue is that Chester Group has announced plans for a London show in September 2002! To be held at a prestige airport hotel, the show will be easily accessible from both inside and outside London and is, the organisers

say, a response to constant pressure from within the industry. We will be watching developments with interest (to say the least) and will keep you posted. One thing's for sure though; this'll really set the cat amongst the pigeons!

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# Chord Co. Move Up Market

Following on from the discussion of Microwave cables and the impact that they're making in audio circles back in Issue 9, here at last is the first sight of the promised new product from UK based cable creators the Chord Co. With Microwave conductors set to bring high-end cable performance down in price (everything's relative remember) it looks like they could well be the next big thing in the ever changing cable market. The Signature series (named in a stunning outbreak of originality chez Chord) also enters new territory price wise for a company that's always been recognised for offering no-nonsense value for money product. Well, price apart nothing has changed. Chord are confident that the new cables more than justify the price tag and preliminary listening suggests that they are right.



The Signature interconnect costs £500 for a metre pair, which buys you a set of substantial cables, each one about as thick as your finger. A balanced design, each channel consists of a pair of heavily shielded co-axial conductors.

The multiple shields are arranged as a fully floating screen, although a flying lead is fitted should you want to tie them to earth. Conductors are silver plated copper and the Signatures use the same lightweight silver plated plugs and silver solder as the Anthem.

You'll be able to judge for yourself at the Novotel show, where a number of people will be using the new cables. In the meantime, for further information you can contact The Chord Co. on:

Tel. (44)(0)1722-331674  
Net. [www.chord.co.uk](http://www.chord.co.uk)



## 'Funky Horns' from Beauhorn

If the Beauhorn Virtuoso speaker reviewed in this issue appeals to your musical sensibilities but not your wallet, then you'll want to know about a new model being launched by the South Coast based company. The B2 is as striking a design as I've seen since I first clapped eyes on the Avantgardes. Like the Virtuoso, it's a folded (bent might be a better description) horn design, and true to the Beauhorn ethos, uses a single driver to cover the entire frequency range. However rather than a Lowther design, the B2 employs a Fostex unit.

The dramatically styled cabinet delivers 96dB sensitivity, presents an easy 8 Ohm load, whilst internal wiring is solid core silver. The metallic blue finish shown is standard, but perhaps recognising that it

might not be everybody's cup of Earl Gray, designer Eric Thomas is quick to point out that other finishes will be available to order. Price is yet to be fixed but will be in the region of £2500. For further information you can contact Beauhorn at:

Tel. (44)(0)1424 813888  
Net. [www.beauhorn.com](http://www.beauhorn.com)

Or visit them (and the B2) at room 3095 of the London Novotel show on the 13-16th September.



## Arguably the best speakers ...

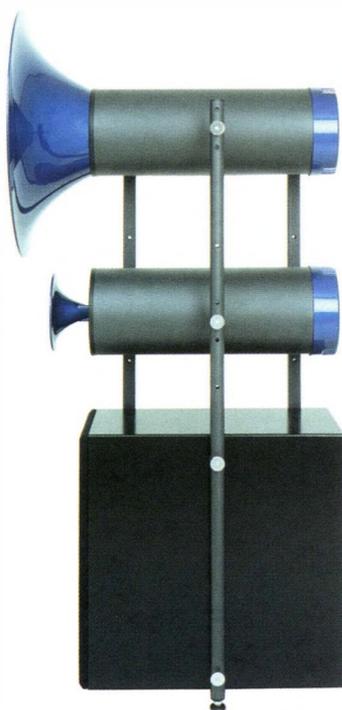
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... and turntables in the world are on permanent demo (subject to booking, please) in our Central London store. In fact, you'll find probably the largest selection anywhere in Britain of vinyl playing equipment and valve amplification, in our tiny, overcrowded (but perfectly formed) shop.

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As you know, specialist hi-fi, especially the turntable, needs careful setting up, and our service is second to none, with many years of experience. And, if it goes wrong, we sort it out for you, very often in our shop, usually whilst you're waiting, with the same enthusiasm as when we sold it to you - ask our competitors if they do that.

Look forward to seeing you soon - Les and Pete.

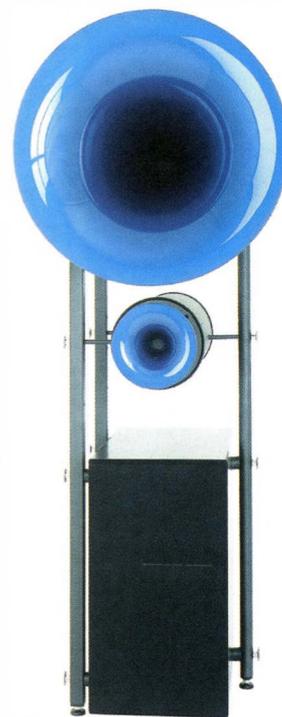


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**Musical Fidelity Nuvista CD - £2999 - Yes, I know we don't get out of bed for digital products normally, but this one is too exceptional to ignore! The Nuvista would be good value at twice the price; it brings to CD the life and vitality more usually associated with Vinyl. Sit back and enjoy!**



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# Incoming!

Please address letters to the Editor at Hi-Fi+, Unit 12 Albany Business Park, Cabot Lane, Poole, Dorset, BH17 7BX.  
or via the web-site at [www.hifiplus.com](http://www.hifiplus.com)

Dear Sir,

I have a subscription to Hi-Fi+ and think that yours is now the best on the market.

In Issue 12 there were two references to *the absolute sound* magazine. Could you kindly give me a contact telephone number and address as W.H. Smiths do not have it listed.

Yours faithfully

**Paul Metson**

Yorkshire

*The absolute sound is one of the oldest and certainly the most influential of all the US magazines. It is published every other month and has done more than any other title to develop and discuss our appreciation of serious hi-fi. It is distributed in the UK by Moth Marketing (01234-741152), or can be found on the web at [www.theabsolutesound.com](http://www.theabsolutesound.com). Ed.*

Dear Sir,

Your magazine was discussed on [www.audioasylum.com](http://www.audioasylum.com) and one guy claimed that you have a policy not to print negative reviews. Is this true?

Regards

**Stefan Vajdemo**

Via e-mail.

*An apparently simple question, but actually a very complex issue. The short answer is no, we have no policy regarding whether or not we print negative reviews, but that depends on what exactly you mean by negative. One of the major issues surrounding any editorial policy is the question of review methodology. There tends to be a belief that any product can be ascribed a score or place on some kind of sliding scale that stretches in a single, unbroken line from 'very good' to 'very bad'. To describe this as simplistic barely does justice to its naivety. Would that things were really that simple. The problem is that almost any product can be both good and bad depending on how it is used and what with. Turntables could be poorly set-up, electronics badly interfaced or used with inappropriate cabling, speakers with inappropriate amplification. In fact, it's often easier to get a bad performance out of a product than a good one, and as a rule of thumb, the*

*more expensive the product the truer that is.*

*In order to get round this problem we adopt a number of policies:*

*i) We try to send products to reviewers with appropriate systems and musical tastes.*

*ii) We invite manufacturers to install products and listen to their views on ancillaries.*

*iii) We spend considerable time and effort optimising the performance of review products. We want to be sure that we've heard it at its best before we try to describe it.*

*iv) Reviewers are directed to describe a product's strengths, weaknesses, the context in which it works best and what sort of system and music it best suits.*

*v) Whilst the reviewer's personal opinion of the product is relevant, what we really want are his judgements as to what it does well and what it does badly.*

*From this you should be able to deduce that our priority in writing reviews is to inform rather than judge in any absolute sense. Hopefully, someone reading one of our reviews should be able to tell whether a product is a sensible choice given his or her system, circumstances and musical tastes. It might encourage them to go and listen for themselves, in which case it should give them an idea of what to watch out for. What it can't do is tell them whether to buy it. There are magazines that do that, but we assume that our readership is well enough informed to want to make their own decisions. Add to that the fact that we only publish every other month and it means that we can only cover a limited range of products. Naturally we tend to concentrate on the ones that we think are interesting and worthwhile, which further increases the generally positive tone of the reviews. Ironically, one of the complaints we get from manufacturers is that our reviews are "insufficiently quotable". I guess that means that we expect our readers to read the whole thing, rather than just the last two lines.*

*Finally, consider this. If the task of a review is to inform a reader as to whether or not they should pursue a given product, then the perfect review should read as a 'good' review to someone it would suit and a 'bad' review to someone it wouldn't. So the same review of the same product would be both good and bad. Ed.*



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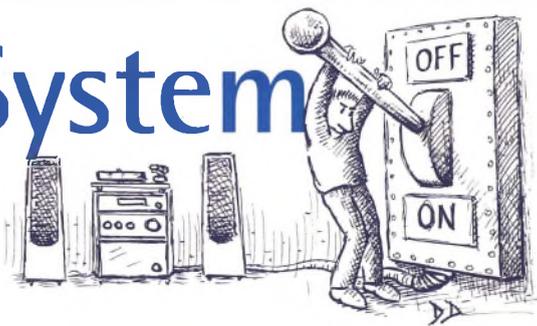
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# Playing The System

by Roy Gregory



I remember, many years ago, someone asking John Atkinson (then editor of *Hi-Fi News*, now at *Stereophile*) why he printed critical letters in the magazine. He replied that a lively letters page is the heart and soul of any magazine, and he is absolutely correct. The letters page is the forum for feedback; the most direct indication of which parts of the job we're getting right, and which wrong. To that end, whilst "Yours is the best mag in the world!" type letters are great to receive, and very welcome, they tend not to be the ones you publish. The ones that grace the pages come from "Outraged of Piddle Hinton" and "Cancel my subscription of Chew Magna". Why? Because those people have a criticism and it gives you the chance to respond, and if enough people feel aggrieved, then it opens a debate. It also offers the opportunity to explain or expand on the magazine's approach and philosophy. Why it is that we do what ever it is that has upset the writer.

Given a recent rash of letters in which people are upset because they feel that our articles or reviews have belittled products that they hold dear, perhaps it's time to muse on the relationship between a magazine and its readership.

When I receive a letter or e-mail that disagrees with our findings, the tone generally sits somewhere between hurt and angry. The offending review is 'wrong' and therefore we shouldn't have printed it. However, I can't agree with this negative cast. I love it when someone writes to tell us that we've got it wrong. Even better if they tell us why. Firstly because we might learn something, and secondly because they care enough to do it. Anybody who writes such a letter has to be confident in their own judgement; confident enough to challenge the views of 'experts'. That's exactly what we're trying to achieve. When it comes to hi-fi there are few absolutes. I'm perfectly happy to agree to differ, especially if the alternative view makes me question my understanding of that product in particular and hi-fi in general. Because, if there is no right and wrong, no 'answer' if you like, then it's opinions, and more importantly, how we reach them that should concern us.

I once had a member of the industry comment that we wrote "Great reviews! It's just a shame that they aren't more quotable". He couldn't understand why I took this as a compliment.

Too many reviews provide a definitive judgement; a best in test or best in group or even just best type conclusion. "This

is the best CD player under \$2000, buy it!" (It probably costs around £300.) Manufacturers love reviews like that. Nice and unequivocal - this is the one, now get your money out. Of course, they only like it if it's one of their products. Hear them squirm and whine if it goes to someone else. And let's not forget that the vast majority of the public love them too. There are a great many people who want to be told what to buy; who love to have their choice confirmed. The problem is that such judgements are actually meaningless. They provide emotional and psychological comfort to purchasers, marketing support and advertising quotes to manufacturers, but no real information. That's why our reviews read the way they do.

When we review a product we try to describe both its strengths and its weaknesses, as well as what you'll need to do to get the best from it, and thus give some kind of indication as to what job it's going to do for whom. Generally speaking we don't bother too much about whether it's a 'good' product or not. You see, shock horror, most products qualify as 'good' as long as you use them properly. We don't actually bother with products that offer suspect performance or reliability (or manufacturer reliability). Hopefully, what we offer is a primer which helps the reader decide whether this product is appropriate to their needs and circumstances. Perhaps they'll then go and listen to it, armed with a few pointers. That is the most a review can hope to achieve. We can offer the raw material for the decision making process: We can't make the decision itself. That's why it's important to read the whole review. That's why I tend to shy away from knockout last line conclusions. They are easy to write, and they make good copy. The trouble is they tend also to be misleading.

And what does all that have to do with people disagreeing with us? At the end of the day, our writers are simply individuals, operating in a limited environment. It might be less limited than the average reader's, benefiting from wider experience, exposure and a greater availability of equipment, but it is still limited. No reviewer can try every conceivable combination of ancillaries with a review product. Believe me, we go to much greater lengths than most and we still only chip the surface. Nor can we guarantee that the equipment that we listen too will sound identical to another piece in another ►

► place. There's all kinds of reasons for that, some sinister, some not. Finally, no matter how hard we try, we can't eliminate prejudice and personal taste from the process. That's why we try to give you background on all the reviewers, the music they listen to and the equipment they use.

The bottom line here is that audio writers are not omnipotent, and there are few hard and fast answers in hi-fi. The problem is that too many readers and manufacturers ignore that fact. "It must be good because J. Arthur Hearing-Trumpet gave it five stars/ 94% /reference status!" For all you know, J. Arthur might act as a consultant to the manufacturer in question, share his church, faith or daughter. Chances are he's perfectly respectable and morally unimpeachable, but that still doesn't qualify him to choose your hi-fi for you.

I think hi-fi is a complex and fascinating subject. Sure, you can go and buy a run-of-the-mill system from a run-of-the-mill shop and you'll get run-of-the-mill performance (if that). But getting the best out of a collection of electronic boxes: turning electrical and mechanical theory into a real, living performance: that takes time, experience and understanding. It also means dealing with more than just equipment. That's why we spend so much time, and some would say a disproportionate amount of money, on 'peripherals' such as cables, equipment racks and the mains. In the future we'll be looking at rooms, and how they effect your hi-fi, as well as anything else that comes to mind. This industry has become

product fixated. If you want to upgrade the performance of your system, or you have a problem with it, then more often than not the solution is presented in the form of an equipment change. Me? I'd rather make sure that I've got the system I own working to the maximum possible level before I think about changing it.

What this means is challenging the existing mindset, and that means playing with ideas, putting them out there to get people to question and consider them. When we write about this system or that system, what this customer or that listener did, it's illustrative rather than judgemental. I might not be able to understand why someone chose the path they did, but that's mainly because it will have been for non-musical or non-hi-fi reasons. Few of us are lucky enough to be able to separate our listening requirements from outside pressures. Sometimes we recognise their influence, sometimes we don't. Customer A might decide on product B. It might be a poor choice in hi-fi terms, but it might be the right choice for his circumstances. Using his experience to illustrate a behavioural tendency is observational, not critical. Like I said, there are few absolutes in hi-fi. So as far as I'm concerned, anything that extends our understanding or makes us question the status quo is fine by me. I don't expect everybody to agree with what we write. I just hope that they think about it. That way they can reach their own conclusions. ►+

# Speakers Corner



by Paul Messenger

This month, I've been mostly listening to a pair of Micro Utopias, from JMLab. They're a bit smaller than I'm used to, especially after the big Tannoy TD12s I reviewed in the last issue of Hi-Fi+. It therefore took several days to adjust to the obvious shifts in balance and perspectives. And while I still believe a good biggun will beat a good littlun, in my (4.3 x 2.6 x 5.5m) room at least, the more time I'm spending with this smallest of the Utopias, the greater my respect is growing.

Three grand is one heck of a lot to spend on a pair of

6.5-inch two-ways, but every time I hear a Utopia on the end of my system, that top-of-the-line Focal tweeter gets right under my skin. (The bass/mid driver is no slouch either!) Maybe it just happens to be a good match for my Naim amps, but the top end always sounds so incisively clean and coherent, I'm immediately seduced.

Compared to UK speaker specialists, JMLab always seems to run its tweeters quite 'hot'. A 6.5-inch main driver, even with reflex-port assistance, is never going to deliver oodles of ►

► bass, so the end result might well be a little too bright and analytical for some tastes. My partner is much less keen on this little speaker than I, for example.

But that's an integral part of the fascination of this speaker, which is certainly one of the most revealing I've come across. By pure coincidence, soon after the Micro Utopia arrived, a large collection of speaker stands turned up for a group test. While it's obviously silly to use a three grand pair of speakers with beer budget stands - JMLab charges £750 for its partnering wood-based, sand-filled 'platforms' - I was nevertheless surprised at how easy it was to hear quite obvious differences even between the more serious and upmarket stands.

I say surprised, because I expected the Micro Utopia to be less stand-sensitive than more mundane designs. JMLab lead-lines its Utopiae, and even this smallest weighs a hefty 20kg. One might fairly expect such a solid and inert enclosure to prove reasonably immune from its support, but that didn't seem to be the case at all.

Pondering this, I suspect it's largely a reflection of how good the speaker is, and how good the rest of our systems have become as they've evolved down the years. It might be fashionable these days to hark back to ancient technologies and decry progress, but in my view the steady progress we've been making across a broad front over the last thirty years is a major reason why we're now better able to appreciate those historic virtues.

That's not to say we've found all the answers yet, but at least we've learnt enough to ask some of the pertinent questions. Speaker stands and connecting cables only became recognised elements of the hi-fi system in the late 1970s, and equipment supports and mains cables are even more recent additions to our pantheon of components.

Why weren't we aware of them before? Probably because the rest of the equipment simply didn't have the resolution to show up the sort of differences which are all too obvious today. And I reckon that we've still got a lot to learn about support furniture in general and speaker stands in particular.

The market stereotypes might have evolved and established themselves long ago. But there are plenty of variations, both in the techniques adopted but even more so in the materials used, and this provides considerable opportunity for system tuning.

The debate between spike- and Blotack-coupling, for example, remains just that - a debate. I'm a spike man myself, but reckon this is one decision that must be down to personal taste and system synergy. Something of the same is true of adding some form of 'fill' to stand columns, to add mass and/or damping. This can assist stability, affect bass 'tuning' and influence colorations, but don't assume it will always bring a net improvement.

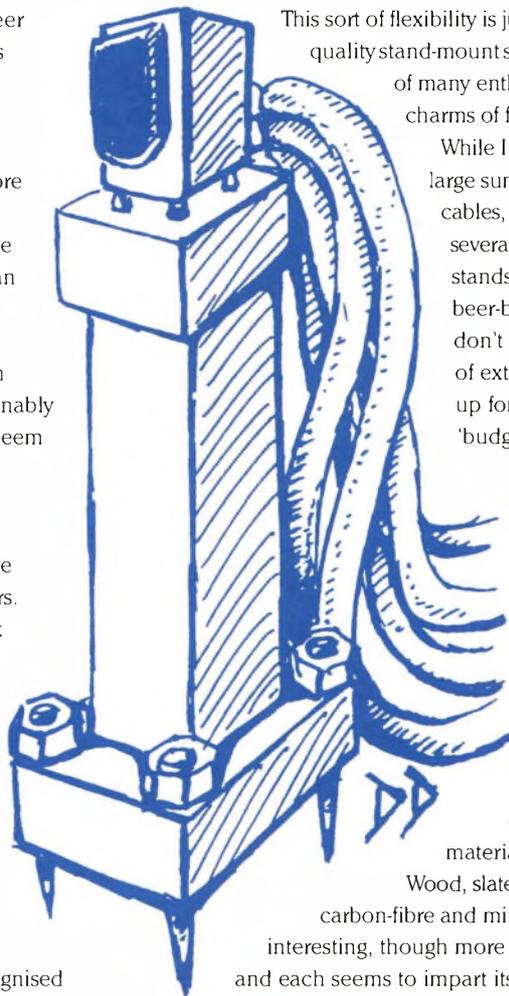
This sort of flexibility is just one reason why good quality stand-mount speakers will remain the choice of many enthusiasts, despite the cosmetic charms of floorstanders.

While I for one am wary of spending large sums of money on speaker cables, I'm much more confident that several hundred pounds on speaker stands is money well spent. The beer-budget flat-packers simply don't cut it for me, and no amount of extra mass 'fill' seems to make up for the basic limitations of 'budget' engineering.

But there are some very well-built and effective steel stands from around £100. Partington's Deadnought comes fully welded, for example, and I've long been a Kudos fan. These set a good starting point for serious performance, but it's fascinating how much the sound character changes when different materials are used.

Wood, slate, granite, glass and carbon-fibre and mineral composites all provide interesting, though more costly alternatives to steel, and each seems to impart its own 'flavour' to the sound. Some like to make rules about the rights and wrongs of different techniques, but since every rule seems to find its exceptions, I'd commend the more empirical 'suck-it-and-see' approach.

Hitherto, the mechanical role of the speaker stand has focused on providing stiffness, stability, mass loading and damping, in isolation or combination. Deliberate decoupling is a more recent alternative that some are advocating. I haven't tried this myself, but the fact that it's causing a stir is further evidence that we're still on a learning curve, and there's probably still room to improve and further refine a component that is all too often undervalued



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# Home Truths



by Jimmy Hughes

In the autumn of 1974 Philips released a 3LP boxed set of records I'd been waiting avidly for; the three great Stravinsky ballets - *Petrushka*, *Rite of Spring*, and *Firebird* - with the London Philharmonic conducted by Bernard Haitink. Sometimes, you look forward to something so intensely, you're almost primed for disappointment - the anticipation is too great. But not this time.

I was truly bowled over by what I heard. The Philips sound was exceptionally clean and well-balanced, with crisp immediate detail and wide dynamic range. Great sonics are vital for music like this, and Philips had captured Haitink's interpretation in state of the art recordings that seemed to sparkle like the proverbial diamond.

A decade or so later CD was born. And slowly the vast back catalogue of analogue recordings began to be reissued. In 1985, Philips launched their first mid-price classical CD label Silver Line, and the initial release featured Haitink's *Rite* and *Petrushka*. I couldn't wait to get a copy. But excitement quickly turned to disappointment - the sound seemed thin and weak, with noticeable tape hiss, and none of the brilliance I recalled.

What had gone wrong? Was it a poor transfer, or was CD simply showing-up limitations in the original analogue tapes? The recording was almost certainly mixed straight to two-track tape, without Dolby noise reduction, so re-mixing wasn't possible. Agreed, by finicky standards the LPs showed slight evidence of tape hiss. But nowhere near as much as there seemed to be on the CD. It was a puzzle.

As the years passed, I'd periodically sample Haitink's *Rite/Petrushka* CD to see if it sounded any better. Indeed, it did. There seemed to be slight gains in detail and tonal body as my system improved. But the CD never approached the LPs heard via a first-class MC pickup. I hoped Philips would one day re-issue the recordings, hopefully in re-mastered transfers that did justice to the sound of the original master tapes.

Well, finally they did - on a new budget label called Eloquence. According to the blurb on the sleeve, the recordings have been processed using a technique

called AMS - Ambient Surround Imaging. This is said to give enhanced playback on multi-channel systems, as well as improving stereo imagery on twin-channel systems, and increasing brilliance and presence.

Sampling the new reissue (Philips 468 186-2) seemed to bear out the claims made. The sound did seem to have added brilliance and presence over what I recall from the original, and the impression was of increased immediacy and detail. Tape noise seemed lower too, and overall the sound was more vivid and three dimensional. But, it's dangerous to listen in isolation; I had to find my old CD to make proper comparisons.

I'd not played the original CD for some years, and was expecting a fairly big difference. In the event it was much smaller than anticipated. The new Eloquence transfer was more detailed and immediate. But the original had its virtues too - a shade smoother and more natural. Whereas the original CD once sounded like a pale imitation of the LPs, it now seemed much closer in terms of tonal body and dynamic range.

Interestingly, I wasn't using a super-duper mega-bucks CD player for these comparisons - just the very affordable £299 Marantz CD-6000 OSE Limited Edition. Naturally, by typical mid '80s standards, it's a very good CD player. But inevitably it's not in the class of something really exotic like (say) the Acoustic Precision Eikos. So what's happening? Had my sixteen-year old CD miraculously matured and improved with age?

Hardly! Rather, my system has steadily improved so that it makes more of the sources fed to it. Now, even an average CD like Haitink's original *Rite/Petrushka* coupling sounds good. You're more aware of what's right with the recording, rather than being made aware of limitations and faults.

Naturally, the quality of the source is important. But, it's not quite as Life and Death as it once was. I know my original Haitink *Rite/Petroushka* CD is technically less good than it might be. The difference is that, now, its limitations no longer ruin one's enjoyment of the music and performance.

Every recording is a mix of good things and bad. ▶

► Satisfying reproduction occurs when a balance is struck between revealing what's right about the sound without emphasising what's wrong. Achieving this balance is vital if you want to enjoy music without technical limitations spoiling your listening pleasure. Play to the strengths of a recording, and its weaknesses seem less significant.

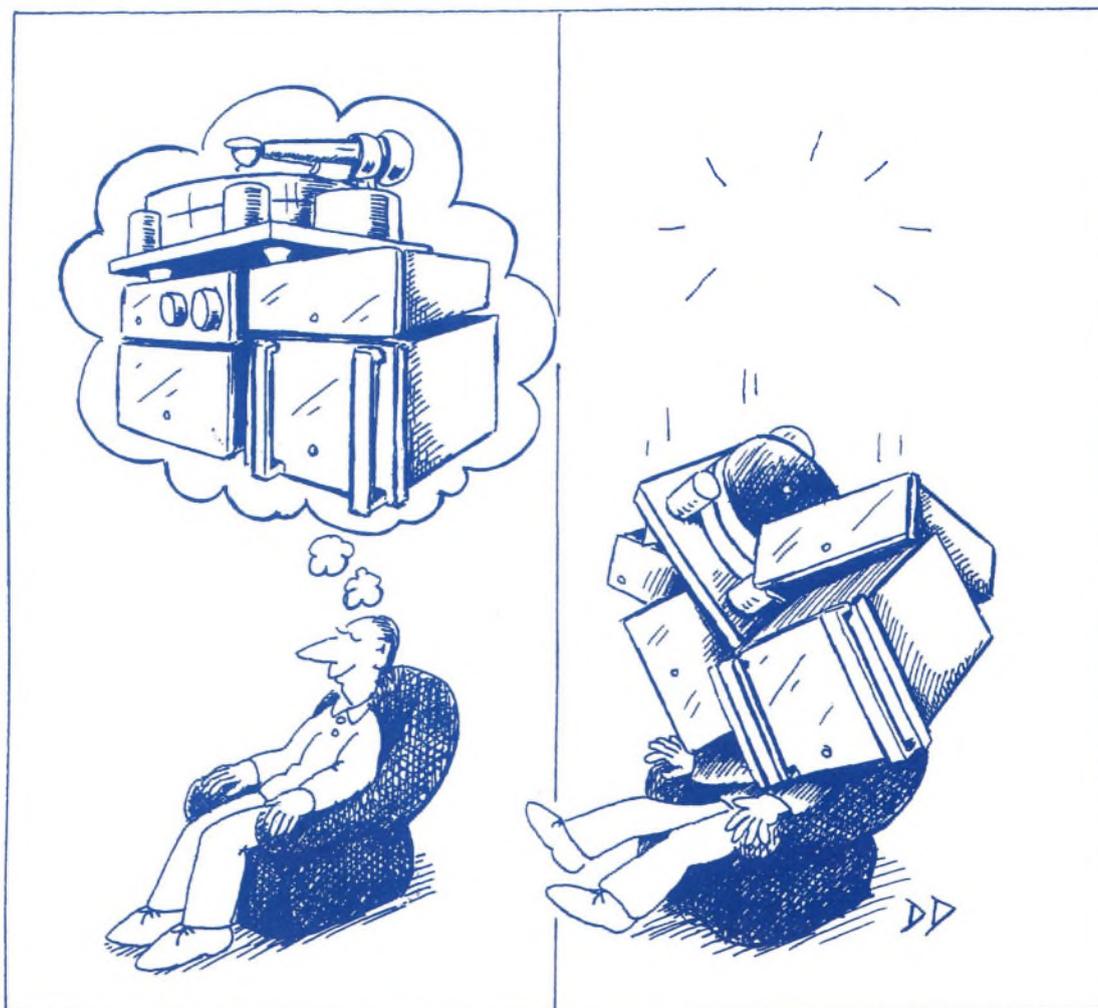
In the days when LP was king, most systems were very dependant on the quality of the source. Linn and Naim's famous demonstration - where they took a cheap system fronted with an LP-12 turntable, and then compared it to their best system fronted by a Rega 3 - fixed in our minds the importance of a good source. The message was clear - a cheap system with a good source will see off a more expensive system with a lesser source.

The argument is a persuasive one. But it's a bit like playing golf with one club - possible, but limited. It ignores the fact that improvements can be had at all stages in the chain, and that a chain is only as strong as its weakest link. Loudspeakers, in particular, are great

limiters of performance. And even quite 'good' designs lose hideous amounts of information.

Looking back at systems I owned, especially those I had before I got my large Impulse H-1 horn speakers in 1989, I feel they were good but far too source dependant. Getting the Impulses was the first step towards emancipation from source quality! Turntables are very tweakable; much more so than CD players. With expert setting-up you could enhance performance significantly, making up for limitations elsewhere in the system.

Systems that are very sensitive to variations in source quality are either exceptionally revealing in a positive sense, or out of balance in terms of being able to reveal strengths without highlighting weaknesses. Balance is the key here - not absolute quality. A 'forgiving' system is not necessarily good or bad - merely one in which positive triumphs over negative. I know what I'd rather have...



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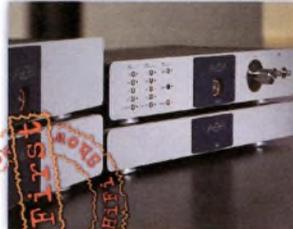
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# Nigella Bytes...

digital theory, numerical book-cooking and the proof of the pudding.

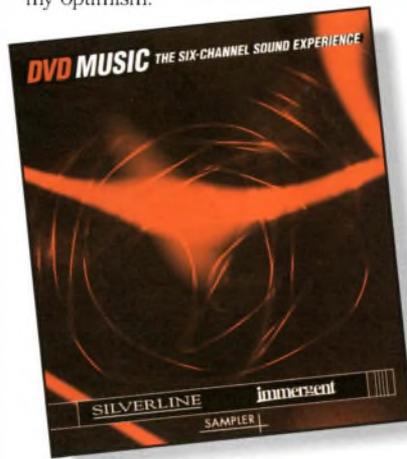
by Roy Gregory

There's no question as to the current hot topic in the hi-fi press: the contest between SACD and DVD-A to become the new audiophile music standard. This is the stuff of banner headlines and 'World Exclusive' reviews (not difficult given the rate at which new machinery is appearing, but more on that later). And the questions that everybody wants answered? Well that's easy: "Which one is going to win the format war?" Closely followed by "Which one sounds best?" The ever sceptical buying public is understandably petrified of buying a pup, whilst at the same time they're fascinated by the new technologies and the potential performance benefits they offer. Once bitten twice shy, and Betamax is still fresh in the collective memory (and if it isn't then the magazines are only too happy to put it there).

Yet, sitting here enjoying the Johanos/Rachmaninov *Symphonic Dances* on the Wadia 861, it's hard to understand what all the fuss is about. Contrary to popular perception, the buying public has never had it so good. Given a modicum of foresight we've reached a can't lose situation. Many of you feel that we've been strangely silent on the subject given the feeding frenzy in other mags. Not so, I say. We've kept abreast of developments. What we haven't done is rushed to judgement, because there's been no basis to make a judgement. Events have proceeded at such a rate that this comparison has now become redundant.

Don't misunderstand me. I'm not saying that the 861 is as good as we need (although good it definitely is!). Nor am I saying that the high-bit format debate is devoid of issues (far from it), but they

are issues that effect the manufacturing and recording industry rather than residents at the bottom of the food chain. So for once the little people get the opportunity to sit back and watch the big guys slug it out. Time then for a reappraisal of where we are at, along with some justification for my optimism.



The central contest, at least as far as sound quality goes, is both complex and critical to the way in which we will continue to record music. Not surprisingly, some aspects favour DVD-A and some SACD, some are technical and some practical, so let's approach them in some sort of order.

## The Theoretical Imperative: PCM versus Delta Sigma

At the heart of any debate between the conflicting technologies is their actual mode of operation. The DVD-A standard is an outgrowth of the existing DVD-V standard, employing the same disc architecture, but loading its data rather differently. It therefore also uses

the familiar multi-bit encoding, but this time at a maximum data rate of 24bit/192kHz (DVD-V offers a maximum of 24bit/96kHz, as used by the likes of Classic Records on their 'DAD' releases). This increase in data rate and hence resolution is central to the whole debate between the two new formats. SACD in contrast, uses bitstream or Delta/Sigma conversion, which works in a completely different fashion, with its own distinct set of advantages and compromises. The difference between the two approaches is critical to understanding their ultimate potential.

In order to describe a constantly changing signal we can adopt one of two methods. We can either calculate its variation from a constant, measuring it at fixed intervals, or (as long as we know the value at which it starts) we can simply record whether it increases or decreases within a set period. The first system, in which we record signal strength, equates to PCM (Pulse Code Modulation) or multi-bit systems. The second, where we record changes in the signal is closer to Delta/Sigma or bitstream systems.

Now, it should be self evident that in a PCM system, the more often you sample, and the more finely graduated your measurement then the finer your resolution. This is at the heart of the numbers race that has characterised multi-bit digital developments ever since the establishment of the original Red Book standard at 16bit/44.1kHz. In many ways this is the most intuitively understood system; the one we find easiest to understand.

In contrast, the one-bit system seems incredibly hit and miss, however that ▶

▶ is actually an illusion. Once again, the secret is sampling rate. As long as you look at the signal often enough (and SACD looks 2,822,400 times a second!), then you can be confident that it can't have changed by more than a discrete amount. In a bitstream system the encoder simply measures whether the signal level has changed up or down (alternate up/down readings indicating no change).

In order to examine the capability of these two competing approaches, we first have to examine the capabilities of the human ear. This is a complex and far from simple matter, involving a combination of bandwidth and dynamic range. However, if we avoid the swamp and take generally accepted figures, then we can work to a dynamic range of around 144dB and a nominal bandwidth of 20Hz to 20kHz. However, there is strong evidence to suggest that whilst we can't hear frequencies higher than 20kHz, we can hear their effects, acting in the audible band. Indeed, we may need to consider the audible influence of frequencies as high as 50 or even 100kHz. Advanced theoretical modelling suggests an information capability for the human ear, in digital terms, of 24 (144 divided by 6dB/bit) x twice the bandwidth, or between 960,000 and a possible maximum of 4,800,000 bits per second.

Do the same sums for digital systems and we come up with figures as follows:

CD (16bit/44.1kHz)	705,600 bps
DVD-V (24bit/96kHz)	2,304,000 bps
DVD-A (24bit/192kHz)	4,608,000 bps
SACD (1bit/2.8224MHz)	2,822,400 bps

Remember - the 24bit/96kHz standard for non-compressed stereo from DVD-V is also the standard that will be used for non-compressed (MLP) 6 channel discrete recordings on DVD-A, hence its importance in the overall scheme of things.

From this it should be clear that any of the new digital formats offers

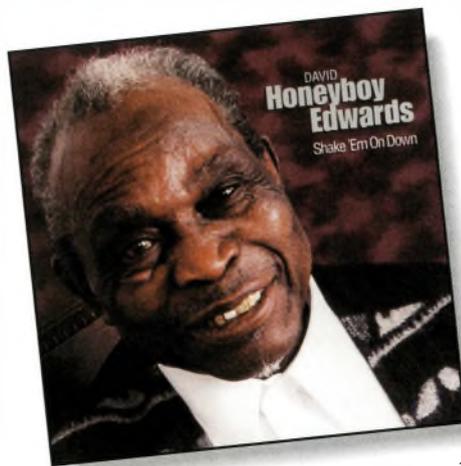
major theoretical advantages over the frankly inadequate data levels of CD, although only DVD-A would be capable of accurately modelling 100kHz information. But that is far from the full story, and achieving full performance from digital systems is not as straightforward as the numbers suggest. Consider the case of the Wadia 861. Excellent player that it is, it represents the culmination of 15 years of refinement on the basic concept. The DVD-A camp are quick to point out the numerical advantages of their contender, however, achieving anything like a true 24bit dynamic range is, in practical terms a major problem.

If we look at the evidence of the more successful CD players, the importance of substantial and above all quiet power supplies becomes self evident. The Tom Evans designed Eikos CD player (which you can read about on pp26) relies for its impressive performance on the ultra quiet Lithos regulators. When Madrigal came to upgrade the No30.5 decoder to 24/96 capability, the first thing they did was provide it with a super sophisticated off-board power supply. Once you get down to the signal levels at the lower limit of a 24bit/144dB dynamic range then even the inherent thermal noise of resistors and other components becomes a serious consideration. The bottom line here is that a 24/192 paper performance is a long, long way from achieving that in real terms, just as few CD players achieve genuine 16bit resolution. So, it's more a question of what you can actually achieve, rather than what the numbers say. In theory, given enough computing

power a PCM system offers superior resolution. Realising that potential is an entirely different kettle of fish.

The second big operational difference between the two systems is the way in which they handle noise. Noise is critical in digital systems because of its nature. In an analogue system the noise is extraneous and separate from the musical signal, which means the ear finds it relatively easy to isolate and ignore. That isn't the case in a digital system. Here the noise consists of the unavoidable discrepancies between

the digital 'staircase' and the smooth analogue signal it represents. Not only does the ear hear this as distortion, but it's distortion that tracks the signal, and is thus especially intrusive. In a PCM system this is handled by the



application of tiny random noise elements known as dither which fool the ear into decoupling and discarding the noise in the same way as it does in an analogue scenario. This is both well understood and has been successfully modelled and implemented. It costs you about 4 or 5dB of dynamic range, but properly dithered PCM signals should be theoretically capable of reproducing all elements of an audible signal as long as you give them sufficient bandwidth and dynamic range. It's just a case of pushing the envelope far enough.

Bitstream systems face a whole different magnitude of noise problem. The very high sampling rate produces a huge amount of high frequency noise that requires extensive noise shaping algorithms to shift it to ultra sonic frequencies. These are, in effect, sophisticated computer operated

▶ feedback loops that compare an existing sample with what went before in order to identify the noise element and shift it out to less problematic frequencies. This is an extremely crude model but it serves to demonstrate the complexity of the bitstream solution. What is more, there is evidence to suggest that it is impossible to properly dither a bitstream system without driving it into overload. Whether this is true or not, it's hard to ignore the conclusion that one bit systems are both more complex and less well understood than their PCM equivalents, at least at a theoretical level. PCM might represent a digital sledge hammer, but at least you can always get a bigger hammer if you need one.

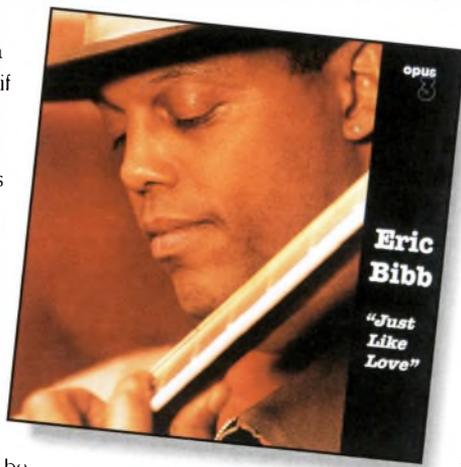
Of course, these arguments are essentially theoretical, and real world performance will depend on how much of that theoretical potential can actually be delivered. Just look at analogue, an obsolete standard of vastly inferior theoretical performance that digital systems are still struggling to beat. Nonetheless, on paper at least, DVD-A certainly seems to enjoy certain key advantages. But SACD has its own tricks up its sleeve, and they are very definitely in the realm of the real, or as real as anything in this format war gets. Perhaps 'Real Politik' would be nearer the mark.

### The Multi-Channel Movement

As well as increased resolution, the other great appeal of the DVD/SACD standards is the increased storage capacity. This massive increase in digital real estate opens the way to much longer discs, or more information on discs of

the existing length, and is a vital element in the move towards multi-channel music and audio-visual provision (See Issue 8, pp110 for a full explanation of this). Then of course, there's also the computer industry and its data storage requirements.

The whole question of the desirability and implications of multi-channel recording are covered in the second part of this article, and I've no wish to steal DA's thunder. However, I will make two peripheral points. Firstly, the advent of multi-channel recording represents a step towards an integrated music/ home-theatre/computer technology and system, and ultimately



digital integrated home automation. Such convergence can only lead to compromise, especially in a quality concerned application. The standards acceptable for the alternative and commercially more important uses will become the accepted norm.

Just look at the problems associated with sourcing high quality CD transports, and with further systems integration this situation can only get worse.

Secondly, a discrete six (or even more) channel system requires at least six channels of amplification and six speakers. Given a fixed budget, there has to be a question mark over whether the advantages of surround sound can outweigh the lower quality ancillaries that it dictates. Look at a nominal amplifier and speaker budget of £3500. Now in a stereo set-up I can suggest several really top notch combinations straight off the top of my head. How about a pair of B&W CDM7 NTs driven by Trichord Alecto mono-blocks, or the Living Voice Avatars driven by a

Monarchy Audio SM70 (or if we factor in the pre-amp as well then what about the Canary Audio CA608 integrated)? These are all combinations that are capable of creating sound quality and musical drama out of all proportion with their price, and each leaves a sensible amount to be spent on speaker cable too.

Put that into a six channel scenario, remembering that we're talking music here, not movies. Well, first you need the obligatory sub-woofer that is going to set you back an absolute minimum of £900. Cheaper units may do it for 5.1 AV set-ups but have no place in a music system. That leaves £2400 and we need to find five identical speakers and amps to match. Don't even think about mix and match systems – we are trying to reproduce hi-fi here. You know, high fidelity. Even if we opt for a quintet of B&W's excellent budget 601 S2s, that only leaves £350 a channel for amplification, and nothing in the kitty for cables. Not a particularly edifying prospect I'd suggest.

### The Gold Standard For Comparison

One of the immediately obvious problems in any attempted comparison between DVD-A and SACD is the lack of any genuinely cross-platform software. Whereas the DVD-A group have made strenuous efforts to get as many record labels to adopt the system as possible, Sony have been content to issue material on their own Sony Music label, allowing other issuers to catch up along the way. What this means is that, as well as a limited range of (mainly re-issued) titles, there's virtually nothing available on both formats.

What's more, if you want to have any kind of true comparison between the competing formats, it is essential to employ recordings that originate in those formats too. I'm sorry, but remastering 16bit originals really isn't going to tell us whether DVD-A's theoretical advantages in resolution

▶ are going to be significant. In practice, the best available material for such purposes are high quality analogue tapes, remastered into both formats available from some of the audiophile labels such as Water Lily.

Even then, things are not as simple as they seem. Sony may have been content in the main to go trawling back through the Columbia archives as far as their own releases on SACD are concerned, but they've been working overtime in the Studio field. Here again we see evidence of the differences in position and approach between Sony and the DVD-A working group. Whereas DVD's major protagonists are either hardware manufacturers or in the case of WEA a record label, Sony have a long history of working with the recording industry, particularly in the areas of digital encoding and mastering, not least the DSD archiving system from which SACD grew. Indeed, they enjoy a virtual monopoly.

So, while the DVD consortium have been struggling with the issues of internal consensus and copy coding, intent on producing a complete and cast iron format, Sony have rushed ahead, getting hardware out into both the professional and domestic fields. Copy coding? No problem, we simply won't include digital outputs on the players. Studios not prepared to invest in unproven technology? We'll just lend them the hardware.

The end result of this is that SACD has stolen a march in terms of both public and professional perception. In fact, Sony's handling of the launch has been masterful, in stark contrast to the confusion and continual delays that have surrounded DVD-A. Subsequently, much of the hype has been revealed as exactly that. The much trumpeted dual-layer capability that would allow SACD discs to play in standard CD machines, whilst it demonstrably exists, is proving to be a commercial irrelevance, with no mainstream dual standard issues to date. Likewise, the

first generation stereo players have been rapidly replaced (and arguably rendered redundant) by the emergence of discrete six channel machines, products which appeared at much the same time as the first six-channel DVD-A players.

However, there have been two very real results of this strategy. On the one hand SACD is perceived to exist, whereas DVD-A, far from benefiting from the association with DVD-V, has started to look to the general public like an unnecessary extravagance. That can, and almost certainly will change, but the second implication is rather more concrete. With any new technology, its practitioners face a steep learning curve (have you listened to any really early CDs recently?). The fact that Sony have been busily thrusting SACD recording hardware into the hands of engineers means that they have developed a body of familiarity and expertise within the recording and remastering industries. The end result is that currently, SACD releases tend to sound better than DVD-V ones. That's not an indicator as to which is the best system. It simply shows which one the engineers are getting the best results from at present. DVD-A could, and should, catch up, but in the public's rush to judgement, fuelled by magazine 'comparisons', will it be fast enough?

The conclusions to all this? On paper at least, DVD-A seems to offer theoretical benefits, however, unless these can be realised in practice, all that theory will basically represent an interesting case of smoke and mirrors. Meanwhile, SACD enjoys certain practical and marketing advantages, which under closer examination begin to look like, you guessed it, a clever case of smoke and mirrors! Which leaves us with a very simple bottom line: There's no way to make any kind of definitive judgement as to the relative merits of these two competing formats. But for once, we are in the luxurious position of not having to worry about it. Let me explain.

There's going to be no quick

#### Technological Maturity

The fact that Sony have had DSD and subsequently SACD in the professional arena for so much longer than DVD-A gives them a significant advantage in terms of the sound of their initial recordings and re-issues. You only have to look at the history of CD to appreciate the extent to which this is true. The simple fact is that both CDs and CD players are continuing to improve, and the rate of improvement shows little sign of slowing. Fifteen years after its launch, we are still working to realise the full potential of this, the oldest digital format. Go back to the information capability chart and you'll notice that CD's comparatively modest 705,600 bps data rate depends on it achieving 16bit dynamic range. The problem is that most CD players don't get close to this, measuring out at nearer 13 or 14 bits. And I'm not just talking about dodgy ghetto blasters either. 13 bits would drop the data rate to 573,300! Even the Eikos, with its incredibly quiet Lithos regulators is only just achieving 16bits. So, whilst the lessons learnt with CD can be applied to later digital formats (and we are already seeing second generation DVD-V based audio players like the Muse and whatever replaces the Eikos) learning how to exploit anything like the full performance potential of these new systems will take considerable time and effort. It's this that makes SACD's head start so significant.

resolution in this particular format war. Ultimately the decision will rest with market forces, but the complexity of the multi-format issues, the involvement of the computer industry and the problems presented by the retail industry's resistance to multiple inventory will all contribute to the confusion. However, we can say some things with certainty:

- Will either SACD or DVD-A supercede CD?

Categorically no! CD will be around for a while yet and when it does eventually go, the default standard will become DVD-V, probably offering ▶

▶ either stereo at 24/96, or Dolby 5.1 surround. Of course, DVD-V machines will continue to replay existing CDs, so you need have absolutely no qualms about playing your existing discs, or indeed, about adding to your collection.

- What position will SACD or DVD-A eventually occupy?

Whichever format emerges as the eventual winner, it will co-exist with DVD-V, offering a superior standard of performance (rather like the 180g LP). Consequently it will only succeed if it is demonstrably superior to the 24/96 stereo capability of DVD-V. We'll start to look at that question in the next issue, but it will be interesting to see whether the DVD association works for or against DVD-A. After all, SACD is at least obviously different.

- So why don't I need to worry?

The issues outlined above are significant, especially as regards the future of recorded music. However, the question as to which is the superior format is largely irrelevant in the great scheme of things. Which (if either) format finally emerges will be decided by entirely different factors, partly of course, because we simply don't know which is the superior standard!

Enter then the first generation of multi-standard players. In exactly the same way as the first generation stereo SACD machines have been enveloped in the subsequent release of discrete six channel players, Pioneer now have a multi-format player which will replay everything (CD, DVD-V, SACD and DVD-A) due for release in Japan later this year. Given the option of a universal

machine why even consider a more limited alternative? That's the way it's going to go, so you can be confident that whatever disc you buy, you'll be able to replay it for the foreseeable future. For once, it seems that it won't be us poor punters who carry the can for corporate competition.

### Suggested Reading

Much of the technical information in this article is covered in greater detail in an excellent piece by Robert E. Greene, writing in Issue 130 of the absolute sound magazine ([www.theabsolutesound.com](http://www.theabsolutesound.com)), available in the UK through Moth Marketing (44)(0)1234-741152. The whole question of data rates and DVD disc architecture is covered, as mentioned, in Issue 8 of Hi-Fi Plus. ▶+

# And Noah Said...

## or, is more necessarily better?

by David Ayers

There is no doubt that surround sound, or more precisely discrete multi-channel sound, is the current hot favourite to re-awaken interest in hi-fi and save the industry. Whether the industry actually needs rescuing is a moot point, but there are many that feel it does and that multi-channel is the Holy Grail. Certainly home cinema has re-awakened the interest of the 'boys and their toys' brigade in buying sound systems, albeit not for music but for film. That the same system will also play their CDs is seen as an added bonus, and if their DVD player can also play the same music in multi-channel, even better. You only have to

read a few of the current crop of Home Cinema and DVD related magazines to see that they are firmly aimed at the 'lads' end of the market, although to be fair some of them do actually point out that there can be more to Home Cinema sound than the crash, bang, wallop of Arnie's latest action flick.

Just so you know where I'm coming from, I have a fairly modest home cinema system comprising a Pioneer Laserdisc / DVD combi player, a Pioneer processor / amplifier, and Ruark speakers including subwoofer. Top this off with a 55inch back projection TV, and you have a system that creates

a very satisfactory home cinema experience for considerably less than the price of my vinyl front end. The problems arise if I try to use the system for music rather than film. Although CD reproduction is quite pleasant (thankfully, as I sometimes use the system for background music when I have visitors), I know that had I spent the same amount of money on a CD only stereo system I could have achieved a much more musical result. Using DVD-V, with its Dolby Digital soundtrack, provides a much less friendly result from music only discs.

However I'm quite lucky, because ▶

▶ I have the luxury of being able to house my home cinema and my stereo systems in different rooms, and so I'm not reliant on the cinema system to play music. With the advent of high quality multi-channel music carriers (DVD-A and SACD) I find myself facing a decision about which way to go with my main music system, and like it or not it is a decision that is facing anyone who is thinking of investing in their current set-up.



How do you decide whether to further improve your stereo system or whether to go multi-channel?

I believe that the answer to this question is dependent on a great number of factors and how important they are to you personally. The rest of this article discusses the basic pros and cons of a music based multi-channel system in the hope that it will illuminate your choices.

The first thing to ask yourself is 'Do I want a multi-channel music system?' This may seem obvious, but we are all susceptible to a greater or lesser degree to persuasion, and this can take many forms, the most direct being advertising. Fortunately hi-fi advertising normal-

ly ranges from the purely informative ('Here we are and we do this') to the outright bullish ('Here we are and we do this brilliantly'), which is the bright side of advertising. But even within these parameters if every-one is shouting about their latest centre speaker /multi-channel amp / DVD-A or SACD player it creates its own market force, a zeitgeist which can sweep people along. The fashion

industry has been doing this for donkey's years. Just sit back for a minute and consider whether multi-channel is something you want or something that someone else wants you to have.

The next important thing to consider is: do you have or do you intend to get a home cinema

system? And if so,

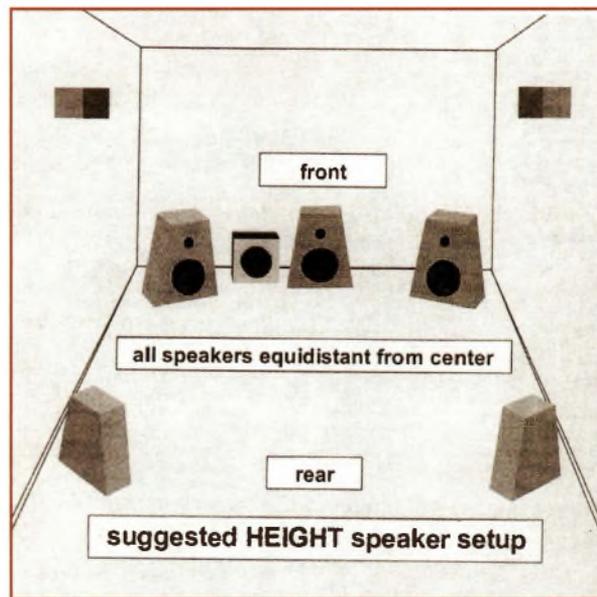
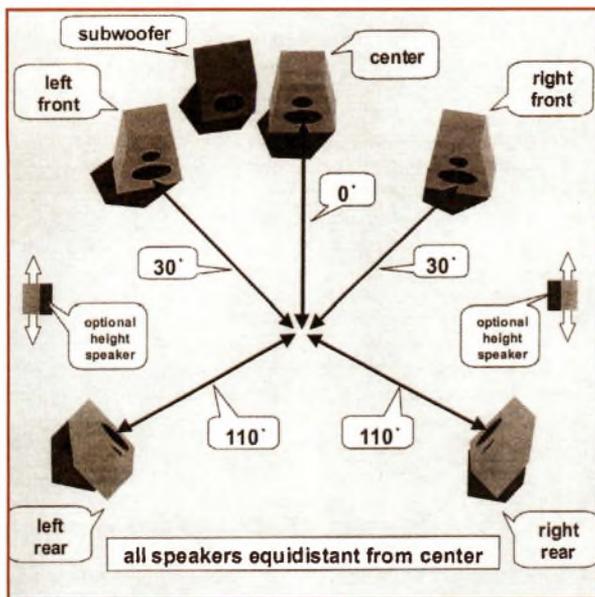
does it have to live in the same room as the music system? This question may be an anathema to a large number of our readers, but it cannot be ignored. If you want the full Dolby Digital / DTS home cinema sound set up as well as a real hi-fi and you only have one living room, then there is really no choice but to try and combine the two. There are different requirements between the two media, however, and you won't be able to have a THX system, as this demands dipole rear speakers, which are unsuitable for music multi-channel. If you intend to put all the speakers in place for the home cinema, then there is a certain element of 'why the hell not' in adding a multi-channel music source such as

#### Multi-Mono?

Ironically, one of the more interesting possibilities offered by multi-channel systems is the correct playback of historical material. Obviously, the provision of a true centre channel allows the proper replay of mono material without the compromise of using two amp and speaker chains. What is less obvious is the number of early stereo releases that were recorded to three-channel! Decca, RCA and Mercury all used this technique in the early days of stereo when, you guessed it, standards still had to be agreed. Indeed, there are sound reasons to suppose that three-channel is sonically superior to two, if domestically less acceptable. Perhaps we've been doing it wrong all these years. Three-channel anyone?

SACD or DVD-A. This is where SACD will have to be careful, as in the budget area most undiscerning buyers will be looking to combine their CD/ DVD-V/ and multi-channel music carrier into a single player. So if SACD players do not play DVD-V, and DVD-A players do, then sadly SACD will very quickly wither away and die. Hence the importance of multi-format players which play everything.

Do you have the room for multi-channel music? For the best multi-channel music you should be using identical amps and speakers for all channels (except the subwoofer), and if you are currently using large floorstanders, then you need to find the room for at least another three of them. In addition, these speakers should be equidistant from the listening position, need to be able to fire over the rear of your furniture, and need to be connected to the amps by identical cable lengths, despite the almost inevitably doors. There are compromises of course, such as using delay lines to mimic equidistant positioning, and using similarly voiced but smaller speakers for the rears and raising them above ▶



The Sony/Telare suggested arrangement for 6 channel SACD replay. Note the five identical and equidistant main speakers and optional "height" speakers. The spartan appearance of the room is closer to reality than most hi-bit manufacturers would have you believe, at least if quality is an issue.

► the furniture, but all of these will affect the sound quality. On top of that, if you are using the system for home cinema, a large floor standing centre speaker tends to make the TV somewhat difficult to see. These comments are based around a speaker placement that mimics the 5.1 placement of home cinema, but not only has 5.1 been extended to 7.1, there is also no current standard for placement of speakers for multi-channel music. This situation may allow the software producers flexibility about how they use the 6 channels available to them, but to us it means we need around 12 speakers in the living room (plus the amps to drive them) to cover all the possibilities. Hmm.

Do you have the software? In my case I have over 1,000 LPs and nearly the same number of CDs in my collection, of which maybe 10 were once mixed for the old 1970's quad system. This represents 30 years of collecting, how long will it be before even 50% of my collection is in multi-channel. Bring into this the cost of going multi-channel, which Roy has discussed in his piece and I am looking at almost tripling my investment in

my system without any benefit to my existing music collection. If you are just starting out on the hi-fi trail, then of course the balance of stereo to multi-channel in your future collection is likely to be completely different. On the other hand, if you stick with two channels but buy a multi-channel non-hybrid disc, then you are reliant on the player's ability to down-mix correctly to stereo for your enjoyment. That this will be done well is by no means certain, and the only true way to hear the disc as intended is to use a multi-channel system.

Do you want to hear the music as the artist intended? This is akin to asking if you worry about 'ping-pong' stereo effects on contemporary music. If the answer is yes, then you can be assured that the problem will be worse with multi-channel. I anticipate that few classical releases will attempt to seat the listener in the second row of the violins, but with other genres the artists and producers will be tempted to use the extra channels for more than 'mere' ambience. Some will be done tastefully, and some will be

shouting 'Listen to those rears!' but in both cases, with new releases, it is how the soundstage is meant to be heard (whether you like it or not). In the case of older material, unless it was made for the earlier multi-channel systems, it will be an after-the-event remix, and as such is of dubious worth, rather like the colourising of black and white movies.

For multi-channel music reproduction to be worthwhile the benefits will need to overcome the compromises. In my case, ignoring the sheer cost, there is no way I could permanently shoehorn a multi-channel system equivalent to my stereo system into my listening room. I have been known to suffer from the 'boys with toys' syndrome, but I can opt to use the home cinema system for any multi-channel software if I want, albeit with a drop in quality. The main thing, as ever in hi-fi, as long as you've dispassionately asked yourself the right questions and come to a decision, don't worry about it. Trust your judgement. After all it's your ear's, your living room, your priorities, and your wallet. ►+



# Acoustic Precision Eikos CD Player

by Jimmy Hughes

It must be tough for those in the market for a state-of-the-art CD player, given the promise of bigger, better formats in the offing, like SACD and DVD-A. Do you buy something now, or wait till things stabilise and software availability improves? Now suppose (wishful thinking) I had £3.5k to spend on a digital front end; wouldn't I want something as near future-proof as possible?

Probably I would. But I'd not overlook the fact that, with a sizeable existing collection, my priority is CD. After all, there's no guarantee that the wealth of music available on CD will ever be duplicated on a rival system. And CDs are so cheap if you shop carefully... If I could find a CD player that got close to the sonic performance of a Super CD, wouldn't that be enough?

In the Acoustic Precision Eikos we have possibly the last great CD player. It's based on a Pioneer 904 chassis, extensively modified and improved to fully realise the inherent potential of CD. There are over 200 component changes, and the player is furnished with an extra outboard power supply that augments the one inside - so there are two mains leads.

Designer Tom Evans has looked at every aspect of performance, from unwanted jitter in the digital circuits to the elimination of power supply noise. It's his belief that what limits CD is not its 16bit/44.1kHz specification, but the way the circuits perform and interface. The Eikos is his Statement; it's the best he can produce, given the

present state of the art.

He also maintains that the numerous aspects of design that limit the performance of CD players (the things he's addressed in the Eikos) afflict DVD-A and SACD players. So, although the specification might be better, performance is ultimately shackled by poor power supply design, noisy regulators, inaccurate clock design, etc, etc.

Naturally, the anticipation one feels when un-boxing a player like this is almost palpable.



What will it sound like? Will it prove to be leaps and bounds ahead of ordinary players - or merely better in a few subtle ways that only a fanatic might appreciate? Only time would tell - but I strongly hoped it would be the former.

Actually, it turned out to be a bit of both. No question, the Eikos is an outstandingly good player, yet it's unexaggerated naturalness is almost deceptive. Those hoping for sonic fireworks may be disappointed. There's nothing overt or explicit about the way it makes music. It's just wholly natural and very believable.

Perhaps the first thing one notices about the Eikos is its exquisite subtlety and delicacy. CD tends to paint in primary colours, and often the finer shades and tints are lost in a welter of strong bold outlines and sharply defined leading edges. The Eikos has a smooth and open tonal balance, seeming neither bright or warm, yet showing plenty of contrast between extremes.

Dimensionality! Now there's a word I'd not typically use to describe CD. Indeed, quite the opposite. CD, for all its superficial sharpness and brilliance, can often sound curiously 'flat' and lacking in any sense of three dimensionality. Whereas a good LP on a first-class turntable can effortlessly fill a room with music at moderate volume levels, CD needs to be played loudly to create a comparable sense of presence.

The Eikos has dimensionality. In spades. It creates a vivid three-dimensional soundstage without needing to be played loudly, and offers impressive presence at low dynamic levels. At the same time, loud passages sound comfortable and full-bodied, without the unpleasant 'shouty' hectoring quality one sometimes gets with CD. There's an effortless ease that reminds one of good analogue.

Superficially, you might almost say the sound was understated. But when dynamics really are wide the Eikos packs plenty of punch. It's just that it's not glaringly obvious - largely because the tonal balance is so smooth and refined. A real iron fist in a velvet glove! As a result, the ►

▶ Eikos is very listenable. It's an easy player to forget - so natural is the sound.

Now it just so happened that the first CD I played was Frank Sinatra's classic album *Songs For Swinging Lovers* - a mono recording from the mid '50s. I'd been playing it on a Marantz CD-6000SE Limited Edition, and the sound had seemed good. Except that, being a mono recording, there was a distinct lack of left-right spread and a certain dynamic flatness. The soundstage was small and cramped, without the internal separation one gets with the LP on a good MC cartridge. In short, the recording sounded its years.

On the Eikos it was transformed. For a split second I was half-convinced the recording was stereo - not because any left-right information suddenly became apparent, but because the music was at once miraculously liberated from the speaker boxes. The orchestra and Frank's voice were now being projected out of the speakers into the room, creating an impression of depth and space that had only been hinted at before.

I could also hear subtle differences between the tracks - as though the recording had been made in several venues, large and small, with the singer at different distances from the microphone. Before, the sound had been good but tonally and dynamically rather uniform; now it was much more alive and subtly varied, and it felt as though one could hear the music far more clearly.

Because of the way the Eikos grades dynamics, it's sometimes difficult to get volume levels set correctly when making A/B comparisons between other machines. The Eikos can subjectively sound both louder and

quieter depending on the music, whereas other players tend to iron-out extremes of loud and soft, giving a more uniform result.

Playing a recent DG CD of the Faure and Durufle *Requiems* with Myung Whun Chung (459 365-2), really highlighted this. The way the Eikos coped with extremes of loud and soft and high and low was mightily impressive. Previously, this CD reproduced unevenly - quiet choral passages sounded recessed and muddy, while the loud sections were almost overbearing. Because of this, it was difficult to set the volume to a level that would happily encompass both extremes.

At low dynamic levels, the Eikos sounded hushed but focussed, with excellent tonal body and a proper sense of all the overtones that give the ear clues about space

and ambience.

Whereas before the choir sounded a long way away when the music was quiet (recessed), now one got a better impression of a large body of singers singing very quietly.

When dynamics expanded, the sound retained its smoothness and focus, avoiding any hint of tonal hardness. In Durufle's *Requiem*, the great climax in the Sanctus almost

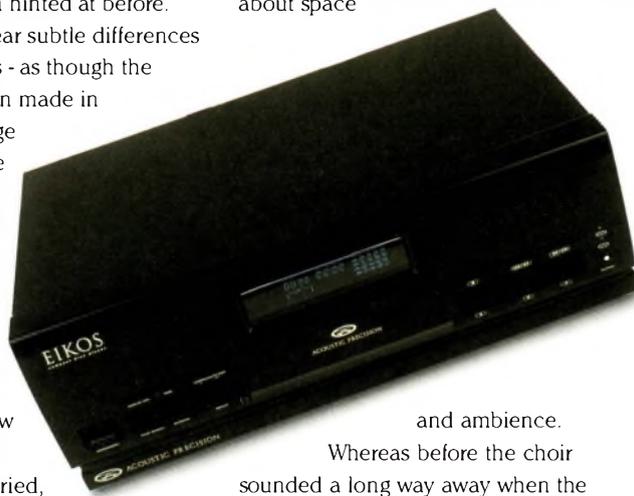
took me by surprise - the sudden expansion of choral tone bolstered by drums really blazed forth, lighting up the room with sound.

Which brings me to another aspect of the Eikos' sonic armoury; its lightning-fast transient performance. Transients not only have an impressively sharp

abrupt quality, more importantly the attack and decay is clean - as though there's little or no overshoot. This, coupled with an inherently smooth tonal balance, gives the Eikos its special magic. It can sound soothing and warm-toned one minute, then tack sharp the next. You never quite know what to expect.

Most audio components have a sonic signature; they colour the sound in a particular way. No doubt the Eikos does too. But, if there is a signature, it's a difficult one to pin down. You could easily categorise the Eikos as a lush warm-sounding player on one track, only to be taken aback by its tactile brilliance on the next. The ability to recreate wide contrasts convinces me the Eikos is doing a good job.

Now, I class my current system - Impulse H-1 speakers, EAR-859 integrated valve amplifier, plus various in-line accoutrements like Musical Fidelity's X10-D and a couple of line matching transformers - as being relatively independent of ▶



▶ source quality. By which I mean you don't have to use the best CD player on the planet to achieve a good listenable sound.

Nevertheless, using the Eikos highlighted all the things missing from my regular CD front end. The difference isn't catastrophic, and hopefully when the time comes I'll be able to go back to the Marantz and accept it without too many tears. But, having experienced the Eikos, I know what's missing. I'd love to have had a player like this (say) fifteen years ago, when my then system was more source dependant than it is now - just to see what it would have done.

Although it's a tweaked standard player, the various tweakings are so far reaching there's barely anything of the original machine is left. The Pioneer 904 chassis used is all but transformed electronically, mechanically, and cosmetically. A completely new front plate and heavy base are used, making the player look taller and deeper than a typical Pioneer player.

Because it uses a Stable Platter, the disc itself rests on a turntable, is played upside down, and read from above. The transport handles well, and disc access is fast. The new high-gloss front panel gives more than a hint of the so-called Urushi finish found on many high-calibre Japanese components. The Eikos doesn't look like a tweaked Pioneer, but a fully fledged player in its own right.

Obviously, the price is high. But not excessively so given the level of performance offered. It seems equally well suited to all kinds of music, if perhaps with a slight bias to simply-miked classical music because you can hear all the subtlety and finesse other players iron

out. Perhaps those wanting a crisp lucid in-your-face balance may find the sound too refined. But, as I've tried to explain, its smoothness is deceptive.

It just so happened that, near the start of my



time with the Eikos, I was sent an outstanding moving coil pickup cartridge to review. Again, it had dimensionality - the ability to create the sonic impression of a three-dimensional soundstage - and served to highlight the limitations of the Marantz player I'd been using. There's still a special something about analogue at its best, and the Eikos (good as it is) didn't quite equal the magic of the turntable.

But it was a close-fought duel, and at times there was surprisingly little to choose between the two mediums. Vinyl was still that little bit easier and more subtly shaded, but CD (Eikos) scored in terms of sheer focus and a blissfully silent background. Playing the Philips reissue of Bernard Haitink's classic London Philharmonic performances of Stravinsky's *Rite of Spring and Petrushka* (see my Home Truths page), the Eikos finally recreated these early '70s recordings with the tonal body and weight that the LPs had. *Petrushka* was

especially impressive.

Whether or not such an outlay is worthwhile on a machine that only plays CDs is very much a matter of personal choice. But I'd wager that, most people hearing CD reproduced on a player like this, would probably not feel the need for anything better. The question then is - would a DVD-A or SACD player make a comparably good job of reproducing CD as the Eikos. My guess is - almost certainly not.

So, hats off then to what could possibly be the last great CD player. The player that, as CD reaches the September of its years, finally demonstrates something like the full potential of the medium. I'm just glad I heard it. At its best, I've felt like I've been hearing my discs for the first time ever... 

\* When JMH described the Eikos as the last great CD player, he didn't know how right he was. Existing stocks are now down into single figures! But don't despair. Any Pioneer PDS904 can be elevated to Eikos spec, and Tom Evans is currently working on a DVD based replacement. Ed



#### TECHNICAL SPECIFICATIONS

Type:	CD Player
Transport:	Pioneer Stable Platter
DAC:	Pioneer Pulseflow D/A Legato Link S filter
Outputs:	1pr Phono (analogue) 1 Phono (digital)
Output Level:	2v
Dimensions (WxHxD):	418x140x280mm
Weight:	8.65 Kg
Finish:	Piano Black
Price:	£3500

Manufacturer:  
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# Purity of Purpose...

## The Beauhorn Speakers and Pure Music Amplifiers

by Roy Gregory

There are systems and there are systems. There are big systems, small systems, systems that offer a unique approach and systems that simply follow the crowd. But in order to succeed they'll all have one thing in common: They'll all offer a whole that's greater than the sum of the parts. That's what defines a system.

Most systems are constructed from a group of individual components, housed in discrete boxes that allow them to be applied in a different situation or context. Indeed, regardless of how dedicated a company is to its own system concept, it still goes to great pains to make its individual products universal in nature. Even products from companies like Mark Levinson and Naim, individual parts of highly developed wholes, can be used with other components should a buyer so wish. Sure you sacrifice some elements of controllability and the predictability of the interface, but this universal ability is seen as vital, even if in practice it is seldom used.

Imagine then, a system freed of such considerations. What benefits would accrue from the designer knowing exactly what each component's operating conditions would be: the electrical characteristics of the speaker incorporated into an amplifier designed specifically for it; no more cables or inputs than absolutely required. In fact, once you define not just the componentry but the situation (or a limited range of situations) in which

it will be used, you can really start to hone the elements of the system for maximum effect. No more power than absolutely required, no more inputs, cables or facilities, no more remote control if you don't want it. In fact, nothing over and above what is absolutely necessary.

To use a car analogy of the kind so beloved of audio writers everywhere, let's think of a system in terms of open topped sports cars. Within that category you could buy a top of the range Ferrari, a Mercedes SLK or a Lotus Elise. All are open topped, all are sports cars but there the similarity ends. The Ferrari attempts to combine unsurpassed performance with comfort and facilities of the highest standard (for which we could read Mark Levinson Reference

System, although maybe Porsche would be more appropriate). The Mercedes offers most of what the Ferrari does, but to a slightly lower level and at a much lower price, combined with a rather less demanding driving experience. More the comfortable all-rounder. Which brings us to the Elise. Made of plastic it is little more than a road going racing car. There are no allowances made to comfort or practicality, and precious few to safety. If you are travelling behind a car with a high rear sill (let alone a 4x4) they won't even know that you're there, unless you stick your arm in the air and wave. There's a rudimentary lid and no room for luggage. What there is though, is a performance that, within its envelope (which certainly encompasses anything remotely legal on British roads) will challenge the very best and most expensive competitors. Give it a twisty road across the Peak District and it'll leave the Mercedes for dead and give the Ferrari a good run for its money. It can't beat the Ferrari for straight line speed or brute acceleration; it can't beat the Mercedes for comfort or facilities. But for sheer A to B performance it is in a class of its own, especially considering that it's the cheapest option of the three.

What we have here is just such a system. The hi-fi equivalent to a Lotus Elise. A system which dispenses with all considerations other than the particular elements of the complex musical performance envelope that its designers consider critical. This is a far from run-of-the-mill set-up, as you might

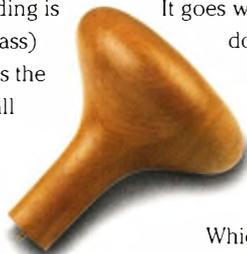


▶ expect, but it goes rather further than that. It's not a system that you can hear at your local dealer's showroom, or indeed buy in the accepted way that most of us purchase our equipment. Which begs the question, why review it at all? The answer to that is simple. Firstly, just because the approach is different it doesn't mean that we should ignore it. Secondly, the results are definitely worthy of attention.

I first heard this system at hi-fi shows, where Beauhorn were using it to demonstrate their loudspeakers. The speakers are, of course, the familiar ones that PM reviewed in Issue 7. It's the electronics that really caught my eye. That and the overall performance, which led to that review in the first place. Further inquiries revealed that the Pure Music amplifiers are a bespoke design, built to customer order and requirements only. They have been tailored to match the Beauhorn, but have been used with equal success in other system situations. What we actually have here is the system that has belonged to Eric Thomas of Beauhorn for some five years, designed to fit his listening room, set-up and furniture.

Despite being one of the better known horn designs on the market, the Beauhorns aren't exactly the sort of thing that you expect to find lurking in the corner of your local hi-fi emporium (unless you're extremely fortunate in your local retailers, that is). So, for those who've missed them along the way, perhaps a brief resume is in order.

The Beauhorn is a three-way, single driver speaker based around a Lowther DX4 drive unit. The horn loading is provided by a rear, folded (bass) cavity, the flare that surrounds the front facing driver, and a small paper parasite cone tucked away behind the bulbous cherry phase plug which is undoubtedly the speaker's most prominent feature, once seen seldom forgotten. This is a fairly conventional approach to



### "Foundations guv, and a damp course..."

Possibly worried that I might suffer terminal bass withdrawal, the boys brought a subwoofer with them when they came to install the system.

A modestly priced Visaton unit with a ten inch paper coned driver, built in amp and fortuitously matching veneer finish, it does indeed provide a degree of additional grunt as well as rooting the soundstage rather more effectively. But try as I might I had problems achieving a seamless integration with the rest of the range, its contribution always seeming like a bit of an afterthought. Part of that could have been down to the absence of a phase switch on the sub-woofer, but it was also down to the fact that I didn't pursue perfection as diligently as I might have done.

Why not? The simple answer is that I didn't feel the need. I found the speakers sufficiently

tactile and engaging au naturelle that I really didn't miss the low frequencies. Now I like a nice bit of bass as much as the next guy, but the operative here is nice. I'm much more interested in quality than sheer presence (which is one of my big beefs with the vast majority of multi-channel systems). I'm not saying that you shouldn't use a subwoofer with a horn speaker, indeed I am familiar with several such systems that use the combination to great effect. However there's a lot more to it than simply buying the first sub you come across. The speed of horn systems means that any sub you use will probably be either small or expensive. As the sensitivity of the main system increases make that either very small (and thus of dubious value) or very expensive. I get the feeling that the search for a perfect sub-woofer to match the Beauhorns could be a long and rather more expensive odyssey than you might anticipate, full of hidden extras and a lot of indrawn breaths and shaken heads.

building a Lowther based speaker, but as we shall see, that doesn't make it any easier. Indeed, the cost/benefit balance is both well known and extreme. Get it wrong and the results can be pretty dire.

The great benefit of the Lowther approach is high efficiency, derived both from the horn loading and from the single driver that obviates the requirement for an energy sapping cross-over. In the case of the Beauhorn that means somewhere around 105 dB! So far so good: The problems which the designer has to handle are part sonic and part practical. Horn loaded speakers are necessarily large.

It goes with the territory. The domestically friendly horn hasn't, and never will be designed, and hybrids are even more problematic than their ribbon or electrostatic counter-parts.

Which means that for all its considerable bulk, and the Beauhorn is an imposing beast, this is a far from wide bandwidth device. In fact, when

PM reviewed this speaker he found that the bass extended little below 100 Hz before dying fairly rapidly in his room. I don't have Paul's measuring facility but I'd guess I'm doing a bit better than that – probably nearer 70 Hz after careful juggling of position and toe-in. Of course, part of that could be down to the quality rather than the quantity of the bass, the way that horn speakers actually drive the room, but anyway you cut it, the Beauhorn is deprived of bass fundamentals, or should that be fundamentally deprived. Think of this as an LS3/5a and you'll get the picture. Whether or not that's a problem will depend on the individual, the system and your musical perceptions, but more of that later.

Critics of Lowther drivers are fond of mentioning a "papery" quality to their sound, a complaint which I have to say is not entirely without substance, a fact reflected in the number of alternative cones now being offered as after market modifications. However, how intrusive this coloration is ▶

► depends in no small part on the skill of the designer. With a single driver, three-way design you are connecting the voice-coil directly to the amplifier. Now, in many a conventional speaker the cross-over is used to hide a multitude of sins, an option which clearly isn't open in this case. Add to that a plain paper cone, devoid of any damping or treatment which might control its break-up but would cost efficiency, and the execution of the horn loading becomes critical to the evenness of the speaker's acoustic output. With belt, braces and safety net sacrificed on the altar of sensitivity, there's nowhere left to hide.

The thing that first attracted me to the Beauhorns was their unusually seamless tonal balance; achieved without sacrificing the speed and immediacy which justifies their obsessive pursuit of high efficiency. It speaks volumes for the artistry applied by Eric Thomas to the final configuration of the speaker. But it also tells us a lot about the amplifier that's controlling the motor assembly. There's nowhere for the speaker designer to hide, but equally that applies to the rest of the system.

To drive the Beauhorns, Pure Music designer David Wright (who also does design work for Audio Note UK) has devised a 3 Watt single-ended direct heated triode mono-block, based around a single-plate 6B4G output tube. This eclectic device is only the end of the chain, however, so perhaps we should start at the beginning. The Phono 2000 moving-magnet phono stage is a tube device using a low-noise cascode input stage and ECC88 twin-triodes. The output is transformer



coupled, and unusually, the transformers themselves are in a separate isolated enclosure in order to prevent induced hum from the mains supply. The unit is point to point hard wired with silver cable, as is the entire signal path through the other amplifiers.

The PRE-A 2000, along with its matching PSU 2000 external power supply, provides volume control for a single source. It employs a direct heated power valve of 1920's vintage, which whilst it is very low in gain, is extremely linear. The

volume control itself is a Noble pot, chosen on sonic grounds. Whilst it isn't the last word in attenuation, any substantial improvement would require at least a hand built stepped attenuator, and that is beyond the resources of a minute, bespoke operation like Pure Music. The outputs are again transformer coupled, and this time balanced as well, via three pin XLR sockets.

For those of a less hair-shirt persuasion than the single source brigade, there is also a passive switching unit, the PCU 2000. This provides 6 line inputs, two sets of single-ended outputs and a switchable tape output (defeatable with a rear mounted switch). Source switching is via a gold contact rotary control, and visually the PCU is a match for the PRE. Alternatively you can if you choose combine the two units into a single casework. ►



Which brings us back to the power amps. Substantial shoe-box shaped units, they are choke regulated designs, using the same mystery driver valve as the line-stage. In fact, choke regulated, valve rectified supplies are used throughout the system. Swimming against the flow, David Wright has used FET's to control the regulation, pointing to their longevity, repeatability and



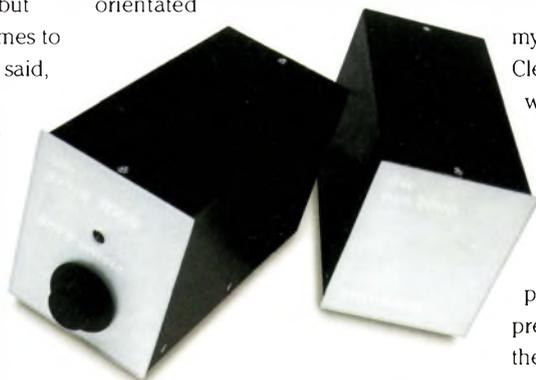
overall stability. Considering that their task is to supply a consistent voltage these are significant benefits, and I must say that my own experience suggests that excellent sonic and noise performance can be achieved using such devices. Of course, noise is critical in any system using 100 dB+ efficiency speakers. Finally, for those who require a little more than 3 Watts, Pure Music will build the same power circuit ►

▶ but modified to optimise it for the 300B output tube. However, Mr Wright points out that the extra power will cost you overall linearity and tonal purity - an observation which indicates just how far along the small amp/efficient speaker continuum we've travelled!

Both speaker and the balanced interconnect cables are hard-wired to the power amps, removing unnecessary connectors from the signal path, but committing the owner once it comes to positioning the equipment. Like I said, built to order and requirements. A perspex top-plate allows you to see the transformers and output valves, while the bottom of the chassis is supported on cones. The review system came with a bit of additional isolation in the shape of an MDF board supported on a 10" bicycle inner tube. It might sound a bit Heath Robinson, but in practice you barely even notice the tubes, and anybody doubting the benefits need only remove them in order to appreciate just what they are contributing.

Having discussed the insides, I guess it's time to talk about the outsides. The Pure Music amplifiers are unmistakably hand built. They possess neither the fit nor the finish of even a basic mass-produced unit. Nor do they offer the hewn from solid extravagance of the high-zoot high-end offerings. However, that is not to deride them. Their appearance has a simple, uncluttered functionality to it which somehow embodies their bespoke ethos. The Tri-planar tonearm never aspired to the standards of finish enjoyed by the SME 5 and Graham, but the fact that you could tell that this thing was entirely hand machined created its own aesthetic mystique. The Pure Music amps are the same. Devoid of the kind of source labelling and beautifully turned knobs that typify the mainstream competition, they are nonetheless purposeful and somehow serious in their presentation.

Of course, being bespoke units, they can be finished to order, with aluminium, copper and stainless steel examples already in existence. You can have what you like, provided you'll foot the bill, but me, I have to say that I rather like the frosted glass finish on the review system. Distinctive and distinctly different. But the bottom line here is that these are performance orientated



products which are, returning to our car analogy, if anything more Lotus 7 than Elise! The prospective purchaser will want them for what they do, not how they look. If you expect Audio Research standards of casework you'll be disappointed, but then you'll have missed the point anyway.

And the cost of this ascetic minimalism? £5000 including the phono stage, £4000 without. Which makes the Pure Music amps a serious bargain, especially when you consider their made to order status. On top of that you'll need to budget for interconnects between the phono stage, switching unit if you're using one, and the line stage. The review system was supplied with vdH Ultimate First leads.

As well as the basic amplification, this system also uses an Audio Innovations transformer to amplify moving-coil cartridges, and benefits

from a large isolation transformer and RF filter on the mains distribution board. That's a £600 option, but the step-up transformer was pre-owned by Eric. New customers would have a variety of options depending on the cartridge matching required, but most would come from other manufacturers rather than Pure Music, who are happy to specify alternative makes.

The system was set-up on one of my RDC racks and driven from the Clearlight Recovery turntable armed with the VPI JMW 12.5 tonearm and Ortofon MC7500 or Clearaudio Accurate cartridges. The Lowther drivers take a half hour or so of use before they warm to the task, so I had the Rega Planet CD player on hand to do the honours pre serious listening. The speakers themselves were fired across my listening room and substantially toed in, probably to cross halfway between the listening position and the plane of the drivers. Lateral spacing proved quite critical to bass voicing and extension, more so than most speakers. However, once it was right the sound was remarkably consistent from disc to disc. The amps were left permanently powered, and behaved flawlessly throughout.

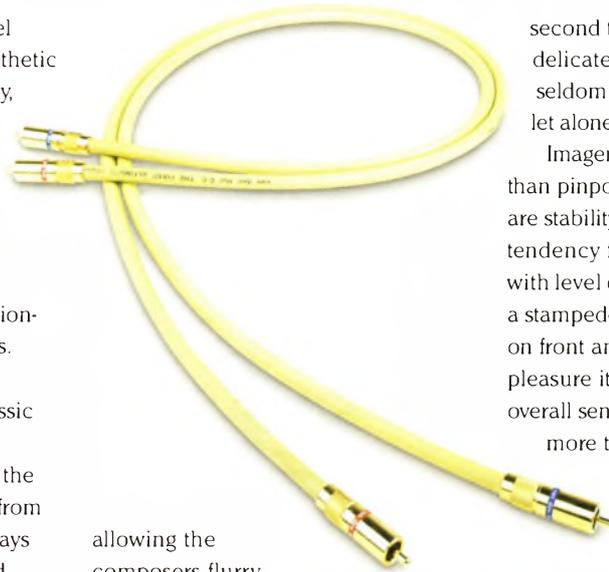


Once I'd finalised the speaker placement they were lifted onto their matching Vibra-plinths. These seismic sink-alikes are just as effective as the originals (and a whole lot prettier) and an essential purchase for all existing and future Beauhorn users.

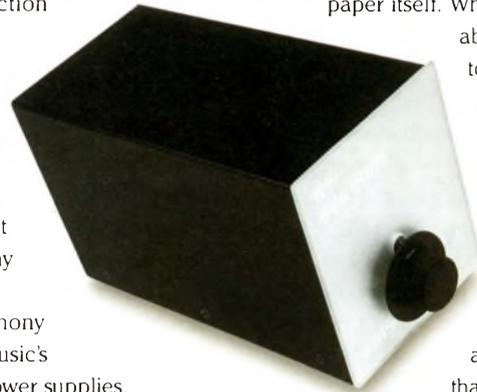
It quickly became obvious that the qualities that first caught my ear were even more apparent once ▶

▶ you take this system out of a hotel room and put it in a more sympathetic environment. Not surprising really, but reassuring none the less. Right from the start it showed an uncanny ability to cut straight to the meat of the musical issue, fastening on the important aspects in a piece and immediately establishing the relationship between its interlocking parts. Take the Heifetz recording of the Sibelius *Violin Concerto* (the Classic Records 180g re-issue LSC 2435): Despite being an admirer of both the work and the soloist, this was far from my favourite performance. I'd always found Heifetz' too sumptuous and comfortable for the soulful starkness of Sibelius' vision. This system has forced me to reconsider that view. Right from the opening quiver of violins the presence and atmosphere of the performance spring to life, while the solo instrument is incisive and direct, even a little jagged, just as it should be. The speed of the system allows the expressive flow of Heifetz's playing to retain its shape whilst revealing his fabulous technique and control. This is a leaner, quicker and more vibrant instrument, shorn of the rounding and smoothness introduced by slower systems. The ability to track and reproduce the micro-dynamics of the playing transforms the performance from sugary gloss to stark and simple realism, letting you hear the corners in the playing which are so vital to this composition. Suddenly I was presented with a new Heifetz; more ascetic with the edge and bite that the score demands.

So far so good at the small end of the scale, but how about the wider dynamic ranges and full orchestral forces? Needless to say, the system scales dynamic shifts without hesitation. As different instrumental choirs add their voices, the system deals with the expanding dynamic envelope with unflustered aplomb,



allowing the composers flurry of sweeping effects their full impact. The bass rumbles that underpin the orchestral contributions are distinct and perfectly pitched, and if they are wanting a little weight it does nothing to undermine their contribution. Instead, their combination of texture and life allows them to breathe convincingly, floating with none of that stodgy, earthbound heaviness that passes for bass reproduction in so many systems. Nor is there any of the soft, slothful flabbiness that marks so many single-ended designs, testimony to the Pure Music's substantial power supplies, an area of conspicuous under provision in too many triode amps. The discrimination of fine detail more than compensates for any lack of extension, actually enhancing the musical experience over and above a more conventional bass performance. The ability to separate and hold the sustained, drawn bass note that underpins the statement of the soloist's



second theme was a moment of delicate musical beauty such as I've seldom enjoyed from any system, let alone one on a fleeting visit.

Imagery was wholesome rather than pinpoint, but again the keywords are stability and coherence, with no tendency for instruments to wander with level or be elbowed aside in a stampede by larger forces intent on front and centre. Listening for pleasure it was never an issue, the overall sense of acoustic atmosphere more than compensating for any lack of focus and precision.

What though, of the legendary Lowther coloration. Well, I'd be lying if I said it wasn't there, but there's more to it than that. First I suppose I'd better describe its influence before I try to deal with its extent. People have described it as a papery sound and I can see where they are coming from. Don't get too hung up on the fact that we're dealing with a paper cone driver here. In this instance, it's more a question of texture and feel than any family sound associated with paper itself. What we are talking

about is a paleness to the overall palette, caused by a lack of energy in the lower mid. This robs instruments of some richness and weight, bringing with it a grainy dryness that adds a slight rustle to the sound of Cellos, limiting the absolute transparency of the system. It's this textural quality that typifies the Lowther sound. Take the familiar sound of Du Pre's instrument in the Elgar *Cello Concerto* (Barbirolli and the LSO, EMI ASD655). Here we hear it, placed perfectly in juxtaposition with the orchestra, the soloists part ▶

▶ interlocking seamlessly with its support. But it's a performance that lacks some of the sheer presence and commitment that makes Du Pre's playing stand out. The energy and drive are there, it's just that the instrument itself is lacking a degree of substance.

However, if that sounds pretty damning let's put it into perspective. Firstly, I chose as an example the recording that displays the problem



most clearly, which is a  
fter all the purpose of the  
exercise. Now let's put  
it into context. Yes,  
the Beuhorn/Pure  
Music system  
displays the  
characteristic  
Lowther finger-

print, however, it is less obvious and intrusive in this system than in any other I've heard (noting that I've yet to hear the Rethms reviewed elsewhere in this issue). What is more, the choice of partnering equipment and the precise positioning of the speakers (and listener) has a huge effect on the, uh, effect. Get both those things right and whilst Du Pre's instrument lacks a little of the expected substance and warmth, compensation comes in the shape of its wonderful vibrance and the purpose and controlled power of her bowing. The discrimination of bow pressure is absolutely first class.

In anticipation of this trade off I made sure that the VPI JMW 12.5 tonearm was mounted on the Clearlight Recovery. It's combination of rich, musical drive combined

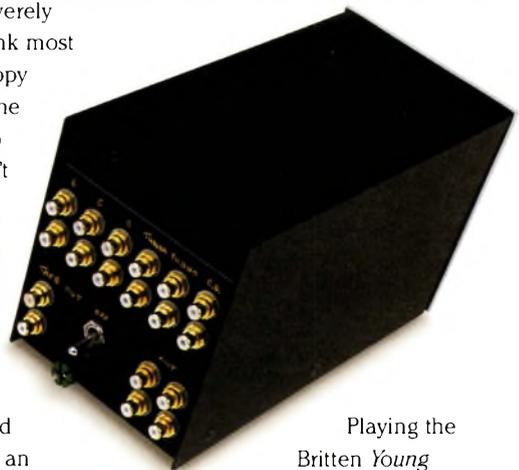
with the Recovery's harmonic sophistication and the wonderful tonal palette of the Ortofon MC7500 proved to be exactly what the doctor ordered. It also allowed me to swap armtubes to confirm my diagnosis with the Clearaudio Accurate, a cartridge which provided ample gain at the expense of tonal delicacy and an excitable overall balance.

I stayed with the Ortofon for the vast majority of my listening and was rewarded with a balanced and enticing performance sprinkled with occasional moments of sheer magic. Where does that leave us? Well, people with a highly developed allergy to Lowther drivers might

be surprised by a well set-up pair of Beuorns. I'm not saying that they'll be converted to the cause, but I think they'll find their objections severely muted. For the rest of us? I think most listeners will be more than happy to enjoy the strengths, finding the weaknesses surprisingly easy to ignore. So the Beuorns aren't perfect, but what speaker, especially a horn speaker, is?

Translating all of this to a wider musical context, let's wheel out *Tea For The Tillerman* (Cat Stevens, Island ILPM 9135). One of the things that I've always loved about this album (and I'm not an unreconstructed Hippy, honest) is the way that it builds simple acoustic songs into powerful finales, all dependent on the muscle power of the musicians alone. This music is all about the weight and attack of the playing and its purpose and power depend on the system to reflect that. If it sounds 'nice' then your system is almost certainly dynamically challenged. Not so the Beuhorn/Pure Music set up. From the opening

strummed chords of 'Hard Headed Woman' it was clear that the music was speaking with a voice of authority. The attack and emphasis of the playing, the way it is used to accent and underline the vocals has rarely been so vivid. Yes, there's a slight bleaching of the husky vocals, but the power and persuasion of the song remain undiminished. And boy does it build, each layer topping the one before, yet, impressively, the instruments that started the whole ball rolling remain perfectly scaled and stable in the midst of it all. Ultimately, if you push too hard, you reach the top-end limit of the system, but that is a function of the ludicrously low output of the Ortofon and the negligible gain of the line stage. Using the Clearaudio solved the maximum level problem, whilst there are higher gain alternative valves that could be designed into the line stage if required.



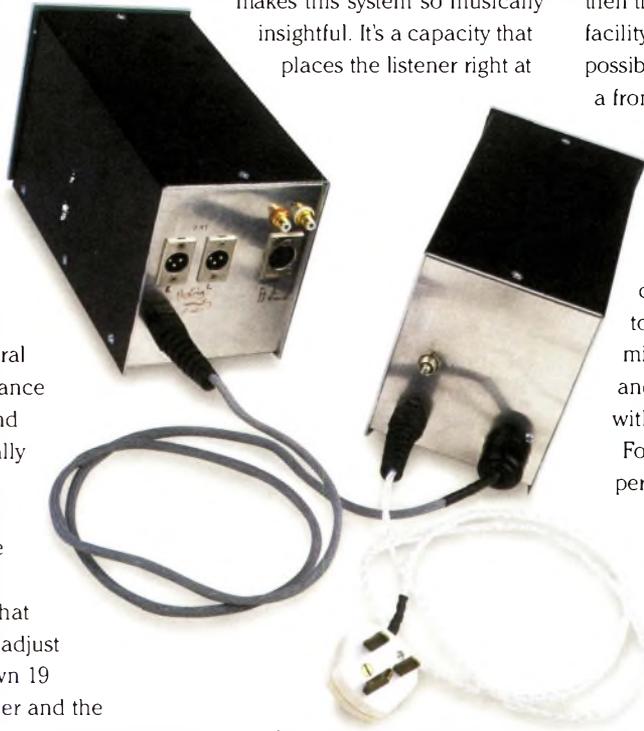
Playing the  
Britten *Young  
Person's Guide  
To The Orchestra* (Britten, LSO,  
Decca SXL 6110) underlined  
the system's impressive dynamic range,  
also drawing attention to its coherence  
and integrity, qualities that make it  
equally rewarding at lower levels.  
Rarely has Britten's development of  
Purcell's simple phrase been so clearly  
laid out, its structure so easy to follow.  
Whilst this will probably never satisfy  
the real headbangers and volume ▶

► fiends, for the domestic enjoyment of a wide range of music, this system offers a near perfect dynamic and volume equation. By working so convincingly at low volumes it actually reflects real world rather than review requirements.

One salutary lesson remains, and an example of perhaps this system's greatest strength. I played the Chet Baker album *Someday My Prince Will Come* (Steeplechase SCS 1180). It's a 120g pressing and I put it on immediately after a 180g disc. Oh my God, what's happened to my record? This is a wonderfully natural and intimate live performance with a real sense of life and presence. Well it is normally – except that here it was thin, disjointed and gutless. In fact, it was like the Lowther sound was back with a vengeance. That is, until I remembered to adjust the VTA on the JMW. Down 19 notches on the micrometer and the sound clicked into focus. Like I said, these speakers leave the rest of the system with nowhere to hide. And it's difficult to ignore the similarity between incorrect VTA and the Lowther driver's characteristic sound, as well as its ability to reveal poor set up more ruthlessly than any other speaker I've used. Hmmm...

But that's not the strength I was referring to. Listening to Chet's trumpet, and the beautifully understated accompaniment from guitar and upright bass, I was struck again by the effortless way in which this system distinguishes and reveals the very nature of a sound. The doubled notes of the guitar and bass were perfectly distinct (a harder trick than it sounds), their plucked nature as obviously apparent as the brassiness

of the trumpet. Returning to the opening of the Sibelius and we see another example in the shape of the wonderfully distinct woodwind echo to the solo violin, an unmistakable column of vibrating air. It's this ability to cut right to the very nature of the energy that produces a sound that makes this system so musically insightful. It's a capacity that places the listener right at



the heart of the musical chemistry. Despite the reputation of horns for intrusive coloration, the Beauhorns are impressively smooth and unintrusive, the identity of instruments never being in doubt.

How do I sum up this system? It's got limited bandwidth, and very limited domestic acceptability. It's shorn of facilities and the bespoke electronics are clearly hand made, with all that implies in terms of fit and finish. It's also one of the most musically insightful and accomplished set-ups I've used. It puts performance ahead of every other consideration, unashamedly so. Coloration levels are manageable, dynamic discrimination and speed are both extremely impressive.

The downside of such incisive and informative performance is the demands it places on the rest of the system. I gave considerable thought to my choice of source and was rewarded with exceptional results, but I have to say that if I was going to live with this system long term then the JMW with its adjustable VTA facility would be a vital element. The possibility of the full TNT Hot-Rod as a front end is also enticing. Of course, you can use CD as a source, but just as the system reveals normally trivial differences in turntable set-up, it will also ruthlessly reveal the shortcomings of digital sources. Add to that CD's habitual loss of lower mid-band energy and presence and you'll need to select a player with considerable care.

For the music lover who puts performance first it has to be said that this system provides astonishing musical rewards for what is, in high-end terms, a surprisingly modest outlay. My anticipation was well rewarded, and whilst this set-up isn't devoid of character, like all really great systems the strengths manage to overcome the weaknesses, rendering them musically irrelevant. In many respects it reminds me of the Yamamura-Churchill systems, and believe me when I say that that is praise indeed. ➤+

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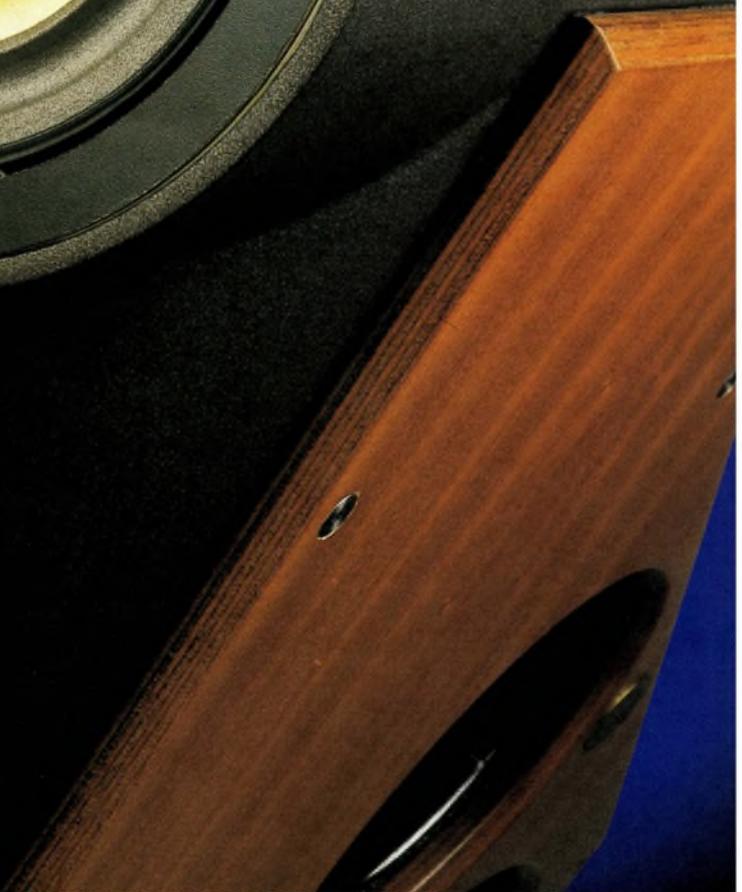
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# The Second Rethm Loudspeakers

by Peter Russell

Mention the word Horn loudspeaker and you get a polarised response. On the one hand people throw their hands up in dismay and declaim; megaphone and huge, no bass and lots of honk. On the other hand they fall down and genuflect in passionate adoration of the past and miniscule powered tube amps. If you then add the dreaded mantra, Lowther, they may well roll their eyes up in despair at upper-mid shout, rolled off bass and treble and DIY cabinets. For some however the word Lowther conjures up the apogee of the single driver loudspeaker.

Such passionate responses to Lowther based horn loudspeakers are not always borne out of first hand considered experience. For some the demonstration at some long forgotten Hi-Fi show or vicarious attendance at a dealers' showroom, or friends attempt at loudspeaker building translates into received wisdom. All horns shout and Lowthers honk! This of course is not helped by the myopic adherence of the converted who simply refuse to recognise any limitations or imperfections in their holy grail.

The appearance of yet another horn loudspeaker, and that with a single Lowther driver, has to be received with some trepidation and a touch of ennui. Oh no not again!

The whole point about single driver technology is that it is supposed to be able to reproduce the whole audible frequency range; you know, from 20Hz to 20kHz. That is a tall order for an eight-inch cone irrespective of advancements in cone technology.



With the DX4 driver in the Rethm enclosure we are talking about a frequency range of approximately 50Hz (being generous, on a good day and with a following wind) through to 18kHz.

However I am getting ahead of myself. We are talking here about a speaker which stands 1070mm high, 280mm wide and 900mm deep. Not too large for a horn speaker and with its narrow front profile, one that might even fit into a domestic living area. I say might because it really all depends on how the placement of the speakers pans out. They are one

of the most temperamental speakers I have ever had to position. That aside, their other distinguishing characteristic is that they have two large differently sized holes cut out of their sides and which run through the width of the

cabinet. If it wasn't for the fact

that the Lowther drivers were so obviously visible the Rethms could be mistaken for a misplaced Barbara Hepworth sculpture

in wood. This sculptural quality is no accident. Apart

from the fact that the designer is by profession an architect, the collandar and pipe approach to loudspeaker design serves a very real purpose. The holes allow the horn to discharge into the plane of the two loudspeakers. Traditionally the question of how to handle the 'horn' in a Lowther based speaker has been to either discharge the horn at the front or the back of the speaker. Either way there is normally some flare in the profile. Usually along its height with the width remaining constant. With the Rethms we are talking about a very different approach. Here we have a pipe with a constant diameter which curves down and round and discharges through the centre of the speaker via two differently sized holes which are full width ports.

The actual hornpipe/enclosure itself has previously been formed



► of moulded fibre glass but this has been replaced with cold formed ply which gives a more coherent and rounded sound. The whole enclosure is then braced by side panels that form a frame, which is in turn grounded to the floor by way of four spikes. A stainless steel track with two spikes, one at the front and one at the back secures the frame and stabilises the cabinet providing six points of ground contact in all. Given their weight and bulk they are not a speaker you would want to move around too often. However in the early stages you really have little choice if you want to get the positioning right.

I was fortunate in that Jacob George, the designer, flew over to England on his way to Zurich and was therefore available to assemble the speakers that had been crated from Cochin in India where they are made; the Lowther DX4 drivers had arrived separately. Assembly was straightforward and not too time consuming, with no crossovers or filters to worry about; once the cabinet and the stabilising frame had been assembled, all that remained was to install the drivers. This involved tapping the compression chamber, making the connections and centering the drivers in the pipe opening. Right? Wrong, we had to install a third cone. What on earth is going on here, what third cone? We know that the Lowther drivers are dual concentric but triple concentric; you can't be serious.

One of the qualities of the Lowther drivers is the fact that they are made out of paper and are coupled to large magnets. This gives about 99db efficiency, which, in a horn configuration, will result in another 4/5db. The lossy cone and heavy magnet will give high levels

of self damping and excellent resolution and detail but there will be a compromised frequency response as the stored mechanical energy will not be dissipated effectively. Complex musical passages may not have the inner detail and resolution that simpler music can portray.



The famed 3kHz midrange honk of the Lowther is a narrow band distortion, and according to Jacob, is a result of the intermodulation between the whizzer and the cones in the driver. By interposing a third cone acting as a baffle, which does not touch the other two cones, you ameliorate the potential uplift so often heard with this driver. The cone is held in place by being fixed to a chrome ring,

which is locked into an outer fixing ring on the face of the pipe housing the driver. The other factor influencing the upper mid/lower treble peak is the fact that the compression chamber is so designed as to not to allow any rear wave energy to be reflected back onto the driver.

Once assembled and with the auxiliary cones in place, we started with a rough positioning of three feet from the side walls, and four feet from the rear, angled in by 20 degrees. We were ready to play music.

A word of caution, these speakers need at least 200 hours of music to break in, and preferably 300 hours. Initially they sound thin and shallow, lacking in body and depth. As the cones break in the presentation relaxes, instruments assume their rightful timbre, and pace and rhythm establish themselves to create a musical harmony. You really have to be patient and persevere.

Gratification is deferred but all the better for it.

So, are these speakers unmistakably Horn speakers? The answer has to an unequivocal yes. They have all the immediacy and presence of a horn but without some of the familiar characteristics mentioned previously. For those of us brought up on the conventional multi-driver box speaker the Rethms will come as rather a surprise; there is an immediacy and an up front projection which creates an initial impression of radiated energy. This is what the Rethms do so well. They project the music into the space not only between the speakers but also in front of their plane. I had to ►

► bring the speakers further into the room to achieve a reasonable bass response, which meant that I was listening in a near field position. After protracted listening, I preferred to compromise the bass and set the speakers nearer to the rear wall to move my seat back to row M and not row C. Because of their design, they can be positioned far apart and very close to the side walls. Two feet seemed to get the best bass response and angling in at half the angle between the listening position and the wall ensured the imaging and spatial cues were optimised, but I don't think that I have ever had to spend so much time playing around with the positioning of a speaker as I have with the Rethms.

One may as well get the question of bass response out of the way as soon as possible and then we can concentrate on where the majority of the music really is. It is difficult to make a sweeping generalisation about the bass characteristics except that it is obviously room dependent. Listening to the double bass was readily believable. Whatever roll off there was, was gradual and gentle. Whilst you could not get earth shattering organ resonances, the organ in Water Lilly Acoustics *Trumpet and Organ, Music of the Baroque* was well articulated and the balance between the organ and the trumpet was beautifully presented. If you are seeking that 30hz and below response, to the exclusion of everything else, then you will need to look elsewhere. If however you feel that getting the relationship between the elements in the frequency spectrum is more important, then the Rethms will more than satisfy.

It is in the midband that these speakers come into their own,

especially with small ensemble and vocal works. Here they are able to present a coherence devoid of those subtle and sometimes not so subtle discontinuities so often found in multi driver box or hybrid speakers. With the ability to integrate that all important midrange into a seamless



presentation it is easy for the listener to forgive and unconsciously forget the lack of bass or ultimate transparency.

If there is one word that sums up these speakers it has to be integrity. They have the ability to present the relationship between instruments and their timbral signatures with a remarkable truth. It did not matter whether one was listening to Kathleen Ferrier, Billy Holiday, or Ute Lemper, the presentation of vocal textures, phrasing and

the subtleties of timing were all there to be enjoyed and appreciated. One of my favourite female vocalists is Felicity Wheathers singing Lieder. Apart from her technique, her voice has a liquid quality, which through the Rethms came across with an immediacy and a lyric presentation

I have never heard before. And it is here that I am not quite sure what I am hearing. There is no doubt that these speakers are able to deliver the energy inherent in the performance with a singular degree of accuracy and realism, however there is a seductive quality which they add to vocals, a timbral gloss which draws the listener into the performance. This is there in the same degree when listening to small jazz ensembles. The energy spectrum of the instruments is dramatically preserved, spatial positioning cues are exemplary, with depth and lateral positioning preserved across the frequency range. I am increasingly convinced that this is due to the single driver presenting a coherence and integration so often missing in multidriver systems. In small ensemble instrumental music the differences between the roles of the instruments is wonderfully clear, not only in terms of timbral accuracy but the energy profile, phrasing, timing and positioning. It is these differences that give the listener an opportunity to understand and appreciate the performance being presented to him or her.

Like most good things there have to be some limitations and with the Rethms we have already mentioned the restricted bass. At the other end of the spectrum there is a slight loss of shimmer in the highs in some violin recordings, hardly noticeable but there never the less. In the Delmoni recording of Bach's *Partita No 2 in D-minor* and Kreisler's *Recitativo and Scherzo Op 6*, the

▶ richness of the Cremona violin is captured with all its expressive energy and because the speakers do so much right in the mid range our brain forgives the slight loss at the upper frequency range. Because I had to position the Rethms five feet into the room to optimise the bass response it meant that I was listening closer than I would have ideally liked. This closeness contributed to occasional confusion in the presentation of large orchestral pieces. I'm talking here about the ability to present the layering of orchestral passages where the strings and woodwind have clearly differentiated roles, and in massed choral works where the counterpoint is taken up by the various choirs. The way in which the speakers were able to distinguish the musical complexity and define the role that each of the elements played in the overall performance was not always completely believable, however seductive. Shifting the Rethms so that I was in row m did not really solve the problem. If I had had more space behind me in a larger room then it may well have been different.

With high sensitivity speakers and 'horns' in particular, most people's immediate choice of amplification would be low output tubes. This may not be the most appropriate choice if you really want to get the best out of these speakers. Search out good solid-state amplification of about 25 watts and you will be surprised at the speed and control as well as the quality of the lower registers that can be achieved. Using small tube amps with the Rethms might be attractively rich and warm, but you may not get a lot of musical sense, and the speakers' key strength, their musical integrity, may well be compromised. It's a bit like throwing the baby out with the bath water. All those lush second harmonics can swamp and slow the



music's immediacy and drive, whereas a good, small solid-state design like my 47 Labs or the DNM FA3S would build on them.

Because these speakers contain very little to get in the way of the audio signal, they are able to capture the energy and the structure of the music to the point at which you have no choice but to participate in the music. It is so easy to forget and forgive their shortcomings. However be prepared to feel frustrated if you have a weak link in the audio chain because it will be revealed with a clarity and precision bordering on the painful. The slightest change

in the system; cables, cartridge VTA and loading, CD support etc. will become all too apparent. This system transparency belongs to the less is more school of design; how do you know if you have missed something if you have never heard it? The Rethms do not allow you to take things for granted, either about your equipment or your listening prejudices. Certainly you will have to re-evaluate the contribution each piece of equipment plays in producing the listening experience whilst at the same time your familiarity with the building blocks of music will be challenged. But once you have experienced their immediacy and impact and the way in which they engage you in the performance, it will be difficult to be satisfied with speakers that rely on hi-fi credentials in the search for high-end solutions. ➤+

#### TECHNICAL SPECIFICATIONS

Type:	Single Driver Composite Horn
Drive Unit:	Lowther DX4
Efficiency:	102dB
Impedance:	8 Ohms
Bandwidth:	50Hz - 18kHz ±3dB
Dimensions (WxHxD):	320x1056x900mm
Weight:	40kg each
Finish:	As shown
Price:	\$6000

**Manufacturer:**  
Rethm  
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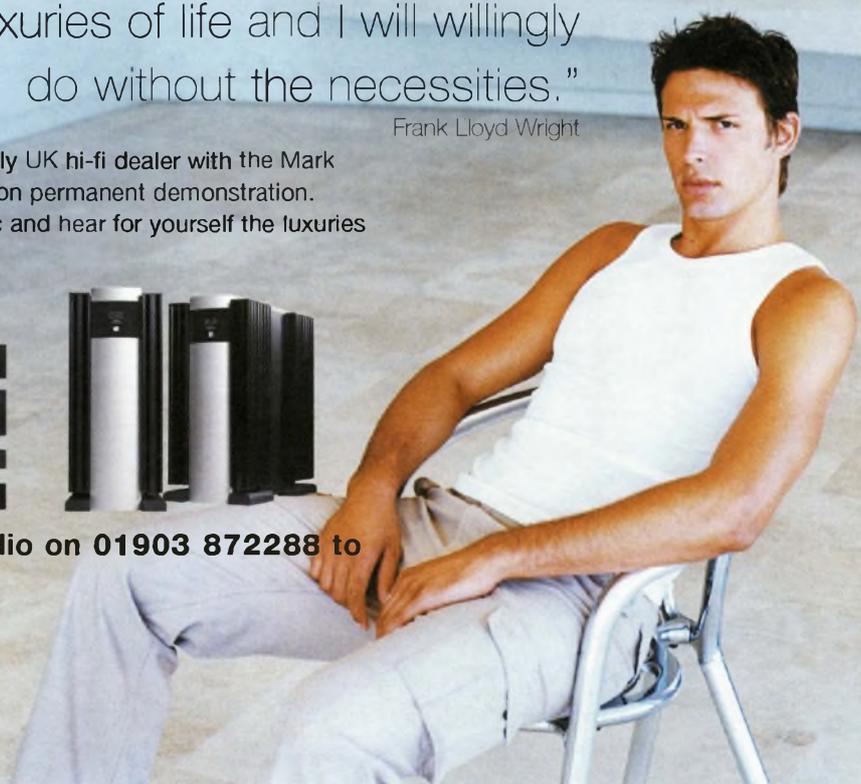
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# The PMC FB1 Loudspeaker

by Chris Binns

It's no secret that the professional recording and hi-fi industries do not share the most intimate of relationships. They deal with the recording and reproduction of music, which one would like to think of as complimentary – but for the most part seem to be worlds apart. At best one could say that they have a mutual disrespect for one another, at worst they seem to be fighting from opposite corners. Believe me, I know – while working in the recording studio I have had the piss taken ruthlessly for being a hi-fi nut (Hey! Chris wants to do that mix again with different coloured jack plugs....). And I have suffered long whinges from established amplifier designers who feel their art is being compromised, and I quote; "most mixing desks are full of cheap op-amps and sound awful". And so on. I have by now established a firm but diplomatic rebuke for both parties. Maybe one day I will put it into print.

Consequently, it is not always an easy task for a company to succeed in both the professional and domestic markets, being taken equally seriously in both. For the few that do manage it there are many who come away shaking their heads in disbelief. But none of this seems to have deterred the Professional Monitor Company, who have in the last few years become a force to be reckoned with in studio monitoring, and are now quietly making substantial inroads into the domestic market. In fact, I have it on good authority that they are currently the fastest growing loudspeaker manufacturer in the UK.

Formed in 1990 by Peter Thomas and Adrian Loader, there was a strong

professional heritage from the start as Peter Thomas was a senior technical manager for the BBC, with plenty of first hand experience and understanding of the requirements for professional

monitoring. With the desire to create a 'better' loudspeaker came a slightly unorthodox, or at least unfashionable, approach to the reproduction of bass frequencies with the use of transmission lines. Such is their belief in this method of bass loading that all of their designs from the monster BB5 – becoming something of a familiar fixture in many recording studios – to the compact TB2 utilise it.

In terms of hi-fi, transmission line

loudspeakers have traditionally occupied a territory within the murky depths of obscurity alongside the venerable horn, for the most part due to the fact that to be effective they are (usually) large and thus suffer a lack of domestic acceptability. They also share a need for relatively complex cabinets – something else that has kept them in a specialist market. However, if for a given cabinet size, a horn design trades bass extension for efficiency, the transmission line very definitely puts bandwidth at the top of the list. They first appeared in the late sixties with a number of companies such as Radford, Cambridge and Griffin producing designs, but it was IMF (who I think were, in the main, responsible for the technique's development) who became the chief exponents of the genre. By and large they were expensive, due in no small part to the internally complicated cabinets; as a result a lot of the magazines offered projects for the more ambitious DIY enthusiast, with designs from *Hi Fi News*, *Hi Fi for Pleasure\** (great title...what else is hi fi for?) and a particularly good design in *Wireless World* by Dr Bailey. But wide bandwidth isn't everything, and as the fashion ►

\*Just so that you know, I am already compiling a list of equipment for a fictional publication entitled 'Hi Fi for Pain'....



▶ for more compact loudspeakers began to take hold, the transmission line all but disappeared. However, judging by the number of units that appeared in the 'for sale' ads a few years later, I think a lot of people went down that particular road.

Unlike many of the older designs, the FM1 is about as domestically friendly as a floor standing loudspeaker can get. It is not overly large, and its external appearance does little to distinguish it from any one of a number of slim, elegant loudspeakers. The cabinet is reassuringly solid, due in no small part to the internal partitioning used to form the line bracing the walls very effectively. The two drive units are built to specification by Vifa, and comprise a 6.5 inch paper coned bass-mid coupled to an aluminium dome tweeter. All drivers and crossover components are matched to a fine tolerance, and bi-wiring is available via two pairs of gold plated connectors. Mechanical stability is enhanced by the addition of a bolt on cast frame so despite the small footprint the whole structure is reassuringly stable once set up.

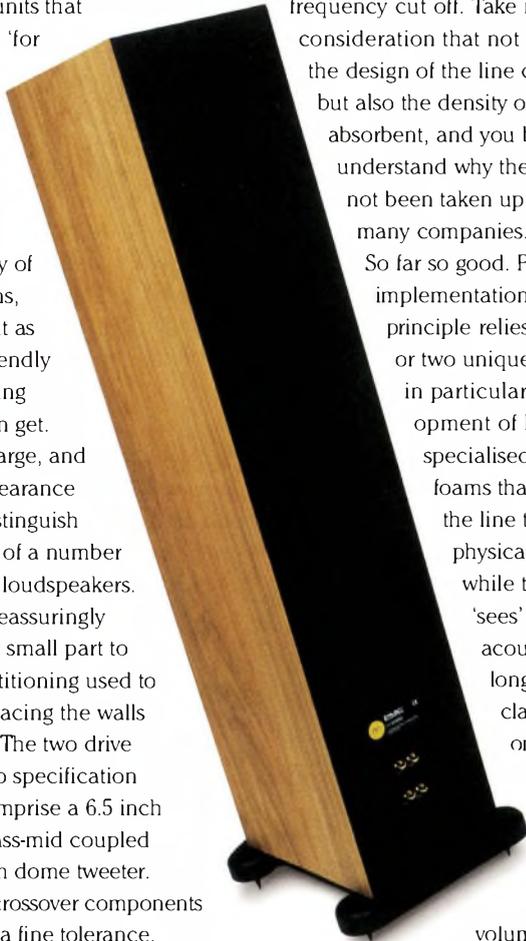
The basic principle behind the transmission line is that the rear of the bass unit fires into a long pipe filled with acoustic absorbent, the density of which changes as it goes down the line. So the energy from the back of the cone is progressively absorbed, while low frequencies emerge from the open end of the pipe in phase with the directly radiated information. In practice, this means dividing the cabinet internally to form the pipe,

(hence the complicated woodwork) and it needs to be of a reasonable length to obtain a respectable low frequency cut off. Take into consideration that not only is the design of the line crucial, but also the density of the absorbent, and you begin to understand why the idea has not been taken up by that many companies.

So far so good. PMC's implementation of the principle relies upon one or two unique features, in particular the development of highly specialised plastic foams that enable the line to be made physically shorter, while the drive unit 'sees' it as being acoustically longer. PMC claim at least one further octave of bass extension for a given enclosure volume compared to a conventional ported or infinite baffle design.

What makes it all worthwhile apart from the potential extension, is that the loudspeaker interfaces with the room in a more natural fashion due to a very gentle bass roll off of 12 dB/octave or so, and a lack of peaks that would normally excite any room resonance. Further benefits include superior control and damping of the diaphragm over a wide range of frequencies, this potentially means better power handling and a flatter impedance curve throughout its working range.

If I'm honest, I would have to say that I have so far been underwhelmed by most of the transmission line loudspeakers that I have heard. They have impressed me with their bass extension, neutrality and refinement, but they have had about as musically interesting as Radio One. So I am happy to report that from the word go, the FB1 is not typical of the breed. Set up with my usual collection of equipment, my first impressions were of a lively loudspeaker, somewhat forward in character, and certainly not reticent in communicating musically. I say forward, in fact the top end response was quite caustic and a little unpleasant to begin with, but after a day or so of running it began to ease off considerably. I also tried some different cable as the Nordost SPM is unrestricted at the top end, and this transparency can sometimes prove unforgiving in some systems. As PMC saw fit to supply some heavy stranded cable for use with their loudspeakers, I thought I would give it a shot, but soon discovered this was not the way to go – it sounded revolting. Sure, it tamed (read: strangled) the top end, but also managed to make everything else sound constipated to a degree that no



amount of Bran flakes could sort out. This is probably the professional influence – good thick multi stranded copper, nothing fancy. The Chord Co. Odyssey worked just fine, and a later session with the ▶

► SPM confirmed that the astringent HF had settled down quite nicely. Positioning in the room seemed to have little effect on the bass performance, and I settled on a slight toe in for best imaging and tonal balance.

There are some loudspeakers that bowl you over with what sounds like prodigious amounts of bass in an attempt to convince you that they have extended bandwidth. The FB1's don't – if anything they sound a little bass shy. But then you play music with some genuinely low bass, and you realise that they are reproducing the fundamental accurately, unencumbered by the usual flatulence that some speakers provide. More to the point, reproduction of the lower registers was even with no obvious peaks at any frequency, and there was little or no tendency to excite the room to produce one note bass. One of my 'sort the men out from the boys' discs is the Chandos recording of the Poulenc *Organ Concerto*, performed in Liverpool cathedral, which has got one of the largest organs in this country, sporting no end of long (hence deep) pipes. The FB1's did a great job of reproducing the 32 and 64 foot pedal notes, but really came up trumps at the end of the piece, where a single viola is accompanied by the organ. A lot of loudspeakers fail the challenge by letting the deep open bass notes swamp the delicate string instruments, but the PMC's got the balance just right to produce an eerie and spine tingling result.

But that's not the whole story. After all, this is what transmission lines have traditionally been good at, probably to the detriment of everything else. Bass performance also had, where required, a nice crisp kick to it that served more rhythmic music well, giving an attractive sense of

drive and purpose while providing a solid foundation for the mid and top: Which was open and detailed, with plenty of speed and attack, particularly as it was not camouflaged by a ponderous bottom end. As I have said, the presentation is quite up front – but not unpleasantly so, and string music is reproduced well with realistic timbres from the cello up, with little exaggeration or overhang, while positioning of instruments was well defined.

Playing rock music at relatively high levels seemed to pose no problems for the FB1's, and playing the original Blue Nile LP (*A walk across the roof tops*) I was reminded that this was originally a showcase for Linn records – well recorded and frighteningly dynamic. Just as I was

thinking about the sole 6" bass driver working over-time, the moment would pass without any noticeable stress. A quick look showed that the cone was not moving much at all, testimony to the high damping characteristics offered by the transmission line.

It would not be an understatement to say that the FB1 is the first transmission line loudspeaker that I have really enjoyed, and found to be musically satisfying. PMC have successfully utilised the principle to provide an even and extended response without compromising other aspects of performance, instead it enhances the loudspeaker's ability to reproduce music in a thoroughly enjoyable fashion. It is easy to drive, due to its reasonably high sensitivity and benign load characteristics, thus opening up the choice for amplification, and judging from what I heard I reckon its pretty room tolerant as well. At just a tad over £1400 I would say that the FB1 has a lot going for it.



#### TECHNICAL SPECIFICATIONS

Type:	Two-way transmission line
Drivers - HF:	25mm Aluminium dome
LF:	170mm doped paper cone
Bandwidth:	22Hz – 20KHz
Efficiency:	90dB
Impedance:	8 Ohms nominal
Dimensions (WxHxD):	200x1000x300 mm HWD
Finishes:	Black Ash, Cherry, Oak, Walnut, Rosewood
Weight:	18Kg each
Price:	£1410

#### Manufacturer:

PMC Ltd.  
Tel. (44)(0)870 444 1044  
Fax. (44)(0)870 444 1045  
E-mail. sales@promonitor.co.uk  
Net. www.pmc-speakers.com





# The Cyrus Icon Loudspeaker

by Chris Binns

I sometimes wonder if we are in a bit of a technological rut. Why? For all the wonderful electronic development that is going on around us, there are areas where successful innovation is sadly lacking. For example, the internal combustion engine - it has been around for over a hundred years, and yet there is still no viable alternative, despite its complexity and the damage it does to the environment. Likewise the loudspeaker: the moving coil drive unit is ancient technology that we have refined to incredible levels of sophistication, despite the obvious drawbacks of crossovers and cabinets. But it works so effectively that 99% of manufacturers use it. Meanwhile you and I bury ourselves in the differences between plastic and paper cones or single verses bi-wiring – all variations on the same theme. There are exceptions of course, the Quad electrostatic for one; maybe its automotive equivalent would be the rotary engine, brilliant in many respects but quirky enough to remain relatively obscure.

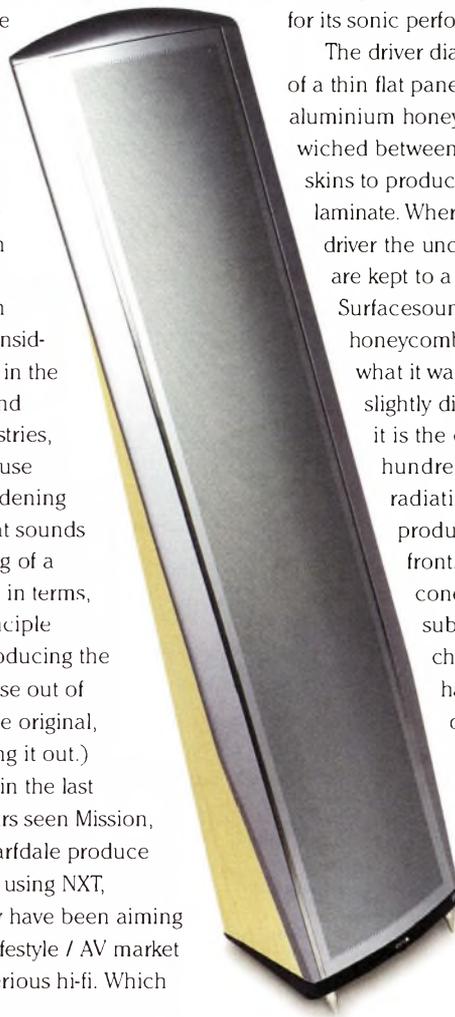
There are some truly great loudspeakers around... but I do confess that in my darker moments I feel that it can all get a bit boring, and can understand why people get fanatical about things like ionic tweeters for example, not just A.N. Other two way box. So the announcement of the THX flat panel technology in 1996 was of considerable interest as it seemed as if there might be some new and

viable technology to challenge the supremacy of the traditional cone drive units that had reigned for so long. And then... well, very little. Nothing immediately materialised in terms of a real world product, while the NXT Plc group granted licenses to manufacturers to develop the technology more specifically. Although not much seemed to be happening on the hi-fi front, NXT has been developed considerably for use in the automotive and aviation industries, ironically for use as sound deadening panels. (If that sounds like something of a contradiction in terms, the basic principle involves reproducing the offending noise out of phase with the original, thus cancelling it out.)

We have, in the last couple of years seen Mission, Elac and Wharfedale produce loudspeakers using NXT, although they have been aiming more at the lifestyle / AV market rather than serious hi-fi. Which

makes Cyrus the first company to take up the challenge of producing a serious high end product utilising NXT technology, in the form of the Icon. Two years of research has resulted in their own unique flat panel drive unit, christened Surfacesound, and they make some fairly bold claims for its sonic performance.

The driver diaphragm consists of a thin flat panel made up of an aluminium honeycomb core sandwiched between two carbon fibre skins to produce a nine-element laminate. Whereas in a conventional driver the undesirable resonances are kept to a minimum, with Surfacesound each segment of honeycomb is allowed to do what it wants, and vibrates slightly differently to the next; it is the combination of hundreds of segments radiating at random that produces a coherent wave-front. Unlike conventional cones the panel is not as subject to directional characteristics, and has a more uniform output over its radiating surface with a number of benefits; better room integration for example. The diaphragm is driven by two electro-magnetic



► exciters, however their exact position and coupling is critical and to this end the whole unit is built into a substantial cast frame to maintain structural rigidity. The Surfacesound driver works down to 400Hz, where a conventional moving coil bass unit takes over, an 8" design incorporating a heavy pulp cone within a cast chassis, built to specification by Peerless.

The Icon is a striking looking loudspeaker, and form follows function to the degree that even the uninitiated realise that there is something a bit different at work here. Tall and slim, the tapered cabinet contains two sections, the top one housing the surfacesound driver which is semi enclosed (a foam filled slot allows some rear radiated energy to escape) while the lower half forms the enclosure for the bass unit. A port is used to augment low frequency output, and despite the compact dimensions, Cyrus claim bass extension down to 18Hz. The whole structure is very solid and stable, due in part to the cast base and sensible spiking system, with a choice of three or four point contact to the floor, which is easily adjustable for the correct listening angle. Two aluminium extrusions flank the front grille, (which Cyrus recommend should be left in place for listening) while the general appearance is hi tech - but not so overstated as to be domestically unacceptable.

After two weeks of continuous running in, I moved the icons in to

my main listening room and hooked them up to the usual system. My first impression was not unlike the experience of hearing an electrostatic design for the first time – the presentation is so different from conventional loudspeakers that it takes a while to orientate oneself. After playing through a few tracks, there seemed to be a major problem with the bottom end, which sounded overblown and tuneless to the extent of making it impossible to discern what was going on with the mid and top. I soon found that in my room positioning was critical, and changing the position by a few inches had

a dramatic effect on bass performance. My suspicion was that the low tuning of the port coupled to its proximity to the floor was exciting the room resonances, but inch by inch I managed to reduce the effect to manageable proportions. The addition of a sock (literally!) in the port also helped considerably. Once I had achieved this, low frequencies became more integrated with everything else, and I was able to get a more complete idea of what was really going on.

The Icons produce a large, no, make that huge listening window quite unlike any other loudspeaker that I have heard, and due to their lack of directional

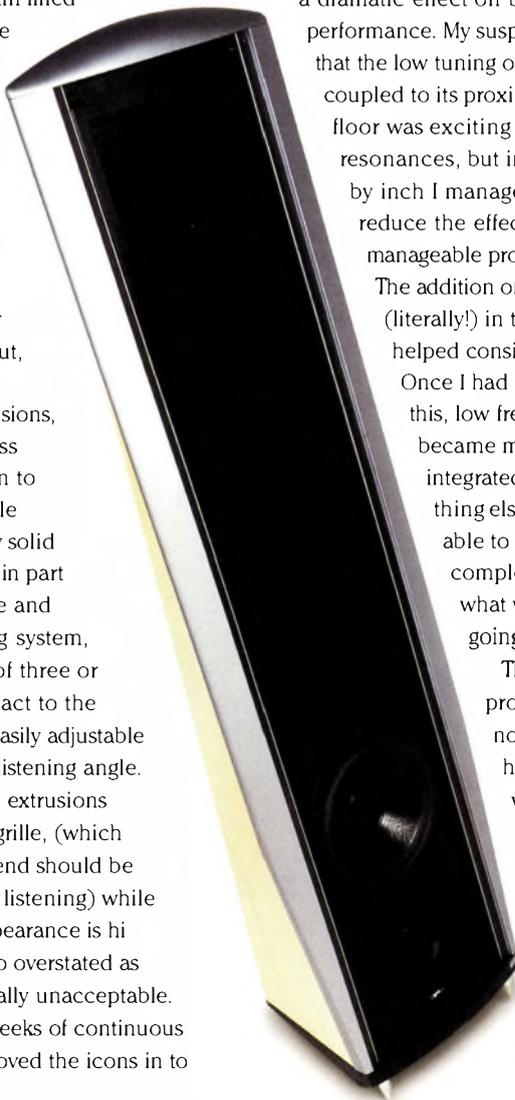
characteristics this occurs over a wide listening area; for once listening could be a social experience rather than the normal hot seat session. The positioning that seemed to have so much influence over the bottom end

seemed to make little or no difference to the panels' behaviour,



and the sound remained consistent both tonally and in presentation. Most of the time music was well projected into the room, and I was not often aware of the loudspeakers themselves, but what the Icons cannot do is provide the sort of holographic imagery that some designs are capable of. This is a contentious point, as we have got used to, and expect systems to do this and often associate the production of a solid central image with 'realistic' reproduction. But does it actually happen like that in real life?

The Icons tend to throw you the odd clue as to a performers' location in the soundstage, but they are reticent to provide any depth behind the loudspeakers. This can be disconcerting, as the result can be somewhat two dimensional, occasionally robbing music of the background information that can help to complete the illusion of a performance transported to your living room: For example the boundaries that define a recording venue. Did I say illusion? There you go. Maybe that's the conditioning that comes with living with small loudspeakers that do the holographic bit reasonably well, so it's what I'm ►



► used to. But really, if I'm honest I can't recall the last time that I heard live music and was able to pin point a particular instrument on the stage with my eyes closed.

Tonally, the Icons give the impression of being laid back, maybe because they are not afflicted with some of the less desirable characteristics that many conventional dome tweeters exhibit. Don't be fooled though, as there is a wealth of detail available that is both fast and articulate. But it was the sense of coherence across the mid and top that was so appealing, and served to highlight the fact that most conventional loudspeakers choose to cross over at one of the most sensitive points in the audio spectrum – and it shows. Voices, whether spoken or sung had a believable presence that was uncanny, while most acoustic instruments benefited as well.

If it seems that I have been pulling the Icons apart, I think it has been an inherent part of the process of readjusting to a completely different kind of loudspeaker. Having done the academic appraisal to evaluate what was actually going on, I could begin to relax, and the more I listened the more I came round to the Icons presentation. Easy going seemed to crop up in my notes quite a lot, and they almost seem to discourage intense concentration, preferring instead to let the music wash over you. I listened to the whole of the Shostakovich 5th Symphony late one night, and it was a thoroughly enjoyable experience. The character of each group of instruments was beautifully portrayed, and never seemed to get mixed up, even

during complicated passages. There was some limitation on dynamics at higher volumes, but not in an intrusive way, it was just that the system would not go any louder, and I suspect that this was down to the loudspeakers rather than the amplification running out of steam.



While reviewing the Icons, Cyrus sent down a pair of their latest power amplifiers, an updated version of the AFA 7 that I wrote about last year. My troubles with the bass performance would have been more easily ameliorated had

I used these from the start – there was (not unexpectedly) a symbiosis between them that graced the low frequency performance with considerably more pace and rhythm. As well as control and grip, the Icons need plenty of power to achieve realistic results due to their quite

low efficiency, and the APA 7.5's worked very well, giving the bass a better sense of integration with everything else. Drum led music now had a greater sense of purpose and the bass energy seemed more focused on propelling the music along rather than inhibiting it and dragging it down.

Overall, I found the Icons great fun to listen to. Like many high-end products they are fussy, and I have some minor reservations about the bass alignment which seems to be very room sensitive and thus demands extremely careful set up, in contrast to the NXT panel which, paradoxically proved to be almost immune to positioning.

The production of the Icon has been a brave move for Cyrus, and is representative of their commitment to releasing exciting and innovative hi-fi. For that alone it deserves to succeed, and I think the biggest problem they are going to face is that the Icon does things in a highly individual fashion which takes a while to become accustomed to. Once you have, there are many aspects of their performance that could become addictive, to the extent that listening to conventional loudspeakers might prove disappointing. ►+

#### TECHNICAL SPECIFICATIONS

Recommended amplifier:	60 – 100 Watts
Frequency response:	18Hz – 22KHz ±3dB
Nominal impedance:	6 Ohms
Cross-over frequency:	400 Hz
Sensitivity:	84 dB
Dimensions (WxHxD):	340x1250x295 mm
Weight:	24 Kg each
Finish:	Maple or Black Ash to special order
Price:	£2500

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# KEF Q35/II Loudspeaker

by Roy Gregory

There are certain things that have an accepted status as good ideas, at least within certain sectors of the hi-fi community. I'm not talking about the dictates of fashion; bi-wiring or this particular type or make of valve, but about more enduring concepts with the resilience to re-emerge time and again. In fact, it would be nearer the truth to say that they never really go away, they just drift slightly out of view from time to time.

One such idea is the concentric driver. Tannoy have used it for years; the Lowther drivers are an even older example, both of which have featured in our pages. Doubtless there are older examples still, but these two have a special resonance simply because, since their inception, and despite considerable refinement, they remain essentially unchanged. However, the recent development of Neodymium magnet technology has allowed a further conceptual leap. Now for the first time, theoretically at least, concentric drivers should begin to deliver on their promise.

But to understand why we need to back up a little and look at our two historical examples. The benefits of a coincident source for the entire musical spectrum should be self-evident. The Lowther takes this a stage further, actually using the same motor for the entire frequency range. The problem is that the search for efficiency dictates the use of a light



weight paper composite cone which in turn results to relatively high inherent coloration levels and a prematurely rolled off treble response. Before the Lowther fanatics declare a fatwah on me, I'll point out that the coloration issue is far more complex than that,

and involves the relationship between the cone and its horn loading, as we see in the case of the Beauhorn, reviewed elsewhere in this issue, but there's not a lot that can be done about the lack of extension.

Turning to the Tannoy, the bandwidth issue is handled by the adoption of a horn-loaded compression driver for high frequencies, coupled to anything up to a 15" bass cone. That of course introduces cross-over issues as you end up working the larger driver up beyond the frequencies where it's really comfortable. But conceptually more important is the placement of the tweeter's motor behind the acoustic centre of the main driver, effectively displacing it fore and aft rather than vertically as is more normal.

However, with the advent of tiny, but very powerful magnets, it became possible to place a dedicated high frequency unit within the voice-coil diameter of the main driver. Happily, for a lot of medium sized bass/mid units that diameter is 25mm, which makes it especially convenient. So convenient in fact that KEF in the UK, Teil in the USA and Cabasse in France have all adopted the approach. And most OEM driver manufacturers seem to offer a coincident driver of some sort. This arrangement neatly ▶

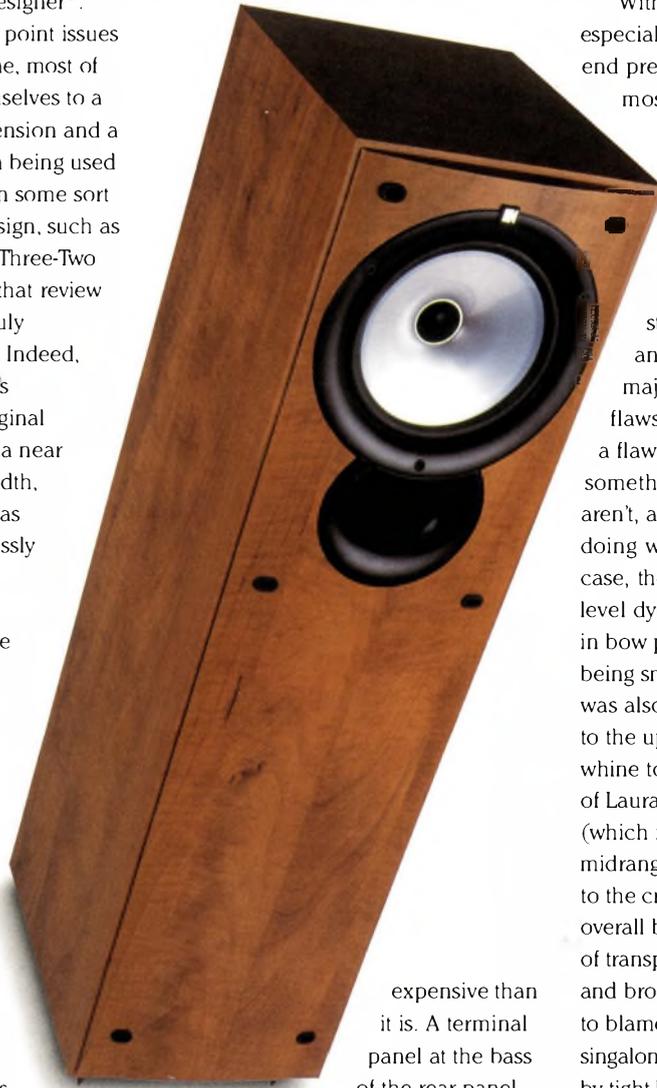
One of the biggest problems facing any hybrid design is trying to marry the often different dispersions of two disparate drivers, the worst case being a cone woofer with a di-polar planar mid and treble panel. It is interesting to note that the Cyrus Icon hybrid NXT design, reviewed on page 52, contains the panel's rear wave.

▶ marries a 25mm hf dome with a cone driver, keeping their acoustic centres identical. It also couples the output of the tweeter to the room via the flare of the cone driver, ensuring identical dispersion at the crossover frequency, one of the perennial problems facing any multi-driver speaker designer\*.

To avoid the crossover point issues raised by a large main cone, most of these drivers content themselves to a limited low frequency extension and a small cone diameter, often being used as true mid-range drivers in some sort of three (or more) way design, such as the KEF Reference Model Three-Two reviewed in Issue 6. Read that review and you'll see that I was duly impressed by that speaker. Indeed, for many years I used KEF's Reference 105/III, their original Uni-Q design. In it I found a near perfect balance of bandwidth, coherence and efficiency, as well as the ability to ruthlessly reveal what exactly was happening upstream. But both these designs, and the majority of the Theil and Cabasse speakers using this technology are large and expensive. The question remains; how well does it suit loudspeakers at more modest price points? There's no better way to find out than KEF's Q35/II.

It's hard enough to build a \$350 floorstanding speaker at the best of times. It certainly isn't going to allow the kind of budget to go for a full-on three-way design, so if you are going to use Uni-Q technology you are stuck with a two-way in which the main cone is going to provide all your bass as well. You could say that it cuts straight to the heart of the problem. KEF's response is a six and a half inch unit with a clear plastic cone, mounted in the by now

almost standard slim cabinet. The driver is reflex loaded by a large and well flared port that overlaps its basket trim to create a pleasing and unusual appearance. The cabinet is clad in plastic cherry veneer, and with its bowed front baffle looks a lot more



expensive than it is. A terminal panel at the bass of the rear panel allows bi-wiring,

an option I advise if only to rid your signal path of the horrible bridging connectors provided. In stark contrast, the spikes provided, for years a KEF weakness, are absolutely first class. Big chunky M8 jobs, they are well up to the task of stabilising what is a predictably lightweight structure. The Q35s are designed for free space

placement, and I ended up with them pretty much where I expected, but about three inches closer to the rear wall than bigger, wider bandwidth designs. It's all to do with the bass balance, and maximising extension without causing congestion or 'bloat'.

With any budget speaker, especially one with any sort of high-end pretensions, the easiest (and most brutal) way to get a handle on its shortcomings is to plug it in straight after a far more accomplished (which all too often means far more expensive) design.

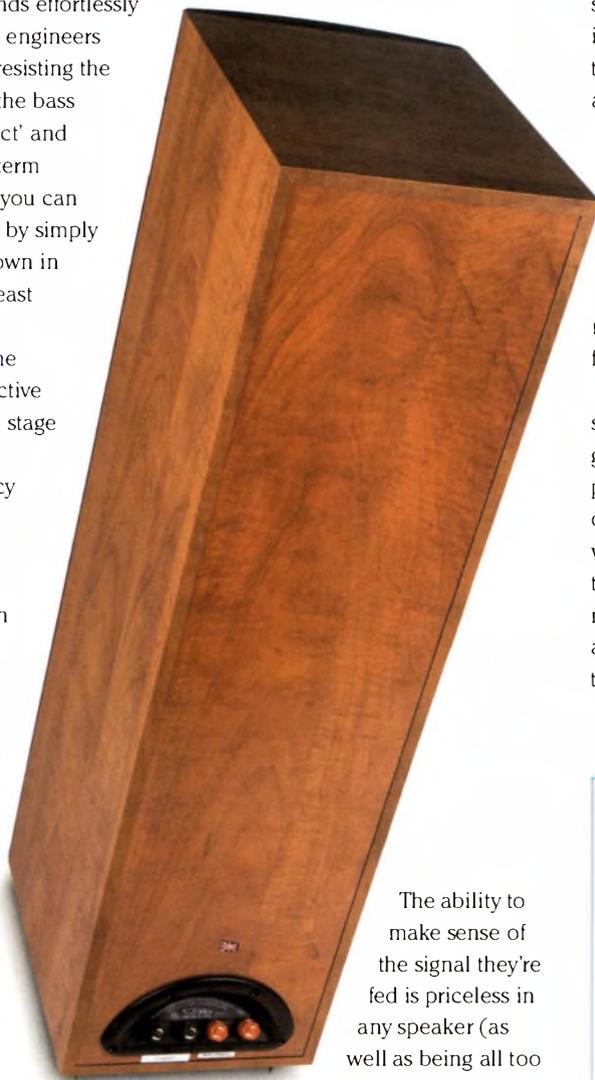
Force the Q35s into the footsteps of the \$4000 Avatar OBXs and they quickly reveal one major failing and two major flaws. The difference between a flaw and a failing? A failing is something they should be doing but aren't, a flaw is something they are doing which they shouldn't. In this case, there was a clear lack of low-level dynamic resolution, tiny shifts in bow pressure or vocal inflections being smoothed and smeared. There was also a persistent nasal coloration to the upper midband, adding a slight whine to the otherwise pristine tones of Laura Cantrell and Nancy Griffith (which it's tempting to blame on the midrange cone struggling to work up to the crossover frequency) and an overall blurring congestion and lack of transparency in the upper-bass and broad mid (which it's tempting to blame on the large panels and singalongabox tendencies necessitated by tight build budgets and floorstanding cabinets). Whatever the truth of the matter, and it's dangerous to assume that the obvious explanation is the correct one, it was clear to hear that the Q35 works no miracles, arriving complete with the shortcomings inherent in any design built at this sort of price.

However, having said that, it's got a lot going for it too. The Q35/II is ▶

▶ a remarkably coherent and seamless performer, with none of the obvious discontinuities or exaggerations that mar so many of its price peers. Indeed, take the requisite care over positioning and you'll be rewarded with a surprisingly smooth and even bass response which blends effortlessly into the lower mid. KEF's engineers are to be applauded for resisting the temptation to overvoice the bass in search of added 'impact' and a more impressive short term performance. Of course, you can undo all their good work by simply dumping the speakers down in the wrong place, but at least they give you the option.

The ability to show the scale and natural perspective of a well recorded sound stage has always been a Uni-Q strength, and transparency aside, the Q35 is no exception, delivering satisfying images with presence, depth and even realistic height. It also times well, allowing music a natural sense of pace and melodies a readily discerned shape and individuality. When Laura Cantrell stretches out the syllables in 'Little Bit Of You' (*Not The Tremblin' Kind* Shoeshine Records SPITCD 001) the speakers keep the relationship between voice and instruments spot on, while the quality of the cymbal and high-hat work is testimony to the Q35's clean and clear top-end. That particular hollow clash of the high-hat is beautifully rendered, the horizontal wave of air pressure that results. It's this that reveals the key to what makes the KEFs anything

but run-of-the-mill. Although not an obviously detailed speaker, there's actually information a plenty. It's just that with its exceptional coherence the Q35 manages to integrate it all into a single, complete, but more importantly understandable whole.



The ability to make sense of the signal they're fed is priceless in any speaker (as well as being all too rare). To find it in a design at this modest

price is remarkable indeed. The result is a speaker which is surprisingly rewarding in the long term. It's shortcomings, whilst apparent, are not musically obstructive, allowing you to enjoy the performance and subtle interplay in a recording, regardless of the type of programme material. The KEFs were equally comfortable

with Ella's *Cole Porter* or the newly arrived and rather excellent Munch/BSO Debussy *Images For Orchestra* (JMCXR - 0004). A genuine all-rounder in an age where that term has taken on pejorative tones (largely it seems, due to the performance of a whole string of post-Botham pretenders) it would be wrong to pretend that the Q35 is something that it isn't, a pearl beyond price. What it does do is provide astonishing musical competence and communication at an approachable price, allowing the impoverished music lover to enjoy their recordings, and the rest of their system to grow, musically unimpeded when funds and circumstances allow.

In fact, the Q35s greatest strength might also be their greatest weakness. Their performance is so even and free of emphasis that many a listener will quickly pass them by. Now that would be a tragedy, because music (unlike movies) needs a speaker like the Q35/II, and they aren't that easy to find.



#### TECHNICAL SPECIFICATIONS

Type:	Coincident two-way reflex
Drivers - HF:	25mm Soft Dome
- LF:	160mm Polypropylene Cone
Bandwidth:	45Hz - 20kHz $\pm$ 3dB
Impedance:	4 Ohms (2.5 Ohm minimum)
Sensitivity:	90dB
Dimensions (WxHxD):	210x785x270mm
Finishes:	Black Ash, Natural Cherry, Dark Apple
Price:	£350

#### Manufacturer:

KEF Audio Ltd  
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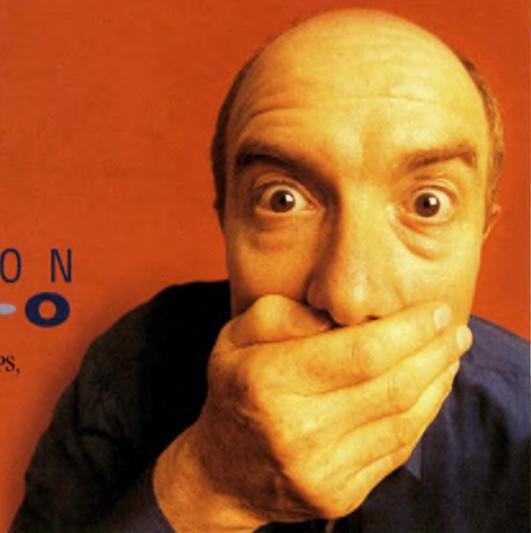
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# Vaessen BOX Loudspeaker

by Roy Gregory

There are relatively few companies who really build loudspeakers. To do so means making and finishing the cabinets, building the cross-overs and designing and manufacturing your own drivers, and that's the exclusive preserve of a few, really big companies. And even they might well buy in components for some of their cheaper models.

As a result, most of the smaller and more specialist designs on the market are sort of identikit assemblies of OEM parts. Generally the cabinets and drivers come from specialist suppliers, while the assembly, crossover and cabling are done in house. Nothing wrong with that. It allows small companies access to technology and techniques they normally couldn't hope to afford, but it's a situation that also leads those companies to try and stress their difference: Their drivers always seem to be 'special versions' or 'designed to our unique specification' or 'heavily modified'. In fact, you only have to look at how many of the super expensive flagship designs on the market rely on Focal's inverted ceramic dome tweeter to see both why they go to such pains and why most of the claims are guilty of exaggeration if not downright invention. The degree to which you can alter the performance of an established design (or indeed the degree to which it's actually sensible to

do so) is strictly limited. You can decide to omit the ferrofluid damping (or add to it), alter the number of windings on the voice coil, or work on the venting of the magnet assembly and absorbing the rear wave. There's not a lot else you can do without completely altering the design or the balance of the elements within it. That makes such modifications into refinements rather than redesigns.

Imagine then how refreshing it is to meet a manufacturer who makes no bones about using off the shelf drivers and allowing their manufacturer to specify the appropriate crossover. The 4" bass mid units come from Visaton, as did the original tweeter, although that has now been changed for a 25mm silk dome unit from Scanspeak. Cone material is aluminium, coupled to a high power motor assembly, and the crossover employs polypropylene capacitors. It's a substantial construction that, unusually, only allows for single wiring. Above the terminals is positioned a massive and well-flared port. Reach inside (yes, it really is that big) and you'll find that it turns through 90 degrees inside the cabinet, making it even larger than it appears.

So much for the bits and pieces, what about the cabinets? This is where designer Koen Vaessen does his stuff, providing a massive MDF structure,

with a 30mm thick baffle and 25mm panels. It's a reassuringly solid lump when you pick it up, and surprisingly bulky when you first see it in the flesh. The carcass has huge radii on all of its edges which obviously helps to avoid unwanted diffraction from the front plate, but also makes a powerful styling statement. It's finished in grey Nextel paint, and the overall effect is really quite striking, with the silver cones and the textured baffle trim. It has to be said that Nextel hasn't had the happiest history in hi-fi; just ask Meridian. However, its tendency to stain when repeatedly handled and the difficulty in cleaning or refinishing it is much less relevant to a speaker than an amplifier, and if the BOX's post modern appearance appeals then I wouldn't have too many qualms. Personally I really like the way they look, but as appearance is an entirely subjective judgement, I'll let you make up your own mind. But one thing that certainly isn't in question is the overall quality of the fit and finish. The Vaessens definitely look like the money.

Of course, you're going to have to provide some stands, and with its centrally positioned tweeter they're going to be taller than you might at first expect. Just as well then that the speakers are something of an aesthetic statement, because you'll

▶ not be tucking them away out of sight. I used the Garrick stone stands, which were an excellent sonic match but whose thick top-plate left a lot to be desired on the aesthetic front. Fortunately, Sean at Garrick makes everything to order, so radiussed or bevelled edges could easily be specified if required. I ended up with the baffles about 60cm out into the room, the speakers slightly toed in, but I'm blessed with a well behaved bottom end (at least that's what I'm told) which allowed this closer than normal positioning. Given the calibre of the port and its overall volume, the possibility for unpleasant interaction certainly exists, which in turn might dictate the wide open spaces for best results in some rooms. It'll be a case of suck it and see, but the saving grace is that the effort is well worthwhile.

The Vaessens spent a week and a bit playing to each other in the spare room by way of running in. Hauling them downstairs and plugging them in I was astonished by the immediate, crisp clarity of what is after all, an 85dB box. The life and dynamic range of the BOX is completely at odds with that measurement, reminding me of the Kharma Exquisite Reference in this respect. I suspect that the similarity is down to a couple of things. The massive construction of the cabinet combined with a simple crossover delivers excellent energy transfer,

making the micro dynamic response crisper than the competition. Combine that with a measured efficiency that is probably a rather more truthful average than the massaged peak figures used by some manufactures (efficiency



being the currently fashionable holy grail of loudspeaker design) and the result is rather a surprising performance that belies the paper specification. I used the Vaessens with the Monarchy Audio SM70, the JA30s and I heard them in New York on the end of the 47 Labs system, none of which can raise much of a smile above the 20 Watt level. Small, crisp and clean would seem

to be the order of the day, which is as much of a surprise to me as it probably is to you. Experience suggests that solid-state probably

Playing simple acoustic material (Eliza Gilkyson's *Beauty Way* Red House Records RHR CD146, and definitely a record to die for)

demonstrated not just the Vaessens' clarity but also their musical and rhythmic integrity. The toe tapping quality and ability to shift pace effortlessly between tracks as disparate as Thea Gilmore's *Throwing In* and Calexico's 'Tres Avisos' (*Bob Harris Presents... Volume Two* Assembly ASEMCD002) is indicative of the lack of cabinet honk or signature slowing and slurring proceedings with a thickening wedge of stored energy.

So, we know what the BOX doesn't add, what about what it does. I've always been suspicious of metal drivers, all too often hearing a distinctive signature from speakers that employ them. Time moves on of course, and so does driver technology. The question is, has the Vaessen managed to overcome or at least ameliorate this tendency. Unfortunately, like most things in hi-fi, the answer is part yes, part no and part maybe. Taking Reference Recordings' wonderful disc of the *Appalachian Spring Suite* (Keith Clark and the Pacific Symphony Orch. RR22) as an example, the piano not surprisingly lacks the depth and sonority that you'd expect from a full bandwidth system. However, the woodwind voices and strings are beautifully separated, ▶

► present and believable. The first massed violin motif is full of brightness and energy, its purpose and direction clear. Was I concerned by the tonality? No, this recording typifies Keith Johnson's crystal clear sound, and if anything was going to reveal a problem then I thought that this would be it.

In fact, it was quite another record that pointed a finger. Piatigorsky's instrument (Dvorak *Cello Concerto*, RCA LSC-2490) has never had the body and richness of Starker's on Mercury, but even allowing for that, the Vaessens rob his Cello of some of its roundness and woody quality. The energy and vibrance of the bowing, the purpose (that word again!) in the playing is all there, but the instrument has a very slightly grey, papery quality. It's an effect that is exaggerated by really demanding passages that push the small amps close to clipping and into congestion. Apply a little more power and you sort things out, albeit at the price that normally accompanies larger amps. Personally I'd opt for the small amp route and accept the limitation on absolute volume levels (I was playing it pretty loud with dynamic full orchestral recordings). I'm confident they'd be perfectly acceptable in all but the most headbanging of households.

Where does that leave the coloration issue? It's there, and if you go looking you're going to find it, but that's not really the point. It's way down on early examples of metal cone technology, and speaking as someone who found those designs completely unacceptable, I'd have no problem living with the Vaessens. Part of that is down to the balance of overall virtues. This speaker's strengths are both musically more relevant and more than outweigh its weaknesses. The clarity they bring to proceedings, their musical coherence and the sense

they make of a performance allow the sort of communication that makes systems at once engaging and satisfying. As I write this they are playing in the listening room, and if the test of a system



is what it sounds like from the kitchen (or in this case the office) then this one passes with flying colours. Much of this is going to come down to matching. The Monarchy that's playing at present is no slouch when it comes to tonal colour, and both the Jadis and the 47 Labs excel in this area. This is the way to go, avoiding amps that sound dry and grey. The speakers add no weight so there's no need to over compensate with the electronics. Instead look for colour and agility.

In this the Vaessens are no different to any other component; they'll all only give of their best when carefully matched. But what makes

the BOX so interesting is its difference to most other speakers currently on the market. Its agenda is lodged clearly in the message rather than the wrapping. If you want a tonally rich standmounter with an exaggerated low frequency performance and a balance that favours weight at the expense of insight, then there are plenty to choose from.

The Vaessens have an almost flat earth obsession with communication and the sense in the music, and if the tonal cosmetics take a back seat, then it's not so far behind that the speakers can't carry it off.

It's an approach which might be rooted in an old fashioned philosophy, but it's none the worse for that, bringing a new twist to an established game. Come to think of it, I wonder what they'd sound like on the end of Naim 5 Series electronics? Hmm...



#### TECHNICAL SPECIFICATIONS

Type:	Two-way reflex loaded
Drivers - HF:	25mm Soft-dome
	LF: 2x 100mm Aluminium cones
Efficiency:	85dB
Bandwidth:	38Hz -30kHz $\pm$ 3dB
Impedance:	4 Ohms
Dimensions (WxD):	230 x 450 x 345mm
Finish:	Grey Nextel
Price:	£2800

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# Royd RR1 Loudspeaker

by Jason Hector

Which country do you live in? What room does your hi-fi sit in? If the answer to the first question is the UK then the law of averages says that the answer to the second is a lounge and a small lounge at that. And usually it has to be used for more than just listening to the hi-fi, so the last thing you want in this case is a huge pair of awkward loudspeakers eating up the available free space. What you need are a pair of loudspeakers that are diminutive, attractive, easy to site and yet manage to provide balanced and high quality music. Enter, and take a bow, the Royd RR1 loudspeaker.

Royd are a typical, small UK hi-fi company and they have been making loudspeakers for 21 years. Started and run by Joe Akroyd in Telford, Royd have always had a reputation for speakers that offer great sound quality at a sensible price. Joe was ready to retire at the start of the year when he cracked a problem he had been working on for some time. This inevitably led to the development of the new Revelation series, consisting of three models, the RR1, RR2 and RR3. These three loudspeakers do represent a change of tack for the company and a move to a higher market plane. This has allowed the Royd range to be rationalised down to just these three models. This review looks at the £799 baby of the range, the RR1

floor-stander.

I have a personal interest in these RR1 speakers as they are the descendants of the Minstrels that were my first pair of high quality speakers. A friend still uses that pair and they still sound great. Rest assured then that Royd products enjoy long working lives. In a similar manner to previous Royd speakers the Minstrels had a sound quality far beyond their price which meant that fed with a high quality source and amplifier the results could be spectacular. But unlike many components that perform this trick they were still relatively kind to lesser electronics, making them a great starter speaker as well as a good long term bet for the budding audiophile, capable as they were of showing the benefits of any subsequent upgrades.

The RR1 is a far more up market speaker than the Minstrel both in appearance and in price, but it shares similar external dimensions which must make it one of the smallest floor-standing speakers available. The box is an MDF carcass with bracing in the cabinet and a sloped front baffle, which should help time-align the drive units at the listening position. Unlike the Minstrel the cabinet backs are vertical. Or to put it another way, the front and back panel are not parallel, increasing the internal volume and

removing any internal standing wave modes in the cabinet which should help reduce distortion. With its rounded corners, cabinet detailing and choice of superior quality veneers this speaker is very attractive.

The RR1 is a two-way, side ported speaker using compound bass reflex loading, that according to Joe is what allows a heavily developed in-house Royd 5" bass/mid unit to produce so much good quality bass. And by good quality I don't just mean quantity! Yes these speakers go deep for their size, but what is more impressive is that the bass can play a tune (more on this later), something rarer than you might think in this price band. It's claimed that the compound bass reflex loading allows this through a reduction in the phase shifts found with normal reflex loading.

The bass/mid driver deserves some extra description as it is obviously key to the sound of the Revelation range, as well as a great achievement in its own right for such a small company, where you might expect them to just buy in a unit from the usual suspects. It is a new and much improved version of the driver found in previous Royds and makes use of composite multi-layer construction to make a very light and rigid cone capable of pretty long excursions without introducing distortion. The surface of the

► cone is uneven and this helps break up surface modes to further lower distortion levels. A Royd modified metal dome tweeter handles high frequencies and crosses over to the bass/mid using a slightly modified first order crossover. Joe has chosen this crossover with the aim of improving the phase response and therefore speed of the speaker. It is pretty obvious that Joe's design ethic is to get the temporal response right even at the expense of a perfectly flat frequency response, and I have to say that listening to the RR1 goes a long way toward justifying this approach.

The speaker is not terribly efficient at 87dB and seemed to enjoy the power of my Naim NAP250 and the Dynavector HX75 power amplifier I used for the review. But don't get the idea you need \$2000 of power amp on hand; they have retained much of the Minstrels' forgiving nature and they also sounded great with both a Naim Nait 5 and a Roksan Caspian.

Unfortunately the RR1 is a little unstable because of its small footprint and relatively low mass. This should only really be a problem if your children have a habit of pushing things to see what happens, or you have a largish dog, but to counter this Royd have produced what is best described as a heavy slipper. This optional (£65 for a pair) steel base bolts to the bottom spike holes of the RR1 and the speaker sits in and on it, with some small rubber bungs between the bottom of the speaker and the collar base. The slipper adds weight to the speaker and increases the footprint by dint of its well spaced spikes, thus increasing the stability. That said a St. Bernard or precocious child will still wreak havoc and I was not personally (and aesthetics are always

personal) enamoured of the look of these bases. They just don't quite fit with the quality of the rest of the speaker or its general style.

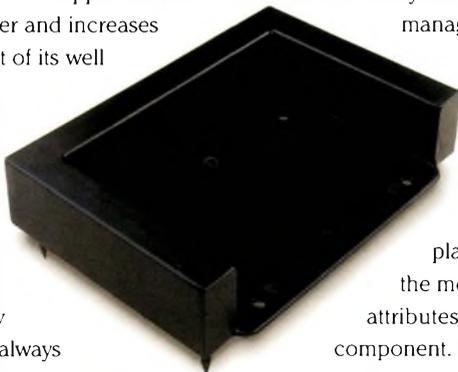
I would have preferred a simple plate; perhaps a slate slab could be substituted if you have similar misgivings.

I first heard the RR1's at the Bristol hi-fi show back in February and it was obvious that here was a special product. The Royd room was outperforming a great many others featuring much more expensive boxes; they had to be reviewed. So, did the RR1 continue to shine in a better environment? Well the simple answer is yes. One of the main strengths of these and previous Royd speakers is the quart out of a pint pot effect they seem to pull off, producing real bass from a diminutive cabinet. But what is really impressive is that this bass isn't bloated and slow and it certainly isn't woolly. Indeed these speakers time

extremely well, always managing to carry a tune. If you agree with me you'll rate timing and the ability to play in tune as the most important attributes for any hi-fi component. I don't demand

the flattest frequency response as long as the music is brought into the room. Linn Kans would be a good example here, an eminently musical and fun speaker but very, very inaccurate. I used a pair for two years post Minstrel. These little RR1's are a bit unusual, especially at the price. They manage the trick of making music but also being tonally correct and detailed, providing an open window onto the recording. Very low coloration is a hall-mark and the cabinet doesn't seem to contribute in the usual negative way at all; as you would expect, small surfaces vibrate less and are easier to control! Think of the RR1 as a high quality stand-mounted miniature, one that doesn't need stands, and you will be way on the way to understanding this speaker.

I found these speakers pretty relaxed when it came to position as well, and the side ports allow a degree of fine-tuning to match the room. That said they do still demonstrate the benefits of careful experimentation, preferring plenty of distance between them, but given their light weight its not a chore to try them in a few different locations. As it happened they ended up in the same position as the Shahinian Obelisks that usually grace this end of my system and like the Obelisks they filled the space between them without a hint of



▶ a hole in the middle of the image. I preferred the ports in but if they are like the Minstrels, ports out will be the order of the day in most rooms.

Lest you think this review is all praise I do have one or two complaints to make. The most important is the inclusion of a bi-wiring facility. At the bottom of the rear panel is the familiar four terminal panel, complete with gold shorting bars. I have never been a fan of this configuration and where possible I've overcome this by attaching two sets of plugs to my speaker leads so that I don't have to use the shorting bars. It's an arrangement that has always yielded superior results. Anyway, a similar cable trick was tried with the RR1 and yes, improvements were heard. However, on a visit to my dealer I had the chance to hear a pair of single wire RR1's (simply converted by attaching all the internal wires to one set of binding posts), and these were incontrovertibly better at playing music. Clearly, such a modification would invalidate your warranty, so I'm not suggesting you should do it, but under the circumstances it seems a shame that the option (and cost) of bi-wiring was included on this speaker. The comments in this review on the sound quality of these speakers are based on a pair of RR1 as sold by Royd (bi-wirable), but throughout the review listening I was using Naim NACA5 speaker cable with 4 plugs per side to avoid the shorting bars.

The only other serious limitation that become apparent in the course of listening was absolute loudness. If over driven they start to sound hard and I would recommend that if you have a large room or the need to play it really "neighbours at war" loud then the big brother RR2 could well be a better choice.

If you want to hear how rich a voice Johnny Cash has, just listen to the *Murder* album. Here we have some wonderful tracks and the RR1's simply

disappear. You know the drill; close your eyes and try to visualise where they are by ear. No chance with these speakers. But it's not just location, it's also speaker-signature you try to look for, and these speakers have very little of that.



The trick was repeated with Kathryn Williams and *Little Black Numbers* and the excellent Turin

Brakes, *The Optimist LP*.

In fact these speakers are very genre neutral and were happy with everything I threw at them. If I was being hypercritical I would say they are a little dry, but this is largely due to their lack of overhang. Provided the amp is man enough the speaker is capable of starting and stopping on the proverbial sixpence, dime or cent, take your pick.

Listening to *Dongs of Sevotion* by Smog we are more than aware of the multi-level interaction of the band. Track 6, 'Bloodflow', is a particular favourite. It is stark and the constantly changing tempo lends it atmosphere and tension.

When done properly it is captivating, but it's also a severe test, and on some systems it loses its way, just sounding boring. The RR1 was excellent here, sustaining the ebb and flow with aplomb. Okay, compared to the

Shahinian Obelisks they sound veiled, closed in, bandwidth limited and slightly slow, but this misses the point. The Obelisks cost over four times the price (a quart from a pint pot then maybe, but not a gallon!) and let's face it, the majority of RR1 owners aren't going to have them available for comparison. In isolation the little Royd is very hard to fault, but perhaps most importantly, it is always great fun to listen to.

The RR1 continues Royd's tradition of creating excellent speakers at affordable prices. Maybe it's prettier and not quite as affordable as early models, but I for one would be more than happy to own a pair, short of space or not! ▶+

\* After the review was completed, Royd informed us that they have changed the bi-wiring arrangement to internal hardwires that have to be cut to split the cross-over. This sounds like a much better solution to us. Ed.

#### TECHNICAL SPECIFICATIONS

Type:	Two-way compound reflex
Drivers - HF:	19mm Polymer dome
- LF:	125mm Multi-layer cone
Bandwidth:	28Hz - 20kHz $\pm$ 3dB
Impedance:	8 Ohms
Sensitivity:	83dB
Dimensions (WxHxD):	192x642x154mm
Finishes:	Cherry, Dark Apple Maple, Mahogany
Price:	£799-00

#### Manufacturer:

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# Magnum Dynalab MD100 Tuner

by Paul Messenger

I'm a radio fan, and happily, here in Britain, we're still blessed with a first class radio service, especially for those into classical music or speech, on the BBC's 'flagship' Radios 3 and 4. For my money, both these services well deserve the services of a top quality FM tuner, provided you're into their content and have access to a decent FM signal.

To my knowledge, Magnum Dynalab is the only tuner specialist on the planet. It's a well established company based in Ontario, Canada, has no connection whatsoever with a UK amplifier brand of similar name, and probably deserves wider recognition here in Britain.

The tuner we received was the MD100, which comes in a hands-on-only version at £1,500, or with an additional (retrofitable) remote control option at £1,800. These are high prices for any tuner, but the MD100 is actually one of Magnum Dynalab's less expensive models, sitting second up a four-rung hierarchy.

Since there's an MD102 for several hundred pounds more, and an MD108 complete with valves for more than £5,000, this MD100 can't really be expected to approach the state of Magnum Dynalab's art, though the £1,500/1,800 price tag demands serious performance.

The company makes great play of

the fact that its tuners are equipped with its own analogue front-ends, as distinct from the digital synthesis approach which is much more common these days. It doesn't entirely eschew digital techniques however - there's a microprocessor inside, presumably for the remote control, and the tuned frequency is indicated on a central orange illuminated numeric display. What you don't get are any fancy RDS data read-outs, not that you'd expect to find them on a tuner like this.

What is decidedly unusual is finding an analogue tuner equipped with remote control, over tuning and a handful of pre-sets. This may or may not matter to the reader, but it's something this reviewer has been looking to find for years.

Physical appearance is classic transatlantic traditional, combining a chunky thick alloy fascia with sheet steel casework. Ours came in matt black throughout, though fascias in silver or gold are listed options.

Either side of the frequency readout, two good size swing-needle meters dominate the fascia, indicating



signal strength/multipath and centre-tune. They're brightly enough illuminated to cope with daylight, if perhaps a shade too bright when the lights are down low.

A row of toggle switches perform a number of functions, though you may need a torch to figure out which does what. The rear panel has an

IEC mains input, an aerial input, and audio outputs. The aerial download needs an F-plug with screw thread (widely used for satellite receivers) rather than the traditional Belling Lee, while the audio out is on unbalanced phonos or balanced XLRs. There's also a small jack socket and toggle switch associated with the remote control.

Ergonomically this is a truly weird one, on first acquaintance at least, though it proved easy enough to get used to its idiosyncracies. Most remote control tuners will also respond to their front panel controls, but that's not the case here. With the MD100 you have an 'either/or-but-not-both' situation, ▶

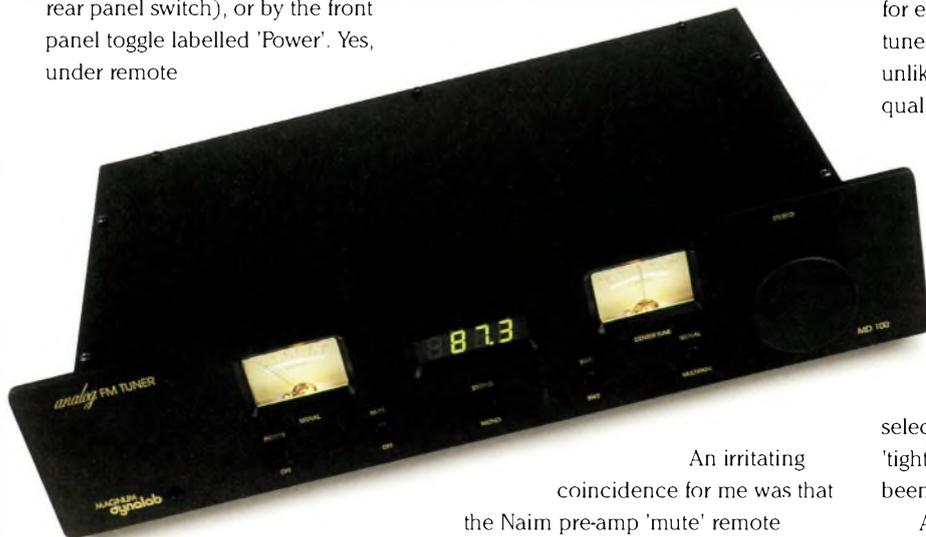
▶ depending on whether you switch the unit on from the handset (activated by a thoroughly confusing and ambiguous rear panel switch), or by the front panel toggle labelled 'Power'. Yes, under remote

the tuner jumps in and out of its normal muting without any additional disguise.

that signal and extract the maximum musical content, which is where the hi-fi bit really comes in. The requirements for each are significantly different, so a tuner with best RF performance is unlikely to come with the best sound quality, and vice versa.

I'm a hi-fi rather than a radio enthusiast, so I took it to a couple of the latter for extra views on the reception side. "Decent enough in content and performance, but nothing special" pretty well summed up their overall reaction. The variable selectivity was welcome, but a rather 'tighter' narrow band would have been preferred.

As is still all too often the case, the signal strength meter saturates much too early to be of much practical



operation.

Power is switched 'off'!

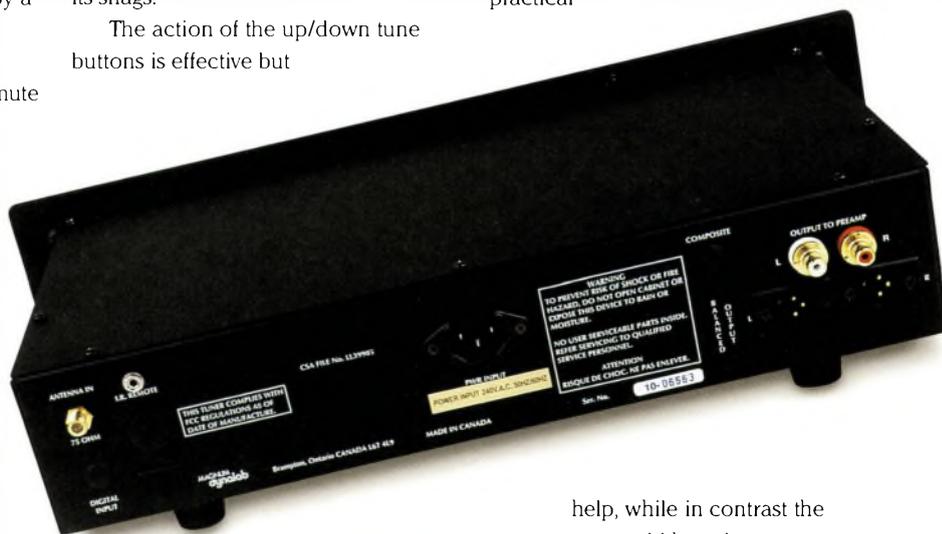
Fascia controls are dominated by a large tuning knob with a good analogue 'feel'. Besides the curious Power switch, there are toggles for mute on/off, mono/stereo, selectivity (disingenuously labelled BW1/BW2, since 'wide/narrow' is what's meant), and to switch the left hand meter between signal strength and multipath detection.

To enhance perceived value, specialist hi-fi makers tend to supply remote handsets which are either exceedingly complex, or unnecessarily heavy. Magnum Dynalab's example is a simple, compact but very hefty affair. It has seven buttons to perform nine tasks (so keep the manual handy), and while it performs as advertised, the reception angle for handset response seemed rather small.

There are five presets – ample in my book – though their volatile little memories get forgetful if power is interrupted. And switching from one to another is a 'pop'n'squelch' affair, as

An irritating coincidence for me was that the Naim pre-amp 'mute' remote command caused the MD100 to select pre-set 4 – remote control can have its snags!

The action of the up/down tune buttons is effective but



alarming, as the scan is accompanied by a loud mechanical clattering from the mechanism inside the tuner. Hardly slick, but entirely functional, the more so as tiny steps are available and also audibly detectable.

A hi-fi tuner has two quite separate tasks to perform. Helped by the antenna, it has to receive the signal, the whole signal and nothing but the signal from the airwaves. Then it has to take

help, while in contrast the centre-tune would have been more useful with rather greater sensitivity. Weak signals bring in a degree of mono blend and high frequency rolloff, which can become somewhat distracting when the signal is pulsing – the way it does when an aircraft passes across a long distance transmission path, for example.

However, long distance DX-ing will be irrelevant to the majority of hi-fi enthusiasts. Musical communication skill is the truly important bit, and here ▶

▶ the MD100 turned out to be a thoroughly impressive performer.

It had the good taste to arrive just as the Proms season was getting under way, and did an outstanding job of conveying the full richness and warmth of the Albert Hall experience. The whole scale of the sound seemed bigger and fuller than I was used to hearing, yet there was no trace of 'thickening' or 'heaviness' - it all sounded superbly natural and somehow 'right'.

My regular tuner for well over a decade has been a Naim NAT01, which has happily seen off all comers to date. By the end of one evening with the Magnum Dynalab, I was seriously contemplating its purchase, and not just because I've always wanted an analogue tuner with remote control. The Naim simply sounded a little thin and weedy by comparison. It did perhaps have a slight edge in delineating leading edges, which has always been a Naim strength, but also seemed to lack the body, the weight, the harmonic richness and the sheer dynamic literacy of the MD100 through the lower registers in particular.

Maybe this judgement was down to the relatively small and bright loudspeakers I had in the room at the time. I took the JMLab Micro Utopias out and brought the big Tannoy TD12s in, only to come to a broadly similar conclusion.

Magnum Dynalab's tuner sounds almost vinyl-like in its overall warmth and generosity of spirit, and I suspect that it is a quite deliberate strategy. Out of interest, I did a quick test using a small, good quality 1W 'local area' stereo FM transmitter, in order to compare the sound via the radio against a good quality source. The MD100 did a pretty decent job across the band, and seemed significantly sweeter than most at high frequencies, but it did also add a little extra low end weight, no question, which is not, strictly speaking, quite playing the hi-fi game.

But it's a small discrepancy, and one that in no way spoils the sound of this fine tuner. Nor is it sufficient account for the powerful sense of realism and authority that found me eager to select 'radio' in preference to other sources, for the scant few days

that the tuner was with me prior to copy deadline. Behaviour is the ultimate arbiter of one's true and subliminal reaction to a piece of hi-fi kit, and I was seriously discomfited (not to mention pissed off) when it was snatched away for photography - right at the height of the Proms season, forsooth! I'm missing it, as I write, and very much looking forward to the carrier bringing it back tomorrow.

The MD100 is a bit too oddball to be given an entirely clean bill of health. Its ergonomics are peculiar and certainly lack slickness. But the bottom line has got to be the performance, which is perfectly adequate in radio terms, and truly excellent from a musical point of view. And I still want one (though Branko is threatening to come down and seduce me with an MD102). And given the wealth of classy material still provided by Radio 3, I still reckon such a hefty investment in an FM tuner is well worthwhile. ▶

### Radio Times

Serious quality FM tuners are becoming something of an endangered species, for at least two perfectly logical reasons. FM radio is a very mature technology. Substantially unchanged since stereo was introduced back in the 1960s (apart from 'band-aids' like RDS data streaming), FM is currently threatened with the (in my view unlikely) possibility of being switched off at some (currently unspecified) future date, in favour of DAB digital radio.

The debate about the pluses and minuses of DAB is complex. Its proponents point to the lack of background noise, a wider choice of broadcasters, and the ability to 'switch off' some studio compression. Critics are

unhappy at the sonic repercussions of the MPEG digital data reduction techniques used, which mean that a DAB signal carries just one-third of the data used in a Nicam (TV sound) signal, and only one-sixth of the PCM signals used by Compact Disc. The other main criticism of radio today concerns the increasing amount of signal processing carried out by most of the broadcasters. Is it worth spending serious money to reproduce with increasing clarity the distortions and general unpleasantness of compressors and Optimods? Only the reader can decide, but the content of Radios 3 and 4 is still mostly clean, and of sufficiently high quality for yours truly.

### TECHNICAL SPECIFICATIONS

Type:	Remote Control Analogue FM Tuner
Input (aerial):	F-type
Outputs:	1pr Single-ended phono 1pr Balanced XLR
Dimensions (WxHxD):	483 x 114 x 330mm
Weight:	6.64 Kg
Finish:	Black (standard) Gold, or Silver (options)
Price:	£1500 (manual) £1800 (remote)

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Magnum Dynalab

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# The Naim Fraim

by Chris Thomas

It must be over 20 years ago that the Sound Organisation released their original single-level equipment stand and unwittingly heralded a new technology. Conceived and built originally for the Linn LP 12 turntable this little stand was the first real commercial attempt at marketing a support on the back of its sound quality. By today's standards it was not a great sounding device, but it did get the turntable off of the floor, bookcase, sideboard etc and in doing so provided a kind of reference platform and performance level which certainly made turntable upgrades easier to appreciate. The Sound Organisation table was a huge success and gradually a number of competitors entered the market, some with genuinely innovative products but mostly with loose copies of the original. After all, here was a technology whose products could be designed on the kitchen table and produced in the garage. You didn't need to know anything about electronics or make any substantial investment financially so out poured numerous weird and wonderful supports and some decidedly odd people with them. A combination of intuition and lightly informed guesswork, with no measurement and only a vague appreciation of the problems involved had produced most equipment supports of the time. Aesthetics were never a consideration so most of them were black and ugly, furthering the feeling of the time that nothing that looked beautiful could ever sound any good. But something exciting was most definitely happening, and as Compact Disc became a little more respectable we noticed that they

too were susceptible to the "stand effect". Everything in fact seemed performance-limited by the support it was being used on.

These days there is a more mature and informed technology devoted to equipment supports but only over the past few years are we really seeing investigation and a somewhat more scientific approach to an interesting phenomenon. The people who

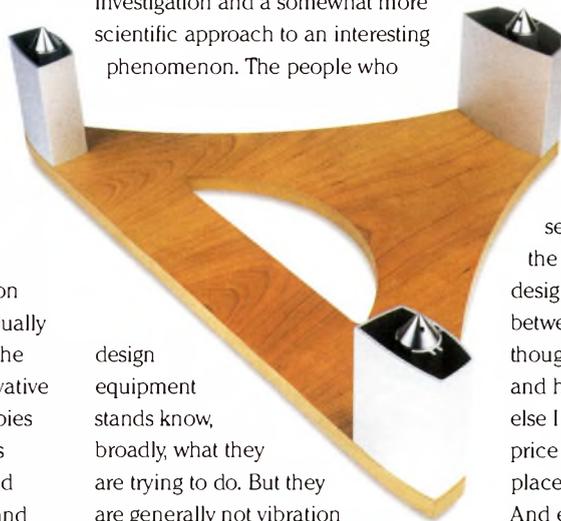
design equipment stands know, broadly, what they are trying to do. But they are generally not vibration analysts and as far as I know no really serious measurements have been done which would illustrate exactly what is happening between electronics and their supports and at what kind of levels or frequencies these interactions occur. It obviously has everything to do with the control of resonance, vibration and microphony and though, I too, am no vibration analyst it seems fairly clear that there are two main sources for sonically damaging resonance. Internal vibration, generated from transformers and perhaps other components and boards and external excitement from sound pressure levels from both loudspeakers and the world in general. Let's assume that these are both influential on internal components

that are, to some extent, microphonic. If this were the case then there would seem to be a couple of options open to the designer. Either damp these resonances or attempt to channel them to areas where they will have the least effect. Like the floor for instance.

The marketplace shows there is little uniformity of thought on these matters. The best equipment support I have heard is the 4-legged Aavik model that has solid titanium legs and wobbles about all over the place.

Structural rigidity here doesn't seem to be a consideration, in fact the Aavik has built-in levelling devices designed to provide loose couplings between shelves. What is amazing to me though is just how good this device is and how superior it sounds to anything else I have heard. The downside is a price that at £900 per shelf immediately places it out of most people's reach. And even those who could afford it will balk at such a premium, while paradoxically being glad to pay a small fortune for a pre-amplifier upgrade, which actually offers less of an overall musical improvement.

But the new kids on the equipment support block are none other than Naim Audio, who I suspect were so fed up with their customers asking which support they recommended that they decided to build one for themselves. As a company who probably do more live demonstrations around the country than any other, Naim have been through a number of supports though recently they seem to have settled on the Hutter range as their recommendation. It certainly does seem to offer their electronics a degree of tonal neutrality that is far ►

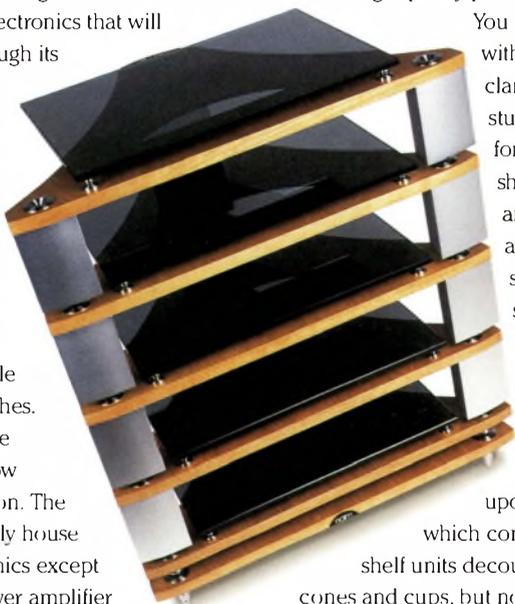


► preferable to the peaky response that others provide. But Naim desired something more. From the start they wanted a modular system so system upgrades would not mean support redundancy. It also had to look great. And, armed with their intimate knowledge of existing supports plus their increasing interest in the problems of microphony within their own electronics, they have recently introduced their own rather beautiful 3-legged resonance-control system and called it the Fraim.

The Fraim is designed to be used with all audio electronics that will fit its shelves though its dimensions are obviously predisposed toward Naim's own equipment. It uses stackable shelf units with two space sizes currently available of 4.1 and 10 inches. These spacers are made from hollow aluminium section. The smaller will snugly house all Naim electronics except the NAP 500 power amplifier that will need the larger aperture. Most non-Naim components should have no problem either though anything with a rack mount fascia may be a touch too wide. Like my Spectral preamplifier for instance which needs to be sited with its front panel either just in front or behind the aluminium uprights. I have a feeling though that to widen the Fraim's viability and appeal Naim may need to introduce an intermediate shelf gap of around 7 inches.

The best way to understand the Fraim is to look at its component pieces and how they fit together. Each shelf is an MDF unit available in several different finishes and featuring a Naim logo-shaped cut-out to reduce mass and give vibrational energy less of an easy route.

Upon each shelf sits a 10mm glass sheet decoupled from the MDF by 3 small ball bearings sitting in their own sockets. These shelf levels stack on top of each other via some impressive metal hardware that is about as far away from the oily black spikes and nuts that you usually find on Hi-Fi furniture as you could get. It's the quality and superb finish of these custom fittings that immediately catches the eye and gives the fully assembled Fraim such a high quality precision look.



You are supplied with cups, clamping rings, studs and cones for each of the shelf's 3 corners and once assembled the shelves are stacked and the Fraim assembled. Each rack though must sit upon a base-unit, which comprises two shelf units decoupled by cones and cups, but no spacers.

This means that if you are going to split your rack, perhaps to house a separate power amplifier, you will need a base unit for each stand. Assembly and installation are absolutely critical to wringing the best from the Fraim and having built and dismantled one several times there are a few golden rules. Firstly, mount all the corner hardware to the individual shelf units and do it firmly. The Fraim is designed so as not to require any shelf levelling between the modules, only the base unit should

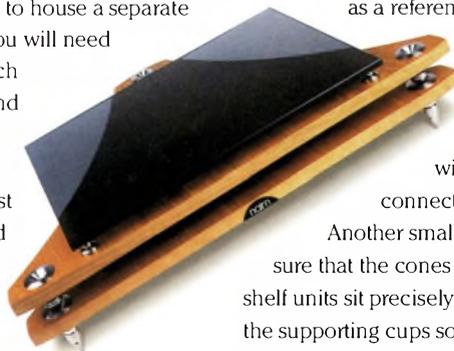
ever be adjusted. Next site the bottom of the twin base units using its 3 large floor spikes (by the time you read this Naim will have protectors for wooden flooring available though I used some neat little discs from



Michell Engineering). Now, make



sure that you get the base absolutely level (be fanatical about this - close enough just won't do!) before tightening the spikes. You are then ready to build the rack up and, if you have done a good enough job on the base, the whole unit should remain level, right the way to the top shelf. And if it does need adjustment it will be the merest tweak of one spike on the base unit. Even with the Fraim fully loaded this is easily achieved with the supplied spanner and Tommy bar. When you sit each glass on top of the bearings tap the centre of the pane with a combination of soft finger pad and nail. You are looking for a definite ringing note, not a dull thud. The actual note should be a B, or close to it and if you don't hear it remove the glass, polish the balls and you will. Site the equipment and dress the cables as you build, but be careful as there is so little friction between the glass and the balls that the shelf will definitely slide around. Naim have cleverly supplied a positioning rod at the rear of each shelf to use as a reference point but the



overhangs are small and you will need to grip the equipment with one hand while connecting the cables.

Another small tip is to make sure that the cones between the shelf units sit precisely in the middle of the supporting cups so you achieve a genuine single-point interface at each corner. Finally, when the installation is complete, pull each of the glass shelves away from the rods so they are only connected to the MDF section by the ball bearings. Once assembled and loaded the Fraim will need between

► I and 2 days to sound focussed so don't make snap judgements. Getting the installation right is not difficult and once you do, the Fraim will amaze you.

If you have an all Naim set-up you may well feel that you are hearing your system properly for the first time. There is, initially, a feeling of solidity and strength plus a sense that the system is now very firmly grounded, with a broader and more useable bandwidth. The bass seems to have gained half an octave but is far more fluid and mobile. It starts and stops quicker and has much more impact, grip and authority. Tonally the mid-band is a revelation. I have never thought of Naim electronics as being particularly warm or colourful. Incisive and to the point, yes, but perhaps always a bit on the chilly side. The Fraim gives me the feeling that the amplifiers and CD players have undergone a character change as they now sound richer and more tonally poised. I noticed this, particularly on pianos, immediately I began listening, as the sense of the note's shape and character was stunning. As the key is struck the control of the attack is superb. There is no snatching or leading edge compression. Instead the note develops, grows harmonics and dies with grace and control. And during fast passages of play there is an undeniable feeling that the whole system is less stressed and more at ease within itself. Now notes don't run into each other with that resultant blurring and confusion that makes extended listening so tiring.

Where most supports give the impression that Naim electronics, when driven hard, are a little bright, a bit thin and slightly relentless at the top end the Fraim removes the breathlessness and evens out the tendency to shout. And when you start to push the system it does not grow hard and stressed until you have reached much greater levels

than you are used to. The resolution here is so much better too, with an enormous improvement in subtlety and sophistication. Again you will be surprised at how much more relaxed the electronics seem and this has bearing on the rhythmic elements within the music. Now Naim have always made fast, dynamic sounding kit but, after listening to the Fraim, other support systems I have heard thin and compress the equipments' character so the sound becomes sharper and brighter, but leaner and less colourful. People often describe this as speed but listen to the Fraim and you will realise that speed is a liability without control and this is what this support is all about.

If you love Flamenco music, as I do, you are in for a treat as the full glory and impact of this special type of guitar imposes itself. Wild runs, where you hear the first and last notes with only a notion of what went on in between, are much easier to understand. You appreciate the relationship of the notes to the chord and the focussing of subtleties of the astonishing right hand technique is something I have seldom heard from any hi-fi system. The overall response of the electronics feels far more even and balanced with no exaggeration of any part of the bandwidth. You might even feel at first listening that the Fraim has a slightly laid back character but listen to the dynamic range of individual instruments and how, when they grow loud it is not at the expense of lower level instruments. Listen to the way that the system starts and stops and the lack of noise between the notes. I think you'll be convinced. It is just as impressive with other types of equipment too. With my Spectral preamplifier sitting between the CDS11 and its power supply on one rack and

a separate base supporting the DMA 100S power amplifier alongside, I have to say that this is the best I have ever heard my own system sound.

Whether the Naim is as good as the titanium-legged Aavik I can't say as so much time has elapsed since I had it at home, but it is certainly in the same ballpark and looks a whole lot better. This is an important product from Naim and, in its own way, is as impressive as any of their latest releases. Anybody who owns a Naim system should put it at the top of their list for the next upgrade and those who don't should think about doing the same. It sounds great, looks great and there's not a single 5-pin din plug to be found. ►+

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# Clearaudio Champion Turntable

by Peter Russell

You probably know Clearaudio better by their state of the art turntables, the Reference and Master Reference; statements of acrylic and brass audio sculpture together with their, to dream for, Insider cartridges. It is however comforting to know that they also have their feet firmly on the ground. This means that it is possible to step on the first rung towards Clearaudio Nirvana by experiencing their Champion turntable. The Champion enables you to dip not only your toe into the vinyl puddle but also your foot. You can either simply upgrade your existing tired turntable or embark on a course which will not only give you hours of pleasure but will also enable you to pursue an upgrade path if you are so inclined. For the audiophile who has been brought up on CD's or has a legacy of black vinyl forgotten in the bottom of a cupboard and is wondering if he should throw them away or make plastic plant pots out of them, then this deck may well be the answer he is looking for. Only too often the 'budget' turntables have to make compromises, which disappoint in their delivery and are gradually relegated to second place where they languish as a memory of what the black disc might have been. Fortunately there are a number of turntables that provide that glimpse of what vinyl can achieve and whet the appetite for more. The

Clearaudio Champion is one of them.

We are talking here of more than just a turntable chassis; the Champion comes as a complete package at a sufficiently attractive price to justify serious consideration given the savings if the component parts were to be purchased separately. Apart from the deck there is the Clearaudio Sigma cartridge and a modified Rega arm, record clamp and spare belts.

Once set up you need nothing else to spin the black stuff. As I mentioned above, those of you who have become accustomed to listening to their music via the silver disc will be both comfortable and familiar with the sound of the Champion.

All turntable/arms/cartridges have a sonic signature and this turntable is no exception. The first thing that strikes you is the clarity and precision that is immediately apparent. The music is presented in a deliberate and considered manner, with little doubt as to the message. Impact and energy are the hallmarks of this combination.

The Champion deck is both elegant and simple and in one sense presents

the essence of a non-suspended deck. A clear acrylic platform rests on three opaque acrylic pointed feet that screw into the underside of the base.

A frosted acrylic platter sits on a bearing assembly that in turn bolts to the base. The motor, in a separate housing, is placed in a cut out at one of the corners of the base to separate it from the plinth. There is a stepped pulley to facilitate change of speed. With the

Champion there is a visual integrity and thoughtfulness of design; from the flats on the feet that make tightening easy, to the juxtaposition of frosted and clear acrylic materials. Even the motor on/off rocker switch has a de rigueur

blue light to indicate electrical activity. All in all a lesson in simplicity executed with the minimum of fuss.

It is unlikely that you will have to assemble the deck yourself but positioning the arm is a breeze, just measure the distance from the bearing spindle and the crossed mouldings on the top of the arm and tighten the bolts holding the two acrylic plates which grip the arm mounting. ►



► One caution, as the manual mentions, it is important that the arm is not perfectly parallel with the sides of the turntable



base.

The reason for this is that the arm lift can interfere with the arm addressing the first few tracks of the LP. The OEM Rega arm comes in a gunmetal finish and with the superb Clearaudio cartridge tags, a small modification but one that makes fixing the Sigma cartridge into the headshell a painless activity. I am relieved to see that setting the VTA is a relatively straightforward operation. Only too often adjustment bolts are inaccessible or collars are so tight (or loose) that making fine adjustments become next to impossible. With the Clearaudio, spinning the arm in the threaded armboard until the required VTA is reached and then tightening the nut is fairly straightforward. All this can be done wearing the seemingly unavoidable these days, white cotton gloves.

All you now have to do is plug the integral phono lead into your preamp, lie back and enjoy the music. So what can you expect from the Champion package? I suppose that it all depends on what you are used to. If you are seeking the full and usually very coherent midrange, a soft bottom end and smooth and silky highs so often the

hallmark of tube amps and record players, then the Clearaudio will surprise and perhaps shock you into wondering what has happened. We all get accustomed to listening to our systems over extended periods of time and therefore the sound they create becomes familiar, like a comfortable pair of trainers or the chair you always sit in out of habit.

Breaking in a new pair of shoes takes time and patience; the same with a new piece of hi-fi. Our listening habits need to be challenged, if only for us to check out that our aural complacency has not become fixed in a recurring groove. As a reviewer this rarely happens, in fact the opposite is often the case. The fact that one listens to so much equipment means that one's reference points can become blurred even when one is able to make appropriate comparisons.

The Clearaudio Champion package did



exactly that for me: Within its price performance envelope, it made me review my analogue preferences and re-establish what it was that I respond to when I listened to my

favourite music.

I am particularly sensitive to the way in which the tonal colour of notes are presented, the timbre of an instrument and how this colour distinguishes one instrument from another. I have mentioned before the Fone recording, *I Violini di Cremona* in which Salvatore Accardo uses famous violins made by Amati, Guaneri and Stradivari to play compositions by

Kriesler. There are distinct tonal

differences between the violins as well as how the violinist phrases the pieces he is playing. On reference turntables the individual notes take on a complexity and reveal the harmonics inherent

in the construction of the sound box of each instrument.

The artist's approach and interpretation is made expressly clear with the tempo and timing in place. One is very much aware of the performer as well as the performance.

Playing these pieces on the Champion one is struck by the manner in which the leading edges of notes are presented; with real energy and precision. The attack is at times disconcerting, especially on piano pieces, but with strings the impact of the bow hitting the gut is arresting. This is nowhere more obvious than on virtuoso performances of Paganini where the speed and dexterity demanded of the performer can come over as a blur. This is

certainly not the case with the Clearaudio; here the listener is able to appreciate the virtuosity of the bowing as the detail is spread out in front of you. Whilst there may be a raised eyebrow at the timbral veracity of the presentation, which is sometimes

► sacrificed to the dramatic impact of the music, it is impossible to ignore its dynamic contrasts.

It is in the presentation of the human voice where the timbral parsimony is most apparent. With expressive singers like Billie Holliday and Ella Fitzgerald whose vocal range is emotionally demanding, the Clearaudio is not always comfortable or able to get the best out of the phrasing and content. It is not a question of missing detail but more a matter of the body of the voice being stripped of some of its resonance's. There is a lightness and edge where there should be weight and continuity. In recordings by Ute Lemper her voice is presented as being very much up front, her leading edge 'plosives' projected in front of the musical

listener to see into the music, to analyse its structure and identify the constituent parts of a performance. I think that you can make a distinction between how a piece of

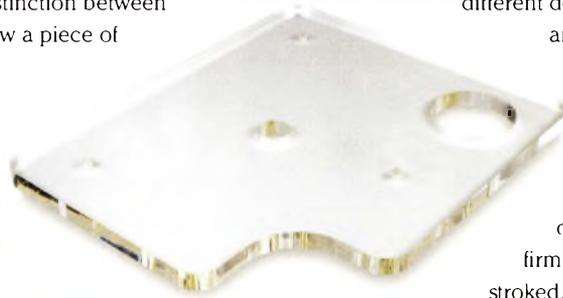
equipment engages the listener, especially in the case of turntables. Does it present the musical elements in such a manner that you become involved with the presentation? Are the key elements of resolution, spatial integrity, coherence, dynamic contrasts and tonal accuracy delineated sufficiently to create a believable experience? The Clearaudio certainly achieves that. It may not be the most emotionally satisfying experience but it leaves you in no doubt as to its purpose, to get your attention.

It would be very difficult to ignore this turntable, arm and cartridge combination and at a package price of £1,350 it has to be a serious contender for those considering replacing an elderly deck or looking for a first turntable. This is especially so given that there are a couple of upgrade routes available to the prospective purchaser. In the first instance the Level 1 upgrade provides an additional plinth and a heavy motor base whilst with Level 2 you get a more massive platter and arm mounting board. We will be exploring and reporting on these in a subsequent edition.

There are a number of excellent turntables that achieve such a level of price/performance that they actively demand attention. Recently we have also looked at the Project Perspective, a turntable that offers even more

attractive savings if bought as a package. The Champion and the Perspective both perform their function admirably but in very different ways; different design principles, arms and of course

cartridges. They also sound very different to each other. On the one hand you can be firmly seduced and stroked, whilst on the other you can be shook and surprised. You owe it to yourself to try to listen to them both, if only to discover where your audio preferences lie. ►+



framework  
as if she is  
standing in front

of, and separate from the musician. This projection, due largely to how the leading edge energy is handled, is a hallmark of the turntable.

Certainly in listening to complex orchestral passages, whether it be choral or instrumental, there is real drama and positional accuracy in the way the elements of the music are presented. In fact where this turntable excels is in its ability to allow the

#### TECHNICAL SPECIFICATIONS

##### Turntable:

Drive type: Belt  
Speed Adjustment: 33 1/3 and 45rpm  
Stepped pulley

Dimensions(WxHxD): 470x140x390mm

Weight: 7kg with motor

##### Tonearm:

Type: OEM RB300  
Modifications: Clearaudio Cartridge Tags  
Stainless Steel Parts  
VTA adjustable via  
armboard

##### Cartridge:

Type: Moving Coil with 24  
carat gold wire  
Tracking weight: 2.0gm to 2.8gm  
Output voltage: 0.6mV  
Internal impedance: 50ohms  
Stylus: TRIGON II  
Body: Fernambuk wood  
Price: £1350

##### UK Distributor:

Audio Reference  
Tel. (44)(0)1252-702705  
E-mail. [info@audioreference.co.uk](mailto:info@audioreference.co.uk)

##### Manufacturer:

Clearaudio Electronic GmbH  
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**lavardin**  
TECHNOLOGIES

VOLUME



# Lavardin IS Reference Integrated Amplifier

by Pete Christie

Do you ever get that feeling of déjà vu? You know – the feeling that you’ve been somewhere, or done something before? Well it does happen, and it’s just happened to me, in the shape of a slightly average looking amplifier that relatively recently redefined my hi-fi quality parameters, set my ears alight, and completely convinced me that I would never, ever, find any amplifier that could out-perform it.

Rule 1: Never say never!

If you take a peek at issue 10 (March/April 2001), you will find, on pages 86 – 89, some of my more enthusiastic ramblings on the subject of the Lavardin IS integrated amplifier. From this review, you would – quite correctly - have got the impression that, as far as I was concerned, the IS integrated was undoubtedly the finest 30 Watt amp known to man, and that it was significantly better than sliced bread – or unsliced, or toasted! I was content that, at last, I had discovered the audio Holy Grail, and all was well with the hi-fi world! The only problem with it was that I eventually had to give it back. I did put up a hell of a fight though, and it took four of them to wrest it from my grasp. One of them is still walking with a limp!

Then the IS Reference arrived. “Have a go with this” was the instruction from RG. “See if you think

it’s better than the last one. “Better than the last one?” Hmmm.

For the uninitiated, I will “crib” a few salient bits of information from the previous review, as to all intents and purposes, at least visually, the IS Reference is identical to the standard IS.

The Lavardin IS amplifier is made in France. It is not large - neither in physical proportion, or in rated power. It is black, and boasts as minimalist a design as you could possibly expect. Two knobs, a logo, four silver screw-heads (one in each corner)



and a red light - that’s it! The left-hand knob is a four-way selector switch, and the right-hand knob serves as the volume control. The centrally placed red light is, well, a red power lamp. The rear panel is not exactly over-crowded either. Five pairs of under-stated, though obviously high quality, gold plated phono sockets, a pair of 4mm speaker outlets, an IEC mains inlet and a power switch. Oh, and a label telling you what it is and who made it and so on.

As I said, there are four positions

on the selector switch – imaginatively labelled 1, 2, 3 and 4. Positions 1 – 3 are normal line-level inputs, and position 4 serves as a recording circuit with the corresponding input/output phono sockets suitably indicated on the rear panel. There is no “Tape Monitor” switch – if you want playback, you just go to number 4 on the selector knob. Simple or what? Oh, and by the way, there’s no remote control facility either.

The physical dimensions are fairly standard, the finish is good without being overly classy – for instance, its top panel tends to “ring” if it is tapped. There are only three feet underneath, and this surprised me a bit

when I made the mistake of leaning on one corner. I won’t do that again in a hurry! The power output is also fairly diminutive, rated at 30 Watts per channel into 8 Ohms, and there is no facility to

“bolt-on” an additional power amplifier. So, on the face of it, I’m looking at a slightly larger amp than, say, a Rotel RA931, with less facilities (and feet!). Why then will the Lavardin IS set you back £1500 (yes, fifteen hundred quid!)? That’s eight times as expensive as the little Rotel!

The Lavardin IS Reference weighs in at a further £800. Yup! £2295 for a fairly (let’s make that very) plain looking black box!

► And so, I was presented with an amplifier-sized cardboard box which I took home, unpacked, and began hooking up to my system.

Wife: "What's that then?"

Me: "Lavardin"

Wife: "I really liked that – is it ours?"

Me: "Nope. It's a different one."

Wife: "Doesn't look different."

That was true enough – in fact, the only discernible difference on the outside of the box was on the back, where someone had written "IS Reference" and the date of manufacture (21/2/01) in white crayon!

Normal service was interrupted by the arrival of number two son (No.2S).

No.2S: "Whoaaa! –

That "thing's" back – great!"

Wife: "It's not the same one"

No.2S: "Looks the same!"

Wife: "It's different"

No.2S: "Doesn't look different"

Wife: "Apparently it's a Reference."

No.2S: "What's that mean?"

Me: "It means that it looks the same, but it's different"

No.2S: "Cool! – a Reference, I'll get my Limp Bizkit CD!"

Me: " Oh, good!"

Normal service resumed, I continued in my task of connecting my Helios 2 CD Player, Quad FM4 Tuner, and Rogers LS3/5a's when plans were again interrupted by the arrival of number one son (No.1S)

No.1S: "Haven't you already done that one?"

Me/Wife/No.2S: "It's not the same one!"

No.1S (retreating): "Don't shout!"

Eventually, I achieved "hook-up"

and switched everything on. I inserted my copy of Joni Mitchells' *Blue* (DCC/Reprise GZS-1132), which just happened to be lying around. I selected track 9 'A Case of You', and sat back to see if a "Reference" could out-perform it's predecessor; or, more to the point, if I could manage to tell the difference relying merely on memory.

From the first note of guitar, I was immediately back in that state of aural Nirvana that the previous IS had left me in. Total realism and incredible, pinpoint soundstage accuracy.

When the vocal started,

Paul Simon's album *You're The One* (Warner Brothers 9362-47844-2)

The 1997 James Taylor album *Hourglass* (Columbia 487748-2).

Verdi's *Requiem*, with John Eliot Gardiner conducting the Orchestre Revolutionnaire et Romantique, with the Monteverdi Choir (Philips 442.142.2)

Lyle Lovett's album *Joshua Judges Ruth* (MCAD-10475).

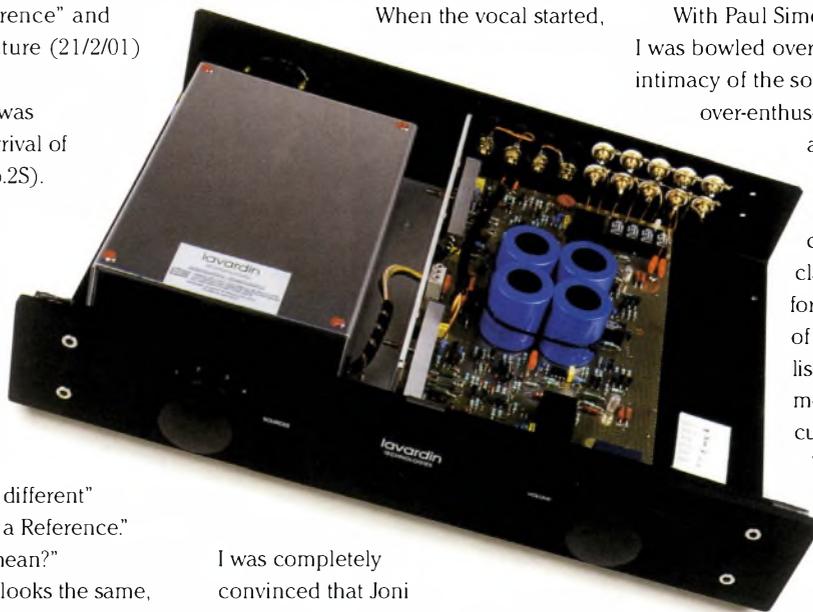
With Paul Simon, once again, I was bowled over by the complete intimacy of the sound. I really can't over-enthuse about this

amplifier. I am generally a cynical old git when it comes to most claims or reputations for this and that piece of hi-fi. I look and listen for sonic and mechanical "short-cuts" or compromises.

The final track on the album, 'Quiet', when played on this system constitutes the finest transition between the art of the

studio performer and the listener in the comfort and privacy of his own home. It is, in my opinion, a seamless, perfect vehicle to present not only the accuracy of the notes played and sung, but also the spiritual and emotional reason for playing and singing them. It was as though I had spent years looking at the Mona Lisa through a succession of tinted glasses, and at last, I had taken them off and actually seen the picture clearly for the first time.

I worked my way through the rest of the pieces, and each time, it was obvious that where the IS was



I was completely convinced that Joni Mitchell was standing in front of me. Spooky! So good that I played it again... and again. This was precisely the effect I experienced with the standard IS, only more so. The idea that this wonderful sound was actually being produced by a bunch of resistors, capacitors, transistors and other electronic gizmos was becoming increasingly difficult to comprehend.

Without doing an A-B test between the pair of them it was difficult to pinpoint the exact differences, so I retraced my steps and selected the same pieces of music from my collection so that at least I could be sure that it was a fair contest. These were:

► merely magnificent, the Reference was staggeringly stupendous. (I'm starting to sound a bit like a hi-fi reviewer more used to handing out stars than being quietly rational!) However, having been joined by Number Two Son, we were both up way past our bedtimes, with no intention of going anywhere.

Sure enough, the track selection inevitably came around to Limp Bizkit, so we played it! Awesome! Not exactly my first choice listening material, but the way the Lavardin handled all that

pure energy was certainly exhilarating. In fact, the question was asked: "Dad – can my mates come round and hear this please?" I think that's quite an achievement. Even with such wonderfully diabolical cacophony, the IS Reference managed to involve him, and surprisingly, me!

Inevitably, we got the royal command to desist from such extravagances, so No.2S departed and I continued albeit with a slightly more restrained selection of material. The passage that follows is once again copied from the original article, and again it's totally relevant:

The detail was stunning, - on everything! From simple arrangements for a few instruments (Debussy *Cello Sonata*, J.S. Bach *Partita* played on solo flute, Chopin *Sonata No. 3*), right up to massive orchestral pieces (e.g. the finale of Mahler's *2nd Symphony*), the overall effect was enthralling. In fact, it was almost frightening! Every instrument was identifiable. The soundstage was presented in front of me as clearly as if the musicians were in the same room.

And with Lyle Lovett, the results were just as extraordinary, only more so!

Listening to the track 'She's already made up her mind' presented

no problems. The production of this album, especially this particular song, can totally confuse many lesser systems. Not with this amp. The higher frequencies, cymbals, piano etc. came through with even more clarity and without any edginess. When I had finished playing the track, (for the third time) my



wife commented that for the first time, she had not only heard all the lyrics clearly, she'd also met the band!

Now, for £2300, you can buy a lot of hi-fi. You can buy something incredibly stylish, you can buy something that will set every room in your house rocking. You can get small stuff, big industrial stuff, or fairly flashy stuff. Or, you can get the Lavardin IS Reference. Possibly the most understated use of £2300 you can imagine. Yes it looks a bit, well, plain. If you are like me, that won't bother you. If you want to "get to know the band", and meet the conductor of the orchestra, and feel the tears rolling down Otis's face, buy one!

As you have probably guessed, I'm quite keen on this French masterpiece, and to sum up, I will re-write one of my closing paragraphs from my previous review:

I have listened to an awful lot of hi-fi in the last 17 years. I have had the pleasure to review a lot of hi-fi in the last three or four years. This is the second time I have ever been so completely and utterly impressed with any single piece of equipment. I like minimal. I don't care that it

doesn't have a remote control thingy. As far as I am concerned, lack of facilities equals lack of problems, and I can live with that. Four inputs is one more than I need, so that's no big deal. If you think I am going to readily give this amp back to the editor, you are making a big mistake. You want it Mr. Gregory – forget it, I'm already packed and moving away to adopt a new identity

in a far-off land where you and your swarthy henchman will never find me!



#### TECHNICAL SPECIFICATIONS

Inputs:	4 x pairs gold plated phono sockets Optional mm input (factory fitted in place of input no.4)
Input Selection:	Sealed Relays
Input Switching Contacts:	Gold, silver and palladium alloy
Nominal Power:	2 x 30 Watts RMS
Output Current:	2 x 10 Amps peak
Dimensions (HxWxD):	430x70x300mm
Weight:	6Kg
Price:	£2,295.00

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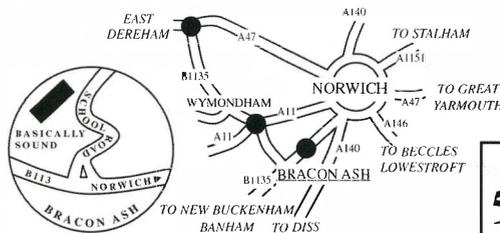
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read the review in this issue  
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# Hadcock GH242 SE Tonearm

by Roy Gregory

"If it ain't broke, don't fix it" is an aphorism that could be applied a little more diligently to the world of hi-fi, along with that other perennial chestnut, "There's nothing new under the sun". As an industry we seem to forget more than we ever learn about the art of making music in the home, and more often than not, each new miracle cure or product turns out to be some old, established idea or technology simply recycled and rebadged. Of course some of them never went away, they just shrank a little (or in some cases a lot) from the glare of the fashionable spotlight. The Hadcock arms are a classic example. Long declared dead and laid to rest in their UK home market, they have, nonetheless, soldiered happily along overseas. But what goes around comes around (never let it be said that I crossed the road to avoid a cliché) and the Hadcock is back, selling again in its native Isles.

Of course, whether or not you considered it "broke" in the first place depends on your point of view. Alongside SME, the Hadcock tonearms used to be amongst the most successful on the UK market. However, the advent of the LP12, and more importantly the Grace G707 and Linn Ittok arms saw a sea change in favour of gimballed bearings for use on the nervous suspended decks that rapidly became de rigeur. Uni-pivots, for such were the Hadcocks, craved rather more stability than they got from a lightweight three-point suspended sub-chassis, and their performance suffered accordingly. Sensibly they emigrated to Germany and Japan, where high-mass decks still held

sway (or rather didn't, if you get my drift). Even a brief and probably ill-advised flirtation with fixed bearings in the GH220 couldn't stop the rot, and Hadcock all but disappeared from view. But fashion is nothing if not predictable, and yo these many years later, high-mass turntables and uni-pivot arms are back in vogue, even if the current incumbents

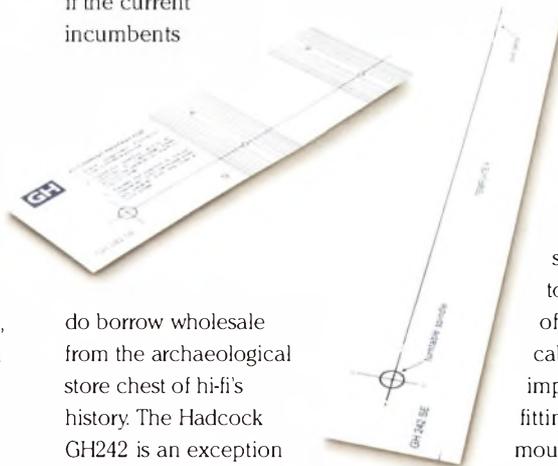
do borrow wholesale from the archaeological store chest of hi-fi's history. The Hadcock GH242 is an exception to that rule; it is hi-fi history.

If you don't believe me just take a look on page 95 of Hi-Fi Choice number 24. There you'll see the GH228 Export, a 9" dead-ringer for the 10" 242 I've got in front of me. Oh, there are differences. The 242 uses a stainless steel armtube rather than the aluminium alloy one on the 228, which also accounts for the change from black to the current chrome finish. This also increases the effective mass slightly, making the arm happier with today's lower compliance cartridges. However, the bearing and the mechanical structure of the arm are, to all intents and purposes, identical, so I guess that's where we should start.

The heart of the GH242 is its bearing. The upward pointing shaft sits in a deep, machined well. The cup

sits on this, surrounded by a narrow brass sleeve that sits around the shaft. Fill the well with silicon fluid or oil and you damp the arm's motion, the degree varying with the depth. It's a simple and much copied system, and that alone should be something of a recommendation.

The main bearing well is formed from the top of the arm pillar, which in turn slides in the standard locking collar arrangement. This is secured from below by a washer and a single nut. One nice touch is that both the nut and the washer are slotted so that you don't have to thread them the entire length of the substantial, fixed arm cable, itself a significant impediment to the ill-advised fitting of the Hadcock to a bouncy mount. The main pillar also supports the cueing platform and integral armrest. The armtube passes through the top cap, carrying the headshell at one end and the composite counterweights at the other. The platform that carries the cartridge is machined from a solid piece of aluminium, and is threaded to receive the supplied fixing screws, which is fine as long as you can reach the underside of your mounting holes. With the number of modern cartridges that use blind, threaded mounting holes this could be a problem, although I'm sure that Hadcock would happily supply a drilled out version and swapping it would be child's play. The headshell attaches to the main tube with a single grub screw that allows precise adjustment of overhang and



▶ azimuth. The main balance weight is also eccentric which allows fine-tuning of the azimuth once everything else is set-up. Down force is applied by winding in the smaller, concentric weight. Although crude graduations are provided, I'd strongly recommend the use of an accurate independent balance like the one supplied by The Cartridge Man. Bias is a simple falling weight.

of clarity. In fact, they sum up the whole arm. There's nothing new here (almost by definition), but it's carefully considered and executed. My only material criticisms of the package on offer here are the imprecision of the VTA adjustment (a fault shared with almost all its competition) and the quality of the

for the underdog.

Before I get immersed in the finer aspects of its sonic character, it's worth spending a moment on the Hadcock's operational niceties. Mounting the arm on the Clearlight Recovery (I used an SME type adapter base, but generally you'd use a single hole similar to the Rega approach which would probably improve performance slightly) proved



Apart from the stainless steel structure, the other big change in the arm is the wiring arrangement. The signal wires leave the side of the armtube just in front of the top cap, and are terminated with a small, four pin, inline connector which mates with a socket in the cueing platform. This means that you can remove the entire cartridge, armtube and counterweight assembly intact, allowing you to run more than one cartridge if you so choose (although reattaching the bias thread is a bit of a fiddle). The change comes underneath the platform. What used to be a nasty tangle of loose wiring is now concealed beneath a tidy alloy cover. It might sound like a small thing but it improves the appearance and presentation of the arm no end.

Assembly and set-up is straight forward, and the supplied mounting and alignment templates are models

arm lead. There is a silver internal wiring option which I'll report on in due course, but I'd like to see something like the Incognito cable, at least as another option. That and some much, much better cartridge tags rather than the Rega look-a-likes fitted would lift its performance another notch.

Ah yes, its performance.

The GH242 had the unenviable task of stepping into the shoes vacated by my VPI JMW 12.5, a 12" uni-pivot that costs about three times the price of the Hadcock. Under the circumstances, it handled a potentially difficult situation with aplomb, offering a different but in many respects equally valid view of musical events. Score one

to be perfectly straight forward, and alignment and set-up, contrary to legend, was equally trouble free. Okay, so it might seem fiddly compared with something like the SME 5, but in practice, the ability to remove the arm completely for cartridge mounting more than makes up for the wobbly bearing, while the smooth sliding counterweights and adjustable headshell make getting cartridge alignment spot-on a piece of cake. Use the supplied protractor and a good stylus balance and you'll have no problems at all. Finally, I must mention the cueing, which is dead straight and sensibly quick in action - just the way it should be.

I ran the Hadcock with the Ortofon MC7500, about as awkward a moving-coil as it's ever likely to meet, and the rather more forgiving (in mechanical terms at least) Cartridge Man Music Maker II. Even with the low compliance

▶ and heavy mass of the Ortofon, the 242 was happy without damping, although it's nice to have the option. Adding a touch of oil helped bass definition and texture but at the expense of some of the midrange life and verve. On balance I decided to leave the bearing au naturelle, especially with the Grado based Music Maker.

Playing the Analogue Audio Association's pressing of the Dvorak *String Quintet* reveals the Hadcock's character perfectly. The presentation is quick, open and lively. The opening notes on the double bass are deep and tuneful, but lack the resonant quality that comes from the slow draw of bow on strings. In contrast, the other instrumental voices are full of life and vigour, the darting interplay of the violins carrying the melody forward. The instruments are beautifully separated in space, although this transparency tends to fade as you reach the deeper recesses of the soundstage. In comparison, the JMW offers better definition of the acoustic space and a gentler but more organic presentation. As such the two arms sit at opposite ends of the sonic spectrum. I guess you pay your money and take your choice.

Brass on the 242 has a refreshing blatt and impact, but also reveals the arm's leaning toward the almost silvery, yang side of the tonal spectrum. It's a tendency that narrows the tonal gap between instrumental character, instead favouring the energy and dynamic envelope of the playing. 'Blues in Hoss' Flat' (Count Basie *Chairman of the Board* SRCP3008) opens with the jaunty horn blasts that set the tempo before down-

shifting to a quieter middle section which pushes Freddie Green's rhythm guitar into the spotlight. The Hadcock's transparency unerringly fastens on the instrument, whilst its fleet rhythmic integrity maintains a tempo that most other arms allow to slip with the drop in energy levels. Basie's masterful prods happen right on cue, the piano crisp and percussive.

The Hadcock was happiest with the Music Maker, a combination that made the most of the cartridge's tonal



and organic qualities, creating a potent cocktail with the 242's dynamic life and transparency. Together they are capable of challenging (and occasionally embarrassing) the musical virtues of many a highly touted and extortionately priced combination. Deeply unfashionable (a moving-iron cartridge in an unashamedly dated tonearm) they more than make up in performance what they lack in audiophile credibility. Many a vaunted arm has struggled to decipher the dense mix of Neil Young's *Sleeps With Angels*. The Hadcock might skate over some of the more excessive bass abuse, but the diction and separation of the vocals is never in question. Midrange is where the music is, and it's what the 242 excels at.

If you rate musical performance and access above camera finish: if your hi-fi is there to play music rather than to impress yourself or your mates: above all, if you choose equipment with your ears rather

than your eyes, then you should check out the Hadcock GH242 SE. It used to be difficult to recommend a sensible and cost effective upgrade from the Rega. Not anymore.

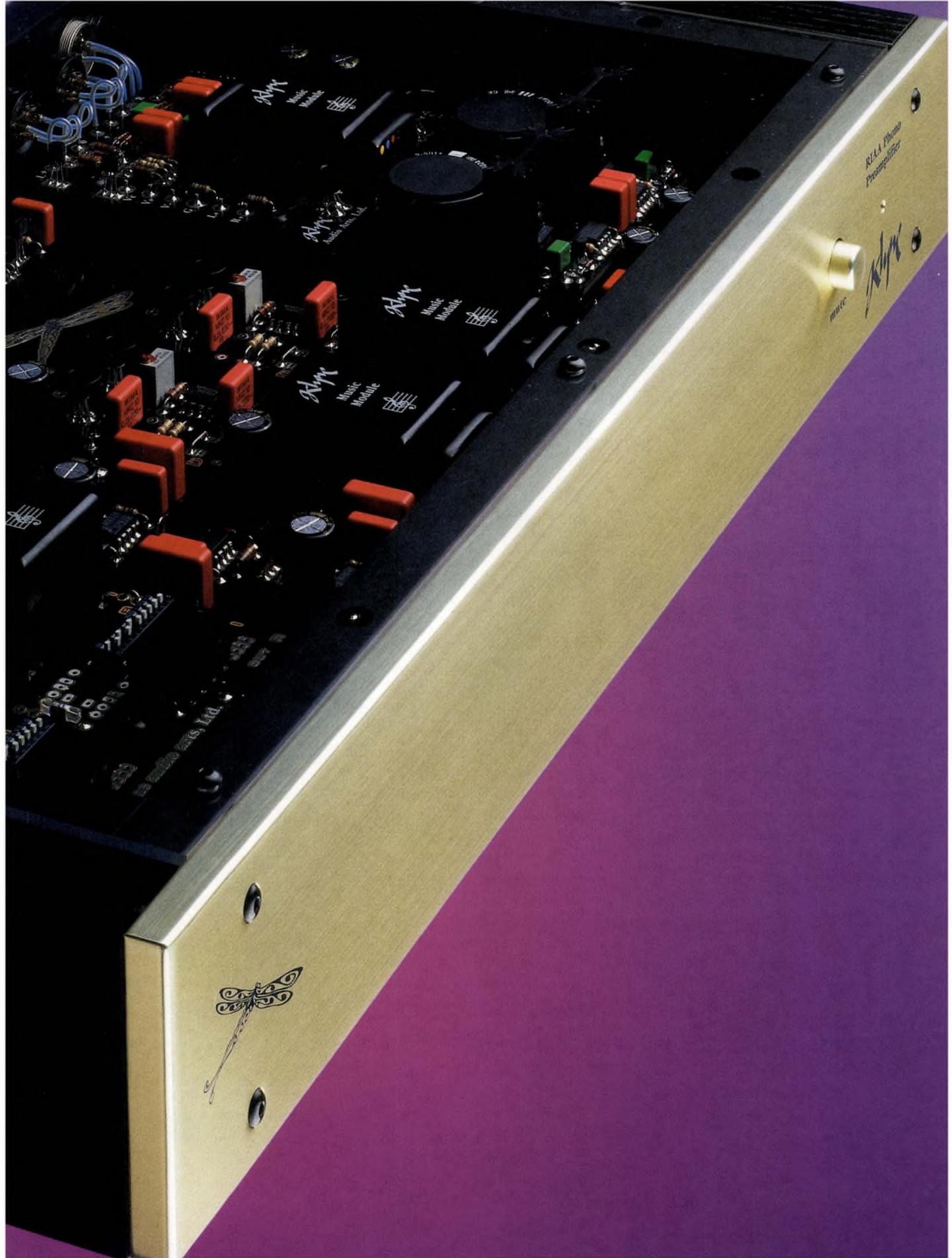
On the right deck and loaded with the right cartridge the Hadcock offers performance and musical integrity way beyond its price. Not as pretty as a Morch or as solid as an SME 309, it outperforms either when it comes to delivering the essence of a musical performance. They say you can't teach an old dog new tricks. On the evidence of the GH242, perhaps you don't need to. ➤

#### TECHNICAL SPECIFICATIONS

Type:	Damped Uni-pivot
Effective Length:	243.8mm
Effective Mass:	6.5g
Cartridge Mass:	3 - 12g
Finish:	Chrome
Price:	£639-73

#### UK Distributor:

The Cartridge Man  
Tel/Fax: (44)(0)208-688-6565  
Net: [www.thecartridgeman.com](http://www.thecartridgeman.com)



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# Klyne 7PX3.5 Phono Pre-amplifier

by Peter Russell

Those of you with long memories may well recall the days when separate phono stages meant that you were dealing with only the best. This was a time when all pre-amplifiers had built in phono stages, usually with both MM and MC inputs. But if you aspired to the best that you could get then stand alone phonostages were the way to go. For some who chose MM only tube pre-amps (as in the Japanese high-end), then the step up transformer was the other alternative. In either case the ultimate phonostage offered not only the ability to select various levels of gain but also impedance and capacitance to match a variety of cartridges and the rest of the elements in the signal path. This flexibility, available in some preamplifiers with built in phono stages, soon disappeared with the audio verisimilitude promised by the digital revolution. It did reappear as the expectations of the numerically emasculated digital formats failed to deliver their original promise, but only to a limited degree. Perhaps it was because of a convergence between the plug and play simplicity of the CD player and the relative complexity and expertise involved in analogue, which resulted in most phono stages being offered with minimal flexibility. In a way, attempting

to get the best out of vinyl by making it a convenience activity is condemning it to mediocrity.

It would be impossible to level the description of mediocrity at the Klyne either in build quality or in the performance it delivers. You are able to enjoy the component



count and its visual display by electing to indulge in audio voyeurism via the clear plastic top plate. Alternatively you could keep it all hidden with the alternative metal plate supplied. I think that if it were me I would want to be reminded of the aerospace grade components and the elegance of the component layout on a regular basis. Products sporting the dragonfly logo have always been built with both quality of construction and sonic performance as their goal. As such they have stood side by side with Threshold and Mark Levinson as well as more recently, FM Acoustic in providing the discerning analogue enthusiast with the flexibility they deserve. The idea that you can build a universal phonostage with one gain and one impedance setting is

misplaced. Very few people stick with one cartridge all their analogue life anyway. The market for high-end phono stages may well be shrinking, but it is also becoming more discerning.

There aren't too many state of the art phono stage combinations that demand our attention, certainly not with the obvious commitment to build and component quality as well as flexibility.

It may come as a surprise to most people to realise that Klyne make only a line stage and a phonostage and have always limited their product range to these two components. For a company to stick to its knitting for such a long time is a testament to, not only their conviction that this is where their future lies, but their focus in harnessing what they do best in pursuit of a very particular niche market.

The 7PV3.5 phono preamplifier is a slim, elegant, nineteen inch box. With its lacquered black ash side cheeks, platinum gold front plate and single on/off button, it presents an aura of finesse and substance that is reinforced by the internal construction and quality of componentry. It has its own separate power supply with an on/off switch, which can be sited well away from the main chassis. At the rear of the phonostage there is provision for balanced and SE out as well as a tape out, which enables

▶ you to record directly onto cd or tape. At the other end of the back plate are the phono in and ground post. That's all there is to it. At least that's all you can see. It is inside the body and underneath of the unit where things start to get interesting.

Attached to the underside of the casing is a half-inch thick Corian base plate with dimples recessed into it. This allows you to insert a number of small rubber looking elastomer balls. These 'Isobearings' are claimed to be able to absorb large amounts of vibrational energy transmitted through the Corian flotation pad. The number of these balls depends on whether the phono stage is positioned on top of the partnering line stage or if it is used as a stand alone phono stage as it was for this review. I have to admit that I did prefer the Klyne resting on cone feet rather than on its balls. This may have something to do with the fact that I was using a BCD stand that has half inch laminated glass shelves. With the balls in use the general presentation was somewhat veiled and in complex passages there was a smearing of the detail, whilst on its feet it was able to dance with the best of them.

Inside the chassis there is real beauty in the way in which the boards are constructed. The quality and attention to detail is the best that you can get. The first thing that you notice are the five 'music module' blocks which hide proprietary circuits designed to optimise the tonal and harmonic character of the music. Each block has the characteristic Klyne signature and the music stave denoting its function. The next to catch your attention are the rows of dipswitches, two sets for each channel. These allow the user to set the gain at 36dB, 50dB or 64dB depending on the output of the cartridge. Choosing the incorrect gain setting will have a significant effect on

the performance of the cartridge; too low and its signal to noise ratio will be compromised, too high, clipping and distortion will result. In use, when I set the gain too low, but compensated with the gain on the preamplifier, the dramatic contrasts were audibly compromised with a lot of the life and energy removed from the performance.

The other set of dipswitches enable you to adjust the cartridge loading and incorporate Klyne's unique approach to cartridge matching. By resetting a row of ten dipswitches per channel you can either select a loading, which approximates with the Cartridge manufacturer's recommendations; 75,100,300,500,1000 or 47k Ohms (or combinations there of) or engage the high frequency contour feature, which is peculiar to the Klyne phono stage. This is intended to address the question of the high-end frequency response of many of today's MC cartridges, with its characteristic rising top end. As far as the user is concerned,



which high frequency setting is engaged will depend on the cartridge being used, and the resolution of the accompanying system. The manual provides guidelines for various cartridges.

The manufacturer claims that his aim in designing the phono stage is "to emphasise musical naturalness

rather than overly dramatic 'Hi-Fi' sound with exaggerated definition'." This is exactly what it does; there is a musical integrity to the way the Klyne presents the performance, whether we are talking about a large orchestral piece, an intimate ensemble or a close miked vocal. The ability to reveal the structure of complex music such as Stravinsky's *Rite of Spring* enables the listener to see into and appreciate the relationship between the component parts in a new way. This integrity often translates into creating a different response in the listener, engaging us in responding emotionally to the music rather than analysing it in a more detached manner. When listening to the Klyne I rarely paused to question what it was that I was missing. The test for me of a believable performance, live or otherwise, is the extent to which the music makes me ask the question, how not what.

How am I responding to what

I hear and not why am

I responding to what

I hear? The difference

is not insignificant.

When listening to

a good jazz

ensemble like

the Pawnshop

albums one is

constantly

reminded

of the sheer

amount of energy

transmitted through the brass

instruments. Anyone who has spent

any time listening to live jazz combos

will know exactly what I mean, and

I do not mean in a concert hall.

I am talking about in more intimate

settings where the players are about

20 feet away. Music can shock the

system into attention; it is difficult

to ignore a horn player fifteen feet

away. It is equally difficult to ignore

what the Klyne can do. This presence

and presentation of scale is a funda-

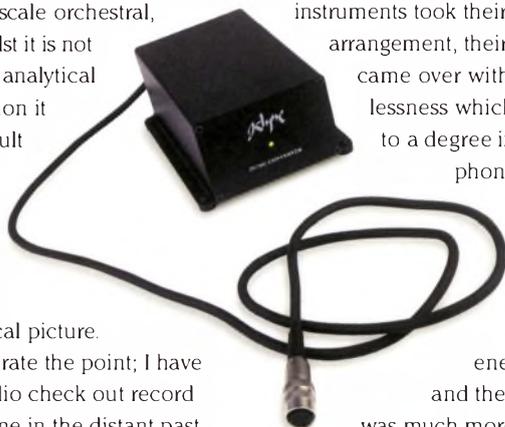
mental part of believability and ▶

▶ engagement in what we are hearing. Without it we are merely observers set apart from the performance. Through the Klyne, with the HF contour disengaged, the palpability of small-scale jazz and early ensemble music was emotionally satisfying. Timbre was reproduced in such a way that you were able to clearly distinguish between violins and violas, oboes and clarinets. This ability to represent the difference between 'voices' in the orchestra was equally apparent in the large choral works as in Lassus or later Gregorian chant.

With the Klyne I ran through most of my favourite recordings; female vocal, electronic instrumental, acoustic baroque, large scale orchestral, and opera. Whilst it is not the last word in analytical detail or precision it would be difficult to better its ability to create a coherent and emotionally satisfying musical picture.

To demonstrate the point; I have a Japanese Audio check out record bought sometime in the distant past in Oxford. It consists of two discs, one that presents all the instruments of the orchestra both singly and in combination, whilst the other has a range of compositions; jazz, vocal, orchestral, pop etc. some are close miked, others are mixed down or recorded in a natural acoustic. At the end of the last side there is an arrangement of 'Bridge Over Troubled Water' involving a full orchestra. I have used these discs on numerous occasions to try to analyse what I was hearing in a component or system and did so with the Klyne. With the last track

I actually forgot to engage the left-brain and just experienced what was being presented. It was only afterwards that I analysed what it was that the Klyne was actually doing, after I had played the piece through the 47Labs phono-cube,



the Counterpoint Claritas and the Mark Levinson 25S. The sheer scale of the orchestra stretched right across the room and as each group of instruments took their place in the arrangement, their interplay came over with a seamlessness which was absent to a degree in the other phonostages. Whilst the 47Lab was able to present a more accurate energy spectrum and the Counterpoint was much more transparent and revealing, the Klyne had a coherence and scale that was difficult to ignore and oh so easy to be seduced by.

Nearly all my listening was with the High Frequency Contour disengaged. With the Contour 'in' strings sometimes sounded emasculated, brass strident and the lower registers slightly smeared; the believability in the performance was occasionally thrown into doubt and it was only too easy to be distracted from the music. It may well be that by under damping the cartridge and putting a high frequency filter to attenuate

a rising frequency response, the lower/mid band is not sufficiently controlled and therefore becomes somewhat compromised. In other systems and with different cartridges, the results may well be preferred. At least Stan Klyne has thought about this and offered you the choice.

There is no question that the Klyne phonostage will, for most of us, be an aspirational product. With its to-die-for build quality, gorgeous looks, unique flexibility and emotional engagement; it is one of the few products that I will miss plugging my phono leads into. ➤

#### TECHNICAL SPECIFICATIONS

Type:	MC to Line Phono amplifier
Gain:	Adjustable at 36,50, or 64dB
Input Imp:	Adjustable from 100 to 47K
Capacitance:	150pF
Output Imp:	300 Ohms
Bandwidth:	0.5Hz to 150kHz
Dimensions (WxHxD):	483x63.5x280mm
Weight - pre-amp	5.5kg
- power supply	1.5kg
Price - 7Pxe	£4,450
- Flotation Pad	£360

#### UK Distributor:

Wollaton Audio  
Tel. (44)(0)1159-284147  
Fax. (44)(0)1159-280625  
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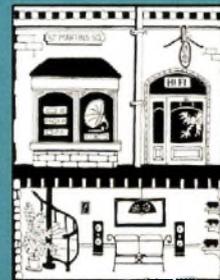
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# Vibrapod Isolators

by Roy Gregory

Putting stodgy stuff under your equipment is hardly new or revolutionary. Long before it went all hi-tech with Mission and Sorbothane (and yes they did get there before Audioquest – first using the material to decouple the counterweight in the original John Bicht designed 774 tonearm) people were putting everything from felt to the mats from Mini footwells under their precious components in an effort to improve the sound. Of course, the opposite tendency is to go for rigid coupling via spikes, cones or such like. However, not everybody likes or needs the focus and edge that these supports lend the sound. Indeed, there's a strong suspicion that some of that sharpening comes from concentrating energy into a series of spikes that hype the leading edges of the notes. Whether that's the case or not, there's no doubt that using soft, absorptive supports offers a warmer and more rounded presentation which its advocates would doubtless describe as more natural.

In fact, I've always welcomed the very obvious variety of benefits on offer, and there's no doubt that most equipment will display a marked preference for one or other of the two different approaches. But things are hotting up in the whole area of equipment support, the close couplers going for new and exotic materials like

titanium, while lossy supports have finally gone the whole hog and resorted to air cushions. The problem is that Aavik titanium racks and the Townshend Seismic stands don't come cheap, which makes the emergence of cost effective



alternatives such as RDC all the more important. But just as Clearlight have demonstrated a more sophisticated approach and application of materials in both the hard and soft realms of system support, so too have the competition. Enter then the Vibrapods.

At first glance they don't look too different from any of the other black Sorbo-something blobs on offer from a number of sources. However, the Vibrapods actually work in a completely different way. Rather than using the material itself to absorb energy, their complex curved profile creates a sprung suspension that thus isolates the component. The 'pods themselves are moulded out of soft vinyl, which means you need to be

a bit careful what you stand them on, but if in doubt, a disc of waxed paper or baking parchment between 'pod and surface will ensure no blemishes occur. The other thing of course is that, being springs, spring rate comes into the equation. Vibrapods are sold in sets of four, designed to support 2 to 3, 4 to 8, 8 to 12, 14 to 18 or 22 to 28lbs.

For heavier loads you can simply increase the number of the most resistant (Model 5) versions. Likewise, for products with assymetrical weight distribution, it might be necessary to mix and match different 'pod models.

The other thing that sets the 'pods apart is that, although you can set equipment directly on them, the manufacturer also recommends that you experiment with the construction of sandwich platforms, using MDF or similar boards, built into multiple layers. Of course, if you are going to take this route, the possibilities of various combinations of spring rate also enter the equation, making the results almost infinitely variable.

In order to stay sane I limited myself to investigating the 'pods used straight under equipment and in a double layer sandwich of similarly rated blobs. Under the Klimo Merlin valve pre-amp (supported on a single MDF board – the Vibrapods are only 14mm high, meaning they won't bypass the majority of equipment feet) the results were much as expected, with an increase in transparency and a blacker background to the music, especially off of record where the

▶ Klimo's valve moving magnet stage is working with tiny input signals. But the really interesting result came when I added a second set of feet and another board. This sandwich construction brought noticeable further benefits without any softening or loss of focus. Instrumental colours became more distinct, the space between and around the players that much better defined. Even in a single layer I'd still place the 'pods ahead of the blobby competition,

and up with RDC's tramoplins, offering the smoothness and tonal benefits of Sorbothane with much less softening or rounding of detail and dynamics.

Using the 'pods with solid-state electronics like the Monarchy Audio SM70 brought similar but slightly smaller gains, but again the double layer approach proved extremely beneficial. All of which makes the Vibrapods a worthwhile addition to

the isolation armoury. Next step, given the success I've enjoyed with Max's Seismic Speaker Platforms is to try the 'pods under some floorstanders. I'll let you know if it works.

For further information contact:

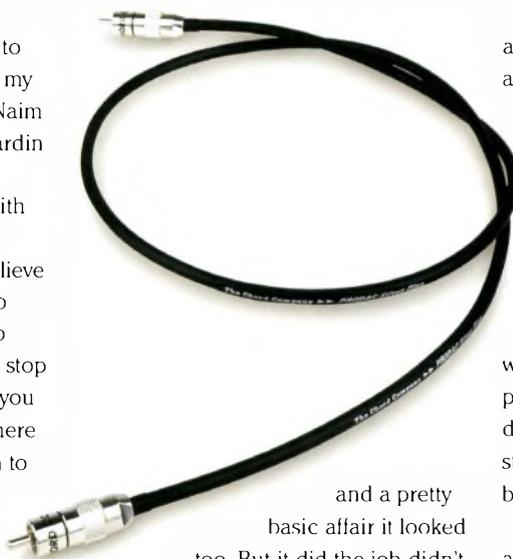
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# Chord Company Prodac Silver Plus

by Jason Hector

Recently I needed a custom cable to allow me to connect the output of my Naim Prefix phono stage to a non-Naim amplifier (the very impressive Lavardin IS Reference). My dedicated Naim cabling is, of course, terminated with various Din plugs, which makes it useless with anything else. If you believe Naim (and DNM), and who am I to argue, Din's are still the best way to connect components. This doesn't stop it being a royal pain in the neck if you want to mix and match at all. So there I was in urgent need of a 4 pin Din to two phono interconnect; and the obvious company to supply this? Well it has to be the Chord Company. During a chat to Nigel he managed to discover, in that gentle, this won't hurt a bit manner of his, that I hadn't given any thought to the digital cable that links my Micromega Duo CD transport to its matching Duo Pro DAC. The cable in residence was whatever arrived supplied with this combination when it was new,



and a pretty basic affair it looked too. But it did the job didn't it? You know, the DAC was locked, music often issued forth so I was happy. Now Nigel wasn't about to wade into a full Naim system and suggest I start swapping cables willy-nilly (probably didn't want to get involved with all those Din plugs), but a digital interconnect? Now that's fair game. So along with my Prefix lead appeared

a Chord Prodac Silver Plus. This cable, as the name suggests, consists of parts that feature silver; in this case the conductor, screen and plugs are all silver-plated. This continuity of conductor material is central to Chord's approach, and appears in most of their other products too. As with all Chord Company leads the standard of fit and finish is high, while in this case the cable itself is pretty rigid and feels like a solid core device, which means that at least it stays where you put it! So into the breach it went.

Now I wasn't expecting miracles, as usual I had fallen into the trap of having a small amount of dangerous information. Put simply I wasn't convinced that the digital interconnect cable would change things much at all (You have to make allowances for my training as an electrical engineer and my job as a research scientist). I couldn't have been more wrong. With the Prodac in place my CD ▶

▶ playing combo was elevated to a whole new level. This wasn't a subtle change. The Micromega combo had always impressed me with its musicality but I knew that compared to many more modern offerings it was veiled and lacked resolving power. Well not anymore. Where before bass instruments thrummed and wallowed, with plenty of weight but poor pitch and leading edge definition, now they were noticeably modulated. What had been a mass of ill defined energy filling the room, was now resolved into clear progressions of separate notes. Impressive stuff.

It wasn't just in the bass that this transformation took place, across the mid and into the treble the sense of space between notes and performers was seriously improved, making busy

tracks that much easy to understand, and sparse ones more poised and effective, more delicate and, well, beautiful. Musically that all important rhythmic intensity so beloved of Naim users was also helped through the increased detail removing the, for want of a better word, fuzziness from notes. It is imperative not to get too carried away here, these improvements are not so huge that a poor transport and DAC will outperform a good one but they are big enough to easily justify the cable's cost. They certainly breathed new life into my Micromega, allaying those nagging doubts that were beginning to trouble my mind. You know, the ones where you actually start reading CD player reviews. So a Prodac won't be the same as a whole new player, but it might well

alleviate the need to chop in your old two box player. Incidentally, it will also perform similar sterling work in A/V systems, connecting DVD players to processors. In the end this has been one of my happiest upgrades not because it is one of the biggest but because it was so unexpected. And the 4 pin din to Phonos that started this? That works perfectly too.

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# The Audio Analogue Maestro – Revisited

by Chris Binns

Some people don't hang around. In my review of the Maestro last issue, there were a couple of problems that I mentioned, notably that the protection circuit was, shall we say a little over enthusiastic for such a powerful amplifier. The manufacturers were aware of the problem, and promised that on future production samples this would not occur.

Less that a month later, importer UKD turned up on the doorstep with another sample, which I have quite happily been blasting the s\*\*t out of all

weekend. And no, I could not get it to trip out, regardless of programme material. More interestingly, it would



appear that my comments about the prolonged warm up time have been taken to heart, and a different type of reservoir capacitor are now

fitted, suggesting that the amp should come on song more quickly. Certainly I had no problems, and my impression was that the sound had gained some solidity over the earlier sample as a result, making it an even more attractive proposition. Like a said a hell of a lot of amp for the money.



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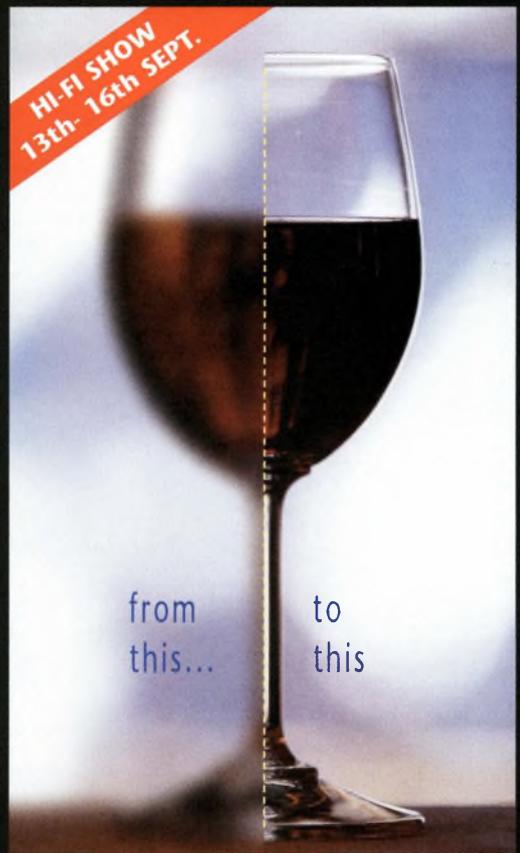
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# The Real Deal

## B&W DM303 Loudspeaker

by Roy Gregory

Speaker manufacturers have always fixated on the budget sector. Despite its hyper competitive nature which cuts profits to the bone, the sheer volume of the business, combined with the brand awareness that promotes, make it a vital consideration for any major player. If you can crack the "My First (Hi-Fi) Speaker" market, then you might not have invented a better mousetrap but the world will surely beat a path to your door.

But what makes a great budget speaker? Or to put it another way - what makes a budget speaker great? Well, there's no magic list of ingredients, no matter how much marketing men tell us otherwise. What there is, is a steady history of bargain basement speakers which have shown an ability, as unlikely as it is consistent, to perform musical feats out of all proportion with their cost, and to grow with better ancillaries. There's also a similar history of manufacturers who, having produced a killer starter model, failed miserably when it came to following it with something more expensive. The world is full of set-ups which retain those original speakers, long after the owner has said a fond

farewell to the rest of that first system.

The common factor that binds all budget designs together has nothing to do with the type of driver they use, or whether the cabinet is an MDF, chipboard or some mix of one or the other with plastic mouldings thrown into the equation. The single common factor,



obvious as it may seem, is price. Every starter design has

to be built on the tightest imaginable budget, just to hit its price point. It's a situation that gives the designer virtually no room for manoeuvre, and oddly enough, that's actually a good thing rather than bad. How so?

Let's look at the ingredients that he has to work with.

Let's start with the cabinet, the most expensive part of most loudspeakers. The price constraints mean that it can't be big, and can't employ complex (and expensive) bracing. The actual way that it's joined together has a major effect on its rigidity, but the real benefit comes from the small panels dictated by the small overall dimensions. Go back to the days when an eight inch, two-way was the accepted standard (products like the AR18 and KEF Coda 2 spring to mind) and this was less of a help, but nowadays the standard bass/mid driver is closer to five or six inches, which means narrower baffles and generally smaller dimensions. Of course, even though the price of entry level hi-fi speakers has doubled since the days of the AR18 and Coda 2 (£80 and £90 respectively, if memory serves) that fails to fully compensate for inflation, a fact which applies its own dimensional pressure.

Next there's the drivers. Fortunately we are dealing with a mature technology here. After all, people had bits of paper flapping around in boxes to produce sound long before hi-fi hove into view. Which means that we've got a pretty good idea how to build drive units these days, meaning that even the cheapest ones are capable of a remarkably good performance, given a



► modicum of care and attention to detail. If you are in a position to build your own then things start to get really interesting.

How about the crossover? If there is a root of all evil in loudspeaker design then this, surely is it. You either do it as carefully (for which read expensively) as possible, or you don't do it at all. Expensive is clearly out, as are single driver budget designs, at least if you want any kind of high frequency extension at all. Once again, price comes to our rescue, actually dictating that, whilst we can't get away with no crossover at all, what we do get is minimal in the extreme. Which in turn means that it does very little damage. Some would argue that it doesn't do a lot of good either, but we can achieve much the same job mechanically, as long as we accept that ultimate refinement isn't on the agenda (and believe me, at this price it isn't). Hence the advantage of being able to design your own drivers, dictating their mechanical roll-offs to match with as little electrical interference as possible. This is exactly what AR did with the 18, running the bass/mid driver wide open and using a simple capacitor/resistor network to bring in the tweeter above it.

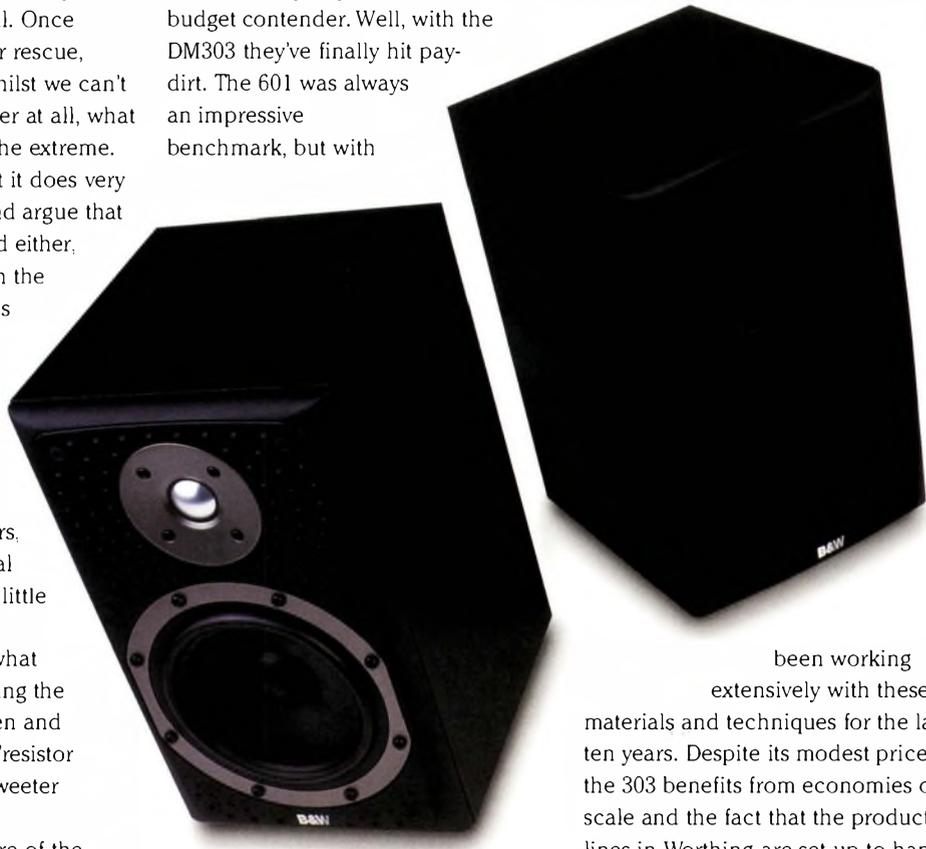
By now the lion's share of the budget is well and truly spent, which means that things like internal wadding tend to be minimal, if they're used at all. The end result is essentially undamped, mechanically or electrically, and tends to be less than refined. But what it does do is convey the energy and excitement in the music, and that makes it fun. Which is exactly why people are frequently only too happy to go on living with budget speakers long after the rest of the system has moved

onward and upward. All too often, more expensive speakers buy their refinement at the expense of reduced energy, with more intrusive crossovers, greater bandwidth and more neutral but less efficient drivers. The price is paid in terms of dynamic and musical integrity, and as regards musical enjoyment and communication, it's one we can ill afford.

Which brings us, finally, to B&W and their ongoing search for a serious budget contender. Well, with the DM303 they've finally hit pay-dirt. The 601 was always an impressive benchmark, but with

used in the company's other speakers. In this case the metal dome tweeter sports the now familiar transmission line termination and is coupled to yet another 160mm woven bass-mid unit, but this time the material is fibre glass rather than the more expensive Kevlar. Now neither of those obviously obeys my strictures about mature technology and basic materials,

however let's not forget that B&W have



a starting price of £200, now risen closer to £250, it was always in the next bracket up. The 303 comes in at £180, which might not seem like a lot less, but budget prices have risen too, and whilst it might not be the cheapest contender, it certainly makes the weight. It also wears the heritage of its more expensive brethren like a badge. The moulded baffle is pocked with B&W's signature dimples; the drivers share the themes of the ones

been working extensively with these materials and techniques for the last ten years. Despite its modest price, the 303 benefits from economies of scale and the fact that the production lines in Worthing are set up to handle exactly these types of material. The rear facing port, liberally spattered with Flowport dimples is part of a single neat moulding that also includes the single pair of terminals.

The overall effect is impressive. The quality of the materials, fit and finish all contribute to the impression of a much more expensive product than this really is. The styling is restrained enough to be classy without descending into the tarty. Overall it's an attractive and

► reassuringly solid package; one that you can approach with confidence. A confidence that is reinforced when you pick it up. The cabinet is refreshingly inert, and a far cry from the light and lively box that features on the majority of budget offerings. Thankfully B&W have resisted the temptation to go for near wall placing, and the dubious benefits of the bass reinforcement it provides. With a budget design, keeping the bass under control is quite difficult enough without adding to the problem while sacrificing stereo performance along the way.

Current budget incumbent at the palatial Plus Towers is the exuberant and entertaining KEF Cresta, and for once I'm going to make a direct comparison, because it cuts right to the heart of what the DM303 is about. Playing 'Heaven of Mine' (Stewboss *Wanted A Girl* Flying Sparks TDBC0055) the Crestas reward you with an enthusiastically upbeat presentation. The rolling subterranean bass line rolls, and if it provokes the KEFs' generous bass then at least it doesn't detract from the music. Shifting to the B&Ws immediately introduces an element of restraint. The boundlessly energetic romp of the KEFs has been reined in, and it's easy to feel a little cheated. But listen further and you'll notice that with that restraint comes an increase in control, definition and transparency. The tambourine is resolved into its individual rattles, the accordion sounds much more like itself, much less like the violin it could have been mistaken for on the Crestas. Add in a more distant perspective, slightly behind rather than slightly in front of the speakers, and better separation, and it becomes much easier to hear what has gone into the music as a whole, helped by the more even bass response. On this track there's no denying the infectious appeal of the KEF but it's also impossible to ignore

the additional layer of information and subtlety that the B&W brings to proceedings. Let's call this one a draw: Equal but different, if you like.

However, move onto more complex material and the balance of power shifts dramatically Debussy's *Iberia* - 'Par les rues et par les chemins' (Classic Records/Decca CSCD 6013) demonstrates the point perfectly. The DM303s present a nice, open and stable soundstage, integrating the orchestral sweeps and swells with the castanet embellishments. The music is whole and of a piece, revealing its impressionistic nature, the different, clashing orchestral voices retaining their all important structure and relationships, enabling the listener to make sense of what is going on. The KEF in comparison is suitably boisterous but its lack of control creates a welter of sound that is in danger of collapsing into cacophony. The essential structure is blurred and submerged, making the music meaningless, exactly as happens all too often on Gershwin's *American In Paris*. The bottom line here is that random street sounds are random. Incorporating them into a musical composition, or at least capturing their effect, requires considerable organisation. Lose that organisation and they do indeed become, well, random.

Perhaps this is an extreme, and extremely unkind, example, but it isolates the character of these two speakers perfectly. The KEF is great fun, but like an enthusiastic and slightly gangling teenager, it can get itself into trouble when presented with a sophisticated social occasion. The B&W might not offer the same overt appeal, but its greater musical maturity keeps it hanging in there longer when the going gets tough. Much of my listening involved the Densen Beat, but flirtations with the Lavardin IS Reference and even more

exotic electronics clearly showed its ability to grow with more expensive ancillaries. Like the KEF Coda 2, it never disappointed, but continued to amaze the more you offered it. Watch out for that 4.3 Ohm minimum impedance though. The DM303 will require a proper amplifier to deliver. Weak kneed pretenders should probably look elsewhere.

Interestingly enough, comparing the 303 to B&W's more expensive 601S2 shows just how carefully they've voiced their baby. The 601 is that much more refined and rather dryer in balance, making it that much less forgiving of budget electronics. The 303 is altogether more relaxed; just loose enough to have some fun, as one visitor put it.

The B&W DM303 represents a remarkably high tech package for the money, combined with fit, finish and styling that a lot of companies would be proud of at twice the price. Its balanced and even handed performance fulfil the requirements of its role perfectly, giving it the grace to grow combined with the energy to engage. If money is tight then look here first. Other designs might be superficially more exciting, but listen and you'll hear. The DM303 has got it right. 

#### TECHNICAL SPECIFICATIONS

Type:	Two-way reflex loaded
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LF:	160mm Woven fibre glass cone
Bandwidth $\pm 3\text{dB}$ :	72Hz - 30kHz
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# Dolly Varden

by Roy Gregory

Although Dolly Varden are a five piece outfit, it's the husband and wife team of Steve Dawson and Diane Christiansen who, as principal songwriters and standout vocalists tend to hold centre stage. Despite the outstanding musical empathy that characterises the band, there seems little doubt as to who sets the agenda and defines its direction. The music is built around their lyrics, and more importantly, their voices. It's a style that is at once individual and constantly developing; one whose wit, intelligence and humour immediately captured my attention, leading to a long and convoluted search for their elusive albums. The music therein constituted ample reward for my efforts.

**RG.** I'm afraid that in our ignorance, we've barely heard of you guys over here. I first came across you on the Bob Harris sampler (reviewed in Issue 11), loved that track and tried to find the album. It was a long and fruitless search before I finally got hold of a copy of *Dumbest Magnets*. I'm glad to say that it's a lot easier to find your discs now. However, perhaps we should start by discussing where you've come from, what you do and how long you've been doing it for.

**SD.** We met in the late eighties in Chicago, at a recording session organised by a mutual friend. Diane is an artist and wasn't singing back then but somehow we both ended up doing backing vocals and we thought "hey, this is pretty good", and we really got on so we made arrangements to keep on singing and meeting and pretty soon we were doing a few small gigs, you know, jammed in the window of a bar. But we just seemed to keep adding musicians to the set-up, an upright bass, another guitar and pretty soon we'd outgrown the kind of bars we were playing in.

**DC.** At this point we were just playing with a beer pitcher out front for people to toss money in, and making some real cash. Even then there were people who'd travel all over to hear us play, and some of them follow the band even now.



**SD.** So around 1990 we actually named the band Stump The Host and started doing regular shows in clubs and around town. We got really good reviews in the Chicago press and by '92 we were getting offers from record companies, but that really shook up the band. We never set out with the intention to become some touring rock band, we just sort of grew organically.

**DC.** I don't think we had any intentions at all. It was all just fun to start with.

**SD.** Jim Powers from Minty Fresh records came to us to record a single, which we did, and then the whole band split about two weeks later. It all started to get too serious and difficult to deal with. We spent the rest of '93 and '94 knowing that we wanted to continue singing together but not really knowing the context in which to do it. Stump the Host was really pegged as a country band and neither of us really had that intention.

**RG.** One of the things that I think is most noticeable about *Dumbest Magnets* is the way in which it defies categorisation. You can't say "this is a country/rock album". It's very difficult to pin a label on it, and even more so if you consider it in a Chicago context, because this is not the music that Chicago is best known for. I am intrigued to know where it comes from.

**DC.** Well, I think that one thing was, that with the closure of our first band I started writing more. Steve and I started to have more influence.

**SD.** I was always into the singer/songwriter thing, and with the old band the sound of the band itself, particularly the guitar player, really defined things. With the break-up we had a clean slate. We knew we wanted to work together, and we knew we didn't want a country band. We wanted a pop influence in there, and something soulful as well, so we sought out musicians who are really open minded.

**RG.** There's everything in there, even Motown...



▷ **DC.** Oh, definitely.

**SD.** Especially at that time, we were probably listening to more soul records than country. I'm not saying I don't like country. I really do...

**DC.** And I listen to a lot of pop. I was looking at the pile of "just played" CDs recently and there was Lucinda Williams, Chico Martu, Marvin Gaye, George Jones, and Buck Owens and then there was something electronic, and I was looking at this mix and thinking, How could these two people make music together?

**RG.** One thing that stood out a mile when I first heard your music was the voices, but more importantly, the relationship between them. Although they sing harmonies, they are not straight, expected harmonies. They come and go at unexpected moments and the harmonies themselves aren't exactly straight Everly Brothers. It's almost as if the two voices are singing off of each other: only slightly but enough to really stand the music apart. Was that an intentional thing with the formation of Dolly Varden?

**SD.** That's when it happened but it was more of an evolutionary thing; more a case of we don't like that, let's try something else.

**DC.** The other thing is that we have a very sharing relationship, a very equivalent relationship. There are no prescribed roles, either in our marriage, or with our children, and that equality carries over to the band and our singing. It's not like one person is leading or dictating. The other thing that happens is that we swap places. I go on the bottom and Steve sings on top and that creates a really great resonance.

**SD.** Well. I like to sing high and she likes to sing low so we will be using that more.

**RG.** The choice of voice for a given song never seems to be the obvious one either, and sometimes it'll change half way through.

**SD.** That's conscious. If we find ourselves falling into a formula then we'll change things. Too much harmony and we'll change to unison just to shake things up. After you've been singing together for twelve years you need to keep things interesting.

**RG.** How many albums have you done?

**SD.** *The Dumbest Magnets* and *The Thrill of Gravity* which you've got, and one prior to that which was called *Mouthful of Lies*. We got all the musicians together around the end of '94 and we just decided to make a record together in our house. That came out in '95 and it marks the beginning of Dolly Varden. We'd decided what we wanted to do and that album, which wasn't stylistically in any one place, was the first product of those intentions.

**RG.** And why Dolly Varden?

**SD.** Diane?

**DC.** Well your take on this and mine are slightly different. It's a fish from the North Western United States. When I was a kid we'd get in the car and go out to Wyoming and my Dad and my brother were always fishing and that was like the great white hope. They always wanted a Dolly Varden because it was so beautiful and so rare - the Holy Grail of fish. Because it got talked about so much in the house, it came to represent this desirable but unobtainable ideal.

**SD.** I grew up in the North West, and my Dad's a fly fisherman, so I got really into fishing and the Dolly Varden was just a great fish to catch.

**RG.** Over here, because nobody has heard of the band, when you play them the record they just assume it's a pun on Dolly Parton...

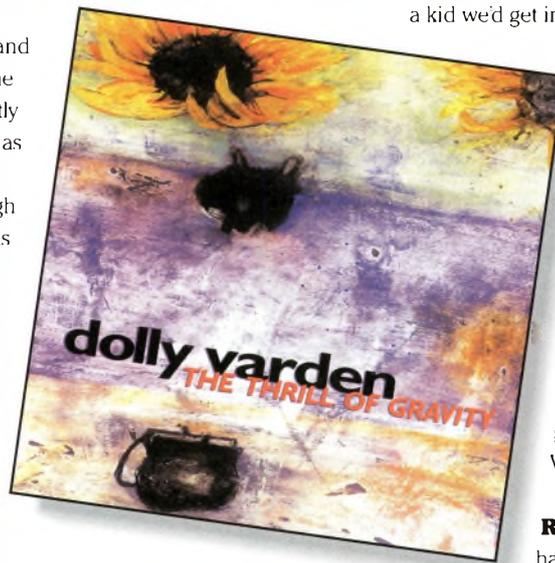
**SD.** Yeah, that's unfortunate.

**DC.** But the other thing is the Dickens thing. In *Barnaby Rudge*, Dolly Varden is this character who is very visible and beautiful but totally unavailable.

**SD.** She's identified by her clothes, these big, flowing, red-spotted dresses.

**DC.** So there's all these things called Dolly Vardens. There are Dolly Varden dresses, a Dolly Varden cake, and they are all really showy, but also, in their own way, hard to catch.

**RG.** It seems to me that there's a clear progression through the albums, almost as if the essence of what you do is becoming more defined. I love the complexity and intelligence of the themes and lyrics, yet much of the material is far from traditional, for either pop or country music. How do you settle on your subjects?



► **SD.** Well I've been writing for a long time now, and my favourite songs are always the ones where you don't really know exactly what they are about, but there's enough there to let you experience what the person is feeling or going through.

**RG.** The lyrics are almost like a row of emotional snapshots, almost impressionistic...

**SD.** Yeah, exactly. Like the best songs that Joni Mitchell has written, or Paul Simon, where you listen again and again, and you find different ways that the words work within each other, so that they almost mould to your mood. Or even Bob Dylan's songs. You can go back to them again and again, there's so much to find in there. That's what I've always wanted to achieve with lyrics.

**RG.** One of things that becomes clear on *Dumbest Magnets* is that the musical arrangements are far less rigid, more in keeping with the lyrics...

**SD.** Brad helped us with that, Brad Jones (the producer of the disc).

**RG.** There's clearly a huge amount of care that's gone into the construction of the lyrics, the arrangement of the vocals; there's a deftness to the instrumentation. To what extent are you concerned that the production of the recording preserves that?

**DC.** We work really closely with him (Brad) - it's very much a co-operative venture.

**SD.** Do you mean are we concerned about the sonic, the audio quality?

**RG.** Yes, but not just that. Listening to a recording through your hi-fi or on a car radio is a completely different experience to hearing a band live. When you play live you are responsible for communicating your message to the audience, but with a recording you hand that responsibility over to somebody else, and sadly, a lot of recordings communicate very poorly.

**SD.** I'm a great fan of really well recorded records. I think Brad is a genius as an engineer. He's so unobtrusive. At this point we've worked with a lot of engineers, and they'll spend a huge amount of time fixating on getting slam out of the drum kit, having lots of assistants all running around doing

stuff. Brad is just one guy with a control booth and a single big space. Everything is set up live, played live; drums, vocals, the lot. He simply lets us go for a whole take, and then maybe he'll just tweak one thing and we'll go again, but he's so calm. It's always like "Okay, that was pretty good - can you hang on for a second and we'll go again".

**DC.** He looks to facilitate. He's like a wonderful therapist who brings out what you really want to say rather than imposing his own agenda.

**SD.** He's really artful, the way he just becomes part of the process. A lot of engineers actually try to control things. "You guys just go outside for a bit while we work on the drum sound". It isolates and separates the elements and momentum

of the session. Brad will just have one overhead mic on the drums, not even a separate one on the snare, and he'll balance everything by just making tiny shifts in the position of this one, beautiful forty year old microphone. The drummer in the band is probably the most concerned with sound quality. He has a great stereo and everything, and when he heard what was coming off this one mic he almost passed out.

**RG.** There's a wonderful deftness to the arrangements on the album, the relationship between the players. It's a quality that's missing from almost all heavily multi-miced recordings.

**SD.** Absolutely.

**DC.** We do record a lot of stuff live, which is what helps preserve that.

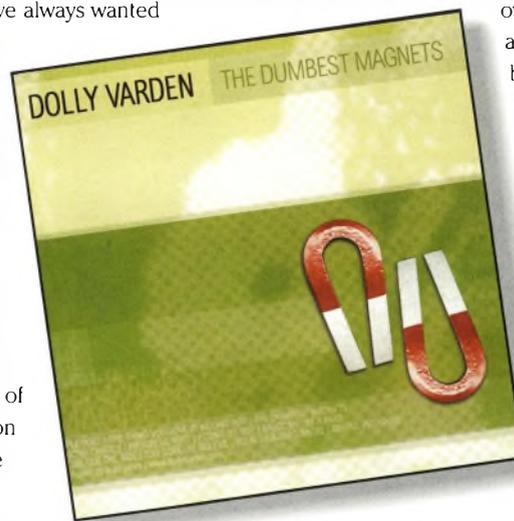
**SD.** He's very different in a lot of ways, but as an engineer that comes so naturally to him.

**RG.** It's a very old fashioned way of recording, and possibly all the better for it.

**DC.** Right.

**SD.** Some of those old records from the fifties and sixties sound great.

**DC.** In a lot of ways I think it's like the difference between experiencing something for real and creating it artificially by compartmentalising its elements and trying to reconstruct them. Culturally, a lot of the time we try to enhance experience by over complicating it when we'd actually get more by simplifying a little bit. I think that just comes really naturally to Brad. He's a very real person. Not a synthetic ►



▶ individual at all.

**SD.** The records that I love all come from the era when stuff was all recorded in a single room. Except for the later Beatles stuff, which they overdubbed all the crazy stuff on, but they were special anyway. We've never gone past eight tracks on any of our recordings. We really consider every overdub carefully. I remember on one song he (Brad) suggested this Harmonium part, and I was really, like, are you sure? We're all looking at each other and sort of scratching our heads and he says "Just do it...you'll see".

This was about the only time he ever really imposed himself on proceedings. So I played it, thinking this sounds so strange, and he put it all together in a rough mix and I'll be damned if it didn't sound beautiful. It's all down to balancing these little tiny things and it's so easy to get it wrong or swamp it.

**RG.** Another thing that's impressive about the albums, especially *Dumbest Magnets* is the way that each track sounds completely different to the last. There's a phenomenal range of textures and colours, yet you don't use a huge range of instruments or import a lot of effects.

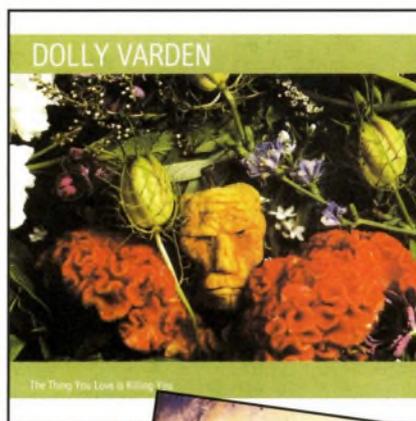
**DC.** I think a lot of that is down to Mark (Balleto) our guitarist. He manages to conjure so many different sounds from his instruments. He'll play the lap-steel with an e-bow and produce this heavenly sound that you'd never know came from the same instrument he was just playing on the song before.

**SD.** I've heard people say that they didn't think that live we'd be able to pull off all the textures that we do, but he's really got that sorted out. So it's a combination of Mark and Brad's production that gets it onto the records.

**DC.** Also each song has its own voice. I mean, some are mine and some are yours, so that mixes things up too.

**RG.** I actually find it quite shocking that we had to wait almost a year for the UK release of *Dumbest Magnets* and then on a small specialist label. Do you think that the big record labels are giving up on the adult audience?

**SD.** Yes... I think the record industry, certainly in the States is in a complete state of confusion.



**DC.** I don't think it's just the adult audience. I think they're giving up on the thinking audience. There were plenty of people around twenty (years old) at our show last night.

**RG.** Well, I nearly said intelligent audience...

**DC.** Oh, that's so snide... snide but true!! (laughs).

**SD.** The record companies have just about locked the doors on their A&R departments...

**DC.** They all just run around now sniffing their own asses...

**SD.** ...everything's run like a marketing department. Wait until someone strikes it big and then quickly jump on the bandwagon. They just make up a band to do whatever the "job" is. In the States, radio stations are becoming increasingly centrally owned, so that whole areas of the US are receiving the same pre-recorded shows, which plays into the hands of global marketing strategies. That's how you end up with Destiny's Child.

**RG.** So apart from getting out and playing, how does a band like Dolly Varden reach its audience.

**SD.** Well, we do have local public broadcast and college stations, and all they have to do is please their audience. DC. You don't have college stations over here? They are so important in the States. They actually form a counter culture. Screw the corporations, we're going to play what we want. Without that, real music would have died a long time ago.

Dolly Varden are on tour in the UK at the end of this month. Take the trouble to seek them out. This could be your last chance to see them in small venues, and believe me, it's well worth the effort!

Sept 30th	Cardiff	Chapter Arts Centre
Oct 1st	Leeds	New Roscoe Theatre
Oct 3rd	Nottingham	The Maze
Oct 4th	London	The Borderline
Oct 5th	Berwick	Barrells Alehouse
Oct 6th	Glasgow	13th Note



# Record Reviews

## How To Read Them

The information contained in the record reviews is presented in the following way. Albums are identified by label and serial number. Beneath this you will find one or more icons which denote the available formats for the recording. The first icon refers to the format reviewed.

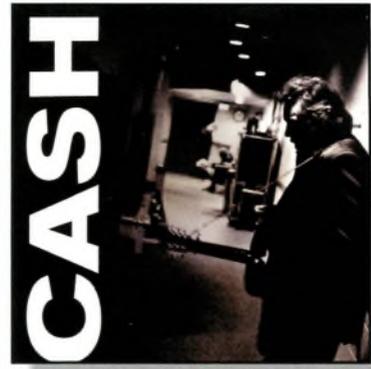
The ratings at the bottom of each review reflect the reviewer's opinion of the recording quality, and musical merits of the album. You'll soon realise that a great many musically significant albums offer less than wonderful sound. Don't let it put you off! For your information the scale rates a standard, good quality pop recording as slightly below average.

The reviewers are identified by their initials.

They are:- Chris Binns, Pete Christie, Dave Davies, Roy Gregory, Jason Hector, James Michael Hughes, Jon Maple, Reuben Parry, Dave Ayers, Andrew Hobbs, Chris Thomas, Mark Childs.

### Key to Icons

-  CD
-  Gold CD
-  HDCD
-  XRCD
-  Double Disc
-  SACD
-  120g LP
-  150g LP
-  180g LP
-  Availability As S/H LP
-  Vinyl Double Album



Johnny Cash

### Cash

American C69691



The elder statesman of American country proves conclusively that he's still got it. The stylish sleeve (Cash as icon?) provides the perfect visual metaphor for the musical content: stark, pared away and isolated. This isn't the schmaltzy story telling Cash of prime time TV. This is all about pain and longing, injustice and loss. Throw in covers from U2 and Nick Cave and this becomes a voyage of renewed musical discovery, the old-stager ranging the musical landscape, confident and comfortable with what he sees. Standout tracks are wonderful covers of 'I Won't Back Down' (backed by writer Tom Petty) and Neil Diamond's 'Solitary Man', and Cash's own contributions 'Before My Time' and 'Country Trash'. The recording quality has an appealing rawness and honesty, leaving players and songs with nowhere to hide, placing a premium on experience and musical understanding. The result is a powerful testament to Cash's enduring quality and chequered past, a past he has never forgotten or swept from view. Here it's present and correct, providing the continuity with his earlier work. If Johnny Cash has passed you by, now's the time to climb aboard. And if you've got the option, take the album over the CD. That cover needs to be at least 12" square.

RG

Supplied by Vivante





## Thea Gilmore

### Rules For Jokers

Flying Sparks TDBC056 (CD)

How age mellows us. Three albums and 21 years old, Thea Gilmore adopts the more reflective, acoustic presentation of her spiritual fore bears. Gone are the dense, clashing chords of abrasive guitar, leaving her voice front and centre, secure in her developing lyrical maturity. Still intact is the innate balance of word and sense, the seriousness, the socio-political content and the occasional need to shock. That and the odd forced rhyme or metre are the last indicators of her tender years amidst a welter of songs that ooze an unlikely maturity.

Musically this treads further the path first taken with her recent EP. The album shares the track 'This Girl Is Taking Bets' but the other 12 offerings are all new. Despite the mellower style, make no mistake, there's edge a plenty and this is a disc that responds to enthusiastic application of the volume control, taking on a directness and sense of purpose which brings out its passion. Whether it's the appropriately edgy drive of 'Benzadrine' or the sparse arrangement of 'Holding Your Hand' there's a security and confidence to the delivery that adds substance to the sentiment. If there's a weakness it's that there are too many ideas, some of which she could carry even further. But all that and patience too? Buy, play loud and marvel at a prodigious talent as it blossoms in full view.

RG



## Six By Seven The Things We Make

Mantra Recordings MNTCD1011 (CD) (120g)

### Six By Seven The Closer You Get

Mantra Recordings MNTCD1017 (CD) (120g)

Six by seven are to music what German engineering is to the car industry. Their precision and clarity of purpose leaves the rest of the competition standing. With only two albums to date they may not yet have changed the face of music as we know it, but they represent probably the best and most influential band in the underground world of quality guitar music. Their first, landmark, album *The Things We Make* surfaced in the UK to critical acclaim in 1998, a dark year for independent music. Recorded over nine months the album was a labour of love for the band; they speak of re-recording tracks until their fingers bled, and then of binding them to record yet again. The album is gripped by a sense of tension and instability, summed up when their singer Chris Olley declared "we play like men about to die". The production reflects the attitude of the perfectionist producer; the sound is tight and clipped, each song a chant that builds slowly, drawing out the tension. Many bands since have tried to emulate Six by Seven's sound, but none quite capture the dark oppressive, industrial drone, or the breathtaking way they can explode out of a song in an instant. The obvious highlights of the album are the instantly gratifying 'A Beautiful Shape', 'Candlelight' and 'Oh! Dear' but it's the less mainstream tracks



that grow more slowly that make this album impossible to tire of.

Last year's follow up, *The Closer You Get*, swapped the saxophone drones for a Hammond organ, kicked over the amps and got seriously angry where before they merely smoldered. An album entirely focussed on how uncaring and dirty our society has become, it's the sound of Six By Seven coming of age and realising they have something to say. *The Closer You Get* opens with their tribute to Britney Spears, 'Eat Junk Become Junk' a colossal riot of bass and drums, before stuttering through several more tracks in a quick succession of violence and distaste. The album is faultless, recorded by wunderkind John Leckie, he avoids stamping his mark on it, settling instead for simply pushing the band to new heights of excellence. Clearly recorded with vinyl in mind, the disc appears to end half way through, before starting up again with renewed vigor and bile with the aptly named 'Don't Wanna Stop'.

*The Closer You Get* has introduced an entirely new set of sounds for Six By Seven, from the seriously epic 'New Year' to some uncharacteristic acoustic tracks.

Six By Seven are easily the best band around at the moment, and these albums rate as all time classics: Huge, dark and confused, they make great bedtime listening.

MC







## Robbie McIntosh Band

### Widescreen

Compass Records – 43092 

Robbie McIntosh has had a glittering career, guitar sideman to some of the biggest names in pop and rock music, including Rod Stewart, Eric Clapton, Mark Knopfler, Little Feat and Jackson Browne. He was also a member of the Paul McCartney touring band for 6 years and one of the members for Chrissie Hynde's band the Pretenders, so his musical pedigree is exceptionally high. What he is less well known for is his song writing and singing, both skills being well to the fore on his new album *Widescreen*.

Like its predecessor *Emotional Bends*, *Widescreen* blends the many musical styles which Robbie has no doubt been exposed to throughout his long career. Opener 'Rat in the hole' is a straight ahead pop-rock with some rock solid drumming from Paul Beavis and a chorus hook that'll float around your head for day's. 'My Secret' has a John Martyn feel and features a lovely acoustic slide solo while 'Fire and Flame' finds McIntosh reunited with old boss Chrissie Hynde on harmony vocals. The band flex their muscles on solid rocker 'Gravity' before slipping into a jump jive groove on the jaunty 'No Feeling For The Blues', McIntosh blending a sweet jazzy solo with Mark Feltham's stunning harmonica work. *Widescreen* is a thoroughly enjoyable album, well recorded with first class performances from an excellent bunch of musicians who clearly enjoy playing together.

AH

RECORDING   
MUSIC 



## Nanci Griffith

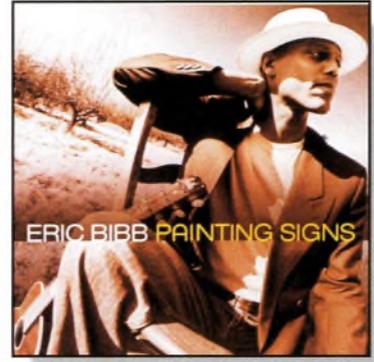
### Clock Without Hands

ELEKTRA 7559-62660-2 

Songs of memory and conscience. Some are sweet recollections of family: 'Shaking Out The Snow' and 'Last Song For Mother'. Others share broader anecdotal moments like the first steps on the moon: 'Armstrong'. Unexpectedly there are also those that draw out images of an event which still, decades later, haunts the American psyche. Vietnam. These songs: 'Travelling Through This part Of You', 'Pearl's Eye View', 'Roses On The 4th Of July' and 'Truly Something Fine', heartfelt and intelligently crafted, have pertinent lessons to impart. Nanci poignantly engages us through her unique ability to develop intimate, closely observed images that here deal with both the metaphorical minefields of the mind as well as engaging literally in the landmine debate. Perhaps the most telling track is 'Pearl's Eye View', which is subtitled 'The Life of Dickey Chapelle'. She was the photojournalist who in 1962 first revealed to the world that American troops were actually engaged in combat in Vietnam. In 1965, near the village of Chu Lai, Chapelle stepped on a landmine and was killed. The song title alludes to her legendary pearl earrings. This is definitely quite a different side of Nanci Griffith. One which is reflected in the serious vocal delivery of these songs, less twang and more body. A thoughtful and thought provoking album.

RP

RECORDING   
MUSIC 



## Eric Bibb

### Painting Signs

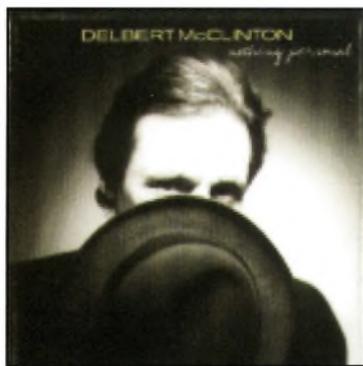
Hatman 2005 

After his last album, *Just Like Love*, this latest release is a disappointment, and is summed up by an inappropriate, live rendition of Don't Ever Let Your Spirit Down; being over-produced and lacking sentiment. There are a number of nice songs on the album, including 'I Heard the Angels Singin'', but most are over-elaborate rather than the simple, yet expressively vibrant performances that Eric is best at. Even on the Hendrix penned Angel, Eric's voice is drowned out by Janne Pettersson's piano, with the track mixed for impact, rather than natural sound. The more I listened, the more I thought of this CD as an album representing the production team, just fronted by Eric. The sound is obviously from a multi-channelled, too closely mic'd, digital recording, making it sound too bright and hard, and lacking the raw passion and relaxed sensitivity of Eric's previous albums.

If this rather unremarkable CD and his latest, over-amplified tour are evidence, it sounds like Eric has come to a musical fork in the road. I just hope that he is not being influenced to take the wrong path. Remember Eric, "Keep your feet on the ground, an' hold on to your soul".

SG

RECORDING   
MUSIC 



Delbert McClinton

Nothing Personal

New West NW6024 (CD)

Loved and admired by his fellow musicians but not always receiving the recognition of the record buying public, Delbert McClinton's fortunes changed dramatically with a cover of Bobby Womack's 'Goodman, good woman', a duet he performed with Bonnie Raitt on her Grammy award winning album Luck of the Draw. 'Good Man...' deservedly raised his profile and also features on his own disc *Never Been Rocked Enough*, an album of considerable brilliance which also featured a fine version of Bob Marley's 'Stir It Up'. His last album, *One Of The Fortunate Few* was a star-laden affair featuring greats like B.B. King, Lyle Lovett, John Prine and Mavis Staples. Most of the album's tracks were written by McClinton and his long-time collaborator Gary Nicholson, and the pair have combined admirably again on *Nothing Personal*, probably his most rootsy and complete work to date. McClinton has crossed musical boundaries throughout his 40 years in the business and *Nothing Personal* continues that tradition with a gumbo stew of blues, country, rock 'n' roll and southern soul that continually hits all the high spots, leaving the listener desperate for more long after the brilliant closer 'Watching the Rain' has faded from the speakers. Some 40 years after teaching an unknown John Lennon how to play harmonica, Delbert McClinton is still at the top of his profession, which speaks volumes for the man's talent.

AH



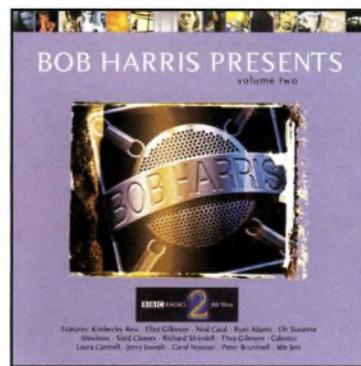
Lloyd Cole

The Negatives

BIS RECORDS 155482 mu 792 (CD)

Having spent five years reminiscing about the powerfully literate songwriting of Lloyd Cole, I am glad to say that he has at last returned from the wilderness with a sardonic release which reaffirms his mastery of introspection. *The Negatives*, shorn of those overt allusions to film, philosophy, art and literature which typified his early work with the Commotions, instead picks up the threads from his previous album, the 1995 *Love Story*. Opening in an autobiographical vein, 'Past Imperfect', recalls those heady days back in 1984 when his critically acclaimed debut LP, *Rattlesnakes*, heralded a career which has never quite commercially capitalised on a rare talent. Much of this album, though, is concerned with relationships. However, its clear from the lyrics of a track like, 'Man on the Verge', that the "... single melancholy male" is more than a hesitant lover. But then Cole has always possessed a wry, often self-deprecating, sense of humour and healthy fondness for masquerade. Musically, all this metaphorical manoeuvring is held together by a guitar based band - David Derby (bass), Michael Kotch and Jill Soubule (guitars), Rafa Maciejak (drums). While, in addition to his soulful vocals, Cole exercises his own guitar and synth skills. Very Commotion-esque.

RP



Bob Harris Presents...

Volume II

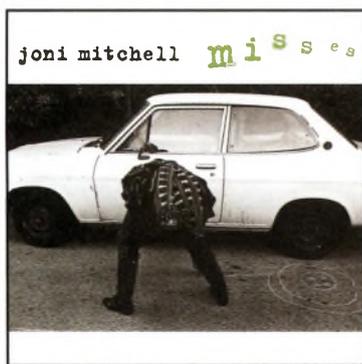
Assembly Records ASEMCD 002 (CD)

The second broadside in Whispering Bob's personal war on inane pop music hits home with all the accuracy and force of his opening salvo (reviewed in Issue 10). Understandably dismayed at the quality of modern mainstream music offerings, this is his personal selection of the best alternatives from artists who aren't going to get the airplay they deserve.

If thinking man's pop, often as not blended with an acoustic country influence sounds like your bag, then this disc is a must have purchase. 15 of the best, it contains hidden gems alongside the better known performers. Volume I led me to the fabulous Dolly Varden, an on-going love affair that shows no sign of weakening. This time round, alongside the likes of Slaid Cleaves, Thea Gilmore and Calexico, all of whom have received enthusiastic reviews in these pages, it's Stewboss and the hauntingly beautiful voice of Laura Cantrell that are the standouts. Well, at least as far as I'm concerned. With the variety and quality on offer here there's going to be something to raise the heart rate of anybody with a musical pulse. Buy this and I can guarantee future beneficial visits to your local purveyor of musical software.

RG





## Joni Mitchell

### Misses

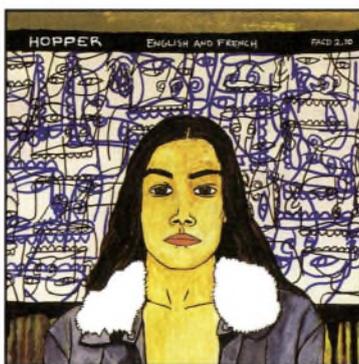
REPRISE 9362-46358-2 

A tongue-in-cheek companion disc to the 1996 *Hits* album reviewed in issue 10, *Misses* confirms an artistic depth and lyrical consistency to be found in those songs which have perhaps received less airplay than they merited.

A selection of tracks from releases as diverse as the chintzy *Ladies of the Canyon* ('The Arrangement'), to a gritty *Turbulent Indigo* ('Sex Kills' and 'The Magdalene Laundries'), chronicle a songwriter's craft through the natural innocence of the Sixties to the social depravity of the mid-nineties – where Mitchell's lower and huskier voice engages images of incest, drugs, prostitution, religious abuse and environmentalism. With these moments of insight it's possible to map the shifting emotional undercurrents of a generation – from youthful idealism to an often traumatic and weary sense of adult responsibility. Solid HDCD processing does justice to these sentiments. It also reveals in far better detail than before what an accomplished musician Joni Mitchell is in her own right. Because she is accompanied by players of the highest calibre we tend to take Joni's fine guitar work and keyboard skills for granted. This, like her lesser known compositions, deserves generous applause.

RP

RECORDING  
MUSIC



## Hopper

### English and French

Factory too FACD2.10  

Once upon a time there were independent record labels, and greatest of these was "Factory Records". Then Factory Records produced a daughter label, "Factory too", the even-more-independent offshoot of the most fiercely independent label in Britain. And from this label came Hopper, a female fronted, indie power-pop outfit, whose one album *English and French* was produced by none other than indie god, and one time Suede guitarist Bernard Butler. So just how indie are Hopper? More than you could ever imagine. *English and French* is great fun.

It's all guitars and bad drum rolls, mixed with the formidable, and quite unique, vocal talent of their bespectacled lead singer. With the addition of some pretty intelligent lyrical material, they squeeze new life out of the slightly tired four-piece format. In terms of recording, it's certainly not hi-fi, but it is what the material demands. Half the album sounds like it's been recorded in my shed, but is all the more energetic for it, whilst the other half is more delicately produced, with the singer's perfectly naïve vocals right in the front of the mix. It's a mixed bag then, a historical oddball, which deserves a listen. Whilst it may seem like a straight power pop excursion, the depth of emotion in a few of these songs will genuinely surprise. Rare when released, there are still some good quality vinyl pressings available for the persistent. If you like 90's indie, this could be for you.

MC

RECORDING  
MUSIC



## Mary Chapin Carpenter

### Time. Sex. Love

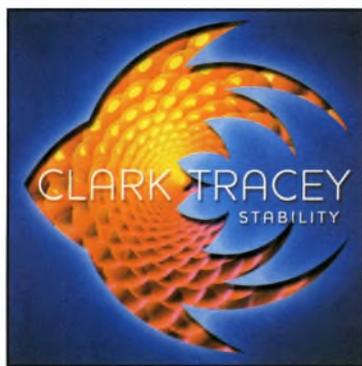
COLUMBIA 502354-2 

Mary Chapin Carpenter possesses a considerable musical appetite for a girl 'n' her guitar singer songwriter who is well known to suffer bouts of depression. Quality and quantity rarely go hand-in-hand but as a performer she is an exception to that rule. Unsurprisingly the focus of her subject matter has tended to be alcoholism, fractured relationships and isolation. This album is no different in that respect. Thematically all the old uncertainties are present with songs like, 'Slave to Beauty', 'In the name of Love', 'What was it Like' and 'Maybe World', raking over the autobiographical ashes. But there is a steeliness too, as the tracks, 'This is me Leaving You', 'Simple Life' and 'Alone But Not Lonely', show a willingness to overcome these hurdles and determine one's own life for the better. Though Carpenter shares much in common with folk rock musicians like Shawn Colvin, she still enjoys the continuing loyalty of country fans. This has not stopped her from gradually divesting herself of country's more obvious robes. Here, the highly polished production values iron out a few more remaining wrinkles to reveal an impressively smooth and rocking modern folk crossover album that brings fresh melodies to what is otherwise a frequently predictable and threadbare genre.

RP

RECORDING  
MUSIC





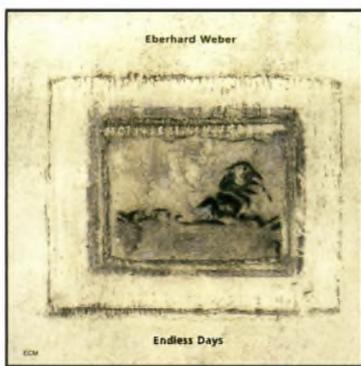
Clark Tracey

Stability

Linn AKD 159

Son of the renowned pianist, composer and arranger Stan Tracey, Clark began playing regularly with his father's bands as far back as 1978, and over the years has developed to become one of the UK's most experienced drummers. This HDCD recording sees him joined by a wealth of talent. The album opens with a paired down – for 6 players, not the full 'big band' – Gil Evans arrangement of Gershwin's 'Gone' from *Porgy and Bess*. This works well, the number driving even harder than its full band ancestor and with players of the calibre of Andy Shepherd and Iain Ballamy on hand, it's little surprise that it works so well. 'Lounge Blues' highlights some superb piano work from Gareth Williams, also some great bass playing from Arnie Somogyi. Thelonius Monk's 'Ugly Beauty' sees Symogyi and Guy Barker on trumpet joined by the Locrian String Quartet. Fine atmospheric stuff. And so on: throughout the album Tracey has featured different soloists to take the lead on each track, assigned according to the mood of each piece. Good clean recording, sounding just fine on my HDCD equipped player. This is a well recorded, well judged CD.

DD



Eberhard Weber

Endless Days

ECM 1748 013420-2

Weber is one of Europe's leading proponents of the 5 string electro-acoustic bass and has a truly unique and lyrical voice successfully merging jazz with contemporary classical styles. This is a fine example of his work. Opening with the lyrical 'Concerto for Bass' the music grabs you from the opening bars and whilst it's a full two minutes 'til Eberhard's bass kicks in, it's worth the wait. His melodic lines recall Pastorius at his most fluid. Beautifully accompanied by Paul McCandless on variously soprano sax, horn, oboe and bass clarinet, by Rainer Bruninghaus on keyboards, and Michael DiPasqua on drums this is a fine, well integrated band. The recording quality is excellent: airy and spacious with real weight to Eberhard's bass and to the percussion. The cymbals also sound particularly natural, always a good sign. The eight tracks seem to flow effortlessly from one to another and given that the quality of playing throughout is so strong, it's difficult to choose a favourite. 'Solo for Bass' would come close 'though, with particularly atmospheric playing set against a low 'string' drone. Great stuff.

DD



Duke Ellington/Boston Pops/  
Arthur Fiedler

The Duke at Tanglewood

Classic Records/RCA LSC 2857

If asked to name my top few jazz musicians Ellington would be right up there with Parker, Miles, and Monk. A genuine innovator, he's contributed some of the greatest music of the 20th century: The ground-breaking 30's and 40's sides, *Black, Brown and Beige, At Newport*, just about every one of the *Suites*, fine later albums like *Blues in Orbit* and *Jazz Party in Stereo*, the list goes on. I love the man. It was therefore with no small excitement that I spotted the title of this album as it appeared from the Ed's case. Then I spotted the small print...the Duke was merely guesting with Fiedler and the Boston Pops. Why? Why? Why? The gig was for charitable purposes of a sort I suppose – it raised some \$48,000 for the orchestra's pension fund – but it just hurts to read the sleeve notes and see quotes like 'the original soloist was Johnny Hodges' as yet more treacly strings ooze forth from the speakers. Unsurprisingly the Duke seems half-asleep throughout and only Louis Bellson's drums add some snap to the proceedings. A beautifully recorded syrupy disaster.

Supplier: Vivante - [www.vivante.co.uk](http://www.vivante.co.uk)

DD





Charles Mingus

### The Black Saint And The Sinner Lady

Speakers Corner/Impulse AS-35 

Much as I love *Mingus Ah Um*, this is my favourite of his albums. It contains his greatest long form piece, an extended suite that takes in multiple influences from Ellington (in both it's extended suite form and in some of the horn work), to classical composers like Debussy, 'though the overriding influence is of course Mingus himself. Mingus even re-named his band for this release to the Charles Mingus New Folk Band, prompting Impulse to change their usual slogan to 'The New Wave of Folk is on Impulse' and to classify the album as 'Ethnic Folk-Dance Music'.

However it's classified this is very fine music indeed. There's a focus and intensity throughout, whether in the faster paced sections or the lyrical piano led sections. The 11-piece band is so together that it's difficult to single anyone out for favour, but Charles Mariano's alto playing is superb, as is Dannie Richmond's drumming. This is an absolute classic, very well produced and engineered by Bob Thiele and Bob Simpson, with real 'you are there' presence and weight. If you don't own it already shame on you, rush out and buy it immediately!

Supplier: Vivante - [www.vivante.co.uk](http://www.vivante.co.uk)

DD



Misha Alperin

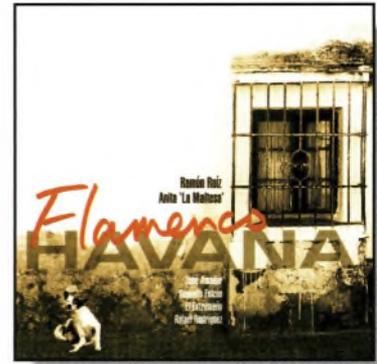
### At Home

ECM 1768 549610-2 

Recorded in February '98 at his home in 'a little wooden house on the coast of the Oslo Fjord in Norway...nine metres of working space proved sufficient for me to feel alone and content'. It is this quality of stillness and quiet contemplation that helps to set this solo piano recording apart. The CD comprises 12 short - some as short as 29 seconds - improvised pieces. Aside from the title track, 'Emptiness', 'Nostalgia', 'Nightfall' and 'Shadows' give a pretty good impression of the overall theme. Fortunately, despite the sombre, reflective themes the quality of the playing and overall lightness of touch prevent this from becoming the Nordic gloomfest it could so easily be. It may be released on ECM, but I wouldn't call it jazz. There are faint echoes of Satie throughout and if I had to categorise I'd file it under contemporary classical.

An involving recording for all that.

DD



Ramon Ruiz, Anita La Maltesa

### Flamenco Havana

Naim CD055 

Now here's an interesting world music stew...Ramon Ruiz and his partner of 10 years, Anita La Maltesa were seen in concert during last years Salisbury Festival by Paul Stephenson of Naim. This concert and meeting were the genesis of this album recorded by Naim in Seville. Ranging from all-out traditional flamenco pieces to much more Latin influenced pieces like the first track 'Ese Mal Amigo'. The pair are joined by a heady mix of Spanish and Cuban musicians. The preponderant feel is very much Flamenco, but the Cuban influence is never too far away. On paper it shouldn't work - two distinctive musical idioms should be too much - but thankfully the skill of Ruiz, his mastery of the guitar in both Flamenco and Latin styles makes it all hang together and whether you can see the 'join' or not, it simply doesn't matter. This is simply joyous music making born of three days and nights of intensive recording.

A good clear, weighty recording with a real sense of fingers on strings and sliding across the fretboard. Thankfully too, the instruments are properly scaled - no eight foot wide guitars here - which does nothing but aid the 'you are there' feel of the fine recording.

DD



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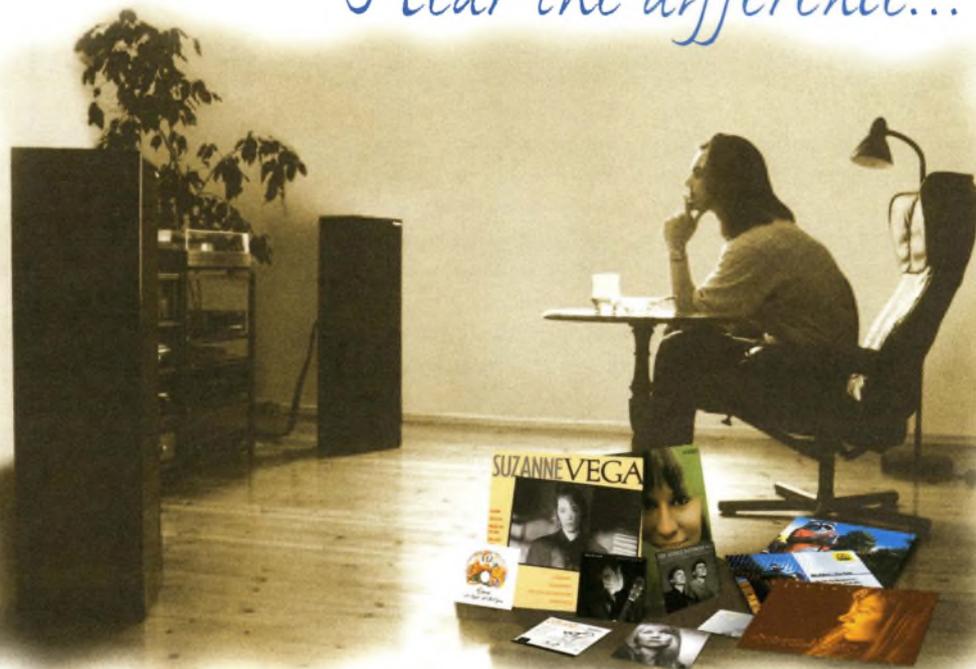
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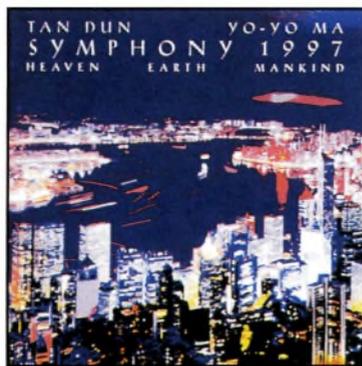
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**Tan Dun**  
**Symphony 1997**  
 Yo-Yo Ma/Imperial Bells Ensemble of China/ Hong Kong Philh. O./ Yip's Children's Choir/Tan Dun  
 Sony SK 63368 (CD)

The *Symphony 1997* was written for Hong Kong's reunification with China. Composed in three parts, its whole is an amalgam of the traditions of ancient China, characterised by the Bianzong (65 bronze bells excavated from a 2400 year-old tomb), and the future of the former British dependency, in the children's voices. Among these representations are the full-blooded orchestra and Ma's touching cello, resulting in something akin to that which will greet the competitors at the opening ceremony of the newly declared Beijing Olympiad. Traditional Chinese melodies and rhythms dance with western orchestral composition, and while the two seem an admirable pair, they can also become slightly untrusting bedfellows. The 2nd part – 'Earth' – is particularly avant-garde, yet a certain balance is maintained. All the performers play or sing adequately, although the Children's Choir can sound, stereotypically a little hackneyed. The recording is an audiophile's dream, with a massive soundstage that holds vivid and dynamic sounds within its boundaries. The bells sound particularly real, with excellent separation and superb transients. This occasionally moving music reveals the composer's optimism for a future where mankind lives in harmony with itself, nature and the spiritual world. An admirable CD for an admirable vision.

SG



**Mozart**  
**Eine Kleine Nachtmusik**  
**Symphonies 39 and 41**  
 Philharmonia/NPO  
 Otto Klemperer  
 EMI CDM 5 67334-2 (CD)

That Klemperer was a great Mozart conductor hardly needs arguing. And, while there have been considerable changes in playing style since these recordings were made back in the '60s, it's remarkable how well the performances stand up. Breadth and Power are the key aspects of Klemperer's Mozart. Even in the shapely trio section of *Eine Kleine Nachtmusik* there's no trace of sensuality, no sense of things being manipulated or massaged. Although Klemperer had a reputation for slow tempi in his later years, he always kept Mozart moving. But the music is never taken so fast that phrasing is rushed. Fashion dates, style doesn't, and Klemperer's Mozart always had style. His liking for forwardly balanced winds (and the distinctive reedy timbres of his wind players) aids clarity, avoiding the turgid string-dominated balances that were characteristic of many contemporary Mozart performances. Dr K's interpretation of Mozart's last symphony was famous for its contrapuntal clarity and broad sweep. So many modern performances seem to emasculate this work, but Klemperer's expansive tempi create a breadth that ensures the scale of the music is never diminished. EMI's vintage recordings sound full-bodied and focussed, with excellent clarity and good pitch definition. Best sound is from *Eine Kleine Nachtmusik* (1966), but the symphonies (1963) aren't far behind.

JMH

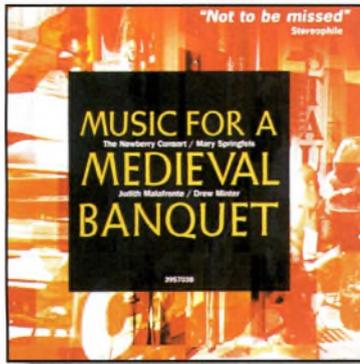


**Mahler**  
**Symphony No 9**  
**LIEDER AUS**  
**"DES KNABEN WUNDERHORN"**  
 Jessye Norman  
 John Shirley-Quirk  
 Concertgebouw  
 Orchestra  
 BERNARD HAITINK  
 Philips 464 714-2 (CD)

Originally released on LP in 1970, Haitink's *Mahler 9* quickly won many converts, not least for the purity and truthfulness of the Philips recording. It's a sane well-balanced reading of great dignity and calm restrained power. And while it lacks the intense gut-wrenching emotional angst of some later performances (Bernstein's with the same orchestra, for example, or Guilini's Chicago version - both DG), there's no doubting the deep sincerity that informs every note. Haitink was due to re-record the work with the Berlin Philharmonic as part of his new digital Mahler cycle. But, alas, the series was destined to remain incomplete, and this remains his only reading. The analogue recording (newly-remastered using 96kHz/24bit technology) sounds more focussed and crisply detailed than the original full-price CD issue coupled with *Kindertotenlieder*. But why have Philips split the symphony over two discs when they've already issued it on a single CD in their Duo series? Admittedly, at just over 80 minutes in total, CD playing time is stretched to its limit. But, they've done it once, so why not do it again? The filler is Haitink's 1977 set of *Wunderhorn* lieder, atmospherically played, characterfully sung and sumptuously recorded. Compared to the previous CD issue on Philips Duo (*Mahler orchestral songs* - 454 014-2 2CDs) the recording now sounds even richer and slightly more spacious, with increased air around voices and instruments.

JMH





## Music for a Medieval Banquet

### Newbury Consort

Harmonia Mundi

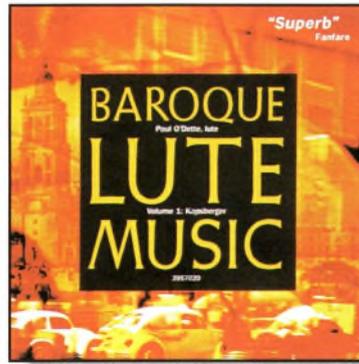


Classical Express HCX 3957038

The music on this CD is based on some of the works of the 14th Century Tuscan poet Prudenanzi, which are set to the melodies of some of the most prominent musicians of the time. These tunes include many exotic dance rhythms from regions of the Middle East and the Eastern Mediterranean, intertwined with those of Medieval Italy. This gives it a distinct folk-like quality, which is worked to fit around the writer's poetic structures, and represents the link between the contemplation of a medieval court and the animation of its subjects. There is a nice balance between vocal and instrumental pieces, and the music is lively but also authoritative, with the quintet of the Newbury Consort giving a spirited and expressive performance, full of authenticity. The interpretations are precise yet colourful, which combined with sound that is lively and dynamic, with plenty of ambience, and which matches the performance and music nicely, provides an impression of a live performance by a visiting group of troubadours. This CD delivers an enjoyable listening experience that should be of special interest to those who love the wonderful medieval psaltery and Arabic/Andalusian music produced by the MoA Recordings label.

SG

RECORDING  
MUSIC



## Kapsberger Baroque Lute Music (Vol. 1)

### O'Dette

Harmonia Mundi



Classical Express HCX 3957020

Venetian by birth, Kapsberger had a German nobleman as a father. By the early 17th Century he had become a much-respected musician, having developed a demanding and pioneering technique on the chitarrone (or theorbo). He moved to Rome, where he became established as a premier virtuoso and composer, and was employed by the papacy for the rest of his life. His work is full of polyphonic clarity, and replete with counterpoint and wonderful rhythmic qualities. The pieces on this release are full of harmonies, with the composer's signature traits of enlivened virtuosity and originality throughout, making them demanding of the soloist. But this extravagance could well have led to Kapsberger's downfall, with his contemporaries, who had previously been full of praise, finally discrediting his name.

O'Dette performs works on both a 10-course lute and the chitarrone, and his marvellous and totally sympathetic playing reveals the composer's trills and arpeggios to the full, while the intimate and complimentary recording is full of detail and reverb, revealing the musical harmonies and energy.

This is a superb CD, and a wonderful introduction to the music of a neglected master of the baroque period, whose music was often ahead of its time.

SG

RECORDING  
MUSIC



## Boccherini Guitar Quintets, Vol. 1

### Savino/Artaria Quartet

Harmonia Mundi



Classical Express HCX 3957026

These are charming works that are played with sensitive vibrato and polished expression. The guitar adds a Spanish feel to the Italianate sounds of the quartet, with the castanets in the celebrated Fandango reinforcing this. The guitar is used as a solo instrument, as well as support to the wonderful counterpoint produced by the Quartet. Despite this extensive use of counterpoint, often favoured over harmony during this period of composition, Boccherini's works also let the individual instruments produce harmonies that allow the flow of melodic charm to expand and grow. The use of folk tunes, permeated with melancholia, continually merge with the refined textures of the Viennese, despite the composer's distaste for this classical style. Savino performs with refinement and subtlety, but does not stamp his conviction on these pieces as much as he could, while the Artaria Quartet's playing is far more authoritative and they are always beautifully articulate, performing with great clarity.

The recordings are wholly appropriate and very natural and lucid. There is plenty of life and hall acoustic that add to the listening experience. This is music to cherish, performed and recorded in total sympathy.

SG

RECORDING  
MUSIC





**Handel  
Italian Cantatas**

**Kožená/Les Musiciens du  
Louvre/Minkowski**

Archiv 469 065-2 (CD)

These three Cantatas were composed for private performances in front of the Roman aristocracy, and show the wonderful vigour and passion of that, and the many Italian cities that influenced the young Handel in the early part of the 18th Century. Czech soprano Magdalena Kožená conveys beautifully the impassioned drama of these pieces, and performs with an authority and conviction that belies her youth. She reveals wonderful agility handling even the most testing of tempos or the heart-rending feeling conveyed in 'Gia Nel Seno Comincia', with equal aplomb. Her technical accuracy and timing are beyond reproach, and there is a beauty and charm throughout. But it is the intensity and passion that are most striking, and this is especially noticeable in La Lucrezia: 'O Numi Eterni!' Minkowski and Les Musiciens du Louvre, play with authority and feeling. Their tempos are bold, yet in keeping with the composer's brilliant writing, and the textures of each instrument are brought to the fore by a warm, yet vivid live recording. Kožená's singing is exceptional and totally out of the ordinary, revealing differing facets of her abilities, as well as the three works on this CD, establishing her as a star of the future.

SG

RECORDING  
MUSIC



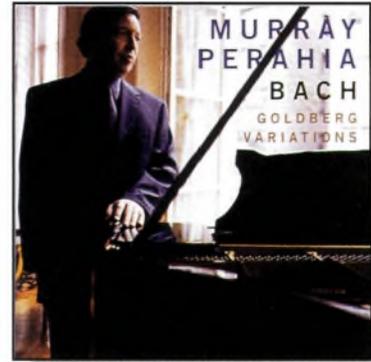
**Debussy  
Images For Orchestra  
Gigues/Iberia/Rondes du  
Printemps**

Munch, BSO  
JVC/RCA JMCXR-0004 (XR)

The late '50s and early '60s saw a particular musical fascination with Spain and all things inspired there by. As a result, it was hardly surprising that Debussy's impressionistic masterpiece, *Images For Orchestra*, should become a concert and recording staple, with every major label committing it to vinyl. For RCA, that meant Living Stereo, Munch and the Boston. With JVC embarking on the Living Stereo back catalogue, Munch's Debussy recordings were an obvious place to start. Interestingly, however, this XRCD isn't the first audiophile re-issue of the work, with Classic having released Argenta's Decca/London recording on gold CD. The comparison is surprisingly predictable, the Decca offering greater transparency and dynamic zip, the RCA a more stately, sumptuous and all enveloping reading (well suited to XRCD's strengths). Which you'll prefer is going to be down to taste, but for me it's difficult to ignore Argenta's natural empathy with the subject matter, as well as his greater sense of precision and organisation, better able to make sense of the more free form passages and sudden rhythmic shifts. Having said that, Munch's vision has its own majesty and an appealing sweep, providing a lush and more romantic alternative to Argenta's sun drenched reading. But that's the beauty of classical music. This performance or that, this conductor or that orchestra...

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RG  
RECORDING  
MUSIC



**J. S. Bach  
Goldberg Variations**

**Murray Perahia**

Sony SK 89243 (CD)

In 1955, Glenn Gould recorded a *Goldberg Variations* (Sony) that was to remain the benchmark performance for over four decades. Recently this high ground has been challenged; firstly by Angela Hewitt (Hyperion) and now Murray Perahia, with this CD.

This is vivacious musicianship of the highest order, with only an occasional hint of offensiveness in Perahia's attitude and reading of these pieces. He produces marvellous harmonies and contrapuntal resolutions, which reveal much of Bach's compositional skill and thoughts. There are dramatic tensions (Variation 8), comical rhythms (Variation 11), and deep anguish (Variation 25), but it is in the 'Aria' that Perahia reveals the full glory of these wonderful pieces. Here his expression, flow and clarity are superb, making this opening composition pivotal to the overall work. His virtuosity is admirable throughout, revealing assurance, enchantment and mastery while delighting his listeners. The warm sound is too close, but is detailed and clear, and manages to reveal the pianist's technique.

While this recording is not the lone benchmark for Bach's wonderful *Goldberg Variations*, it does sit alongside two other great performances, and confirms Perahia as one of the foremost interpreters of this great composer's works for the keyboard.

SG  
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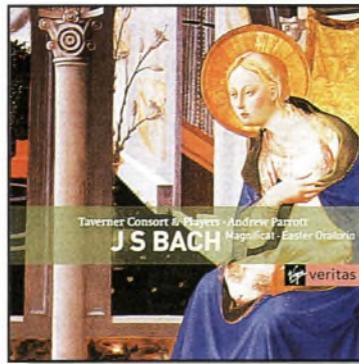
J. S. Bach

### Brandenburg Concertos Nos. 1-6 Tafelmusik/Lamon

Sony S2K 66289 (CD)

The excellent Canadian, period instrument ensemble Tafelmusik first came to my attention with their releases for Reference Recordings. Their recording of the six *Brandenburg Concertos* is one of the best all-round issues of this often-recorded work. While some have great singularity or innovation, this recording is more sensibly judged, while still remaining stylish. There are few eccentricities and the performances are unlikely to irritate. Tempos are satisfying, if occasionally on the faster side, and the music is allowed to flow naturally. Tafelmusik play with poise and there is a focus to their performance that brings Bach's wonderful use of polyphonic forms and counterpoint to the fore. The soloists are mainly reliable rather than outstanding, but Jeanne Lamon's solo violin and directorship throughout, are worthy of special mention, as are the two recorders in *Concerto No. 4* and the harpsichord in *Concerto No. 5*, which are both stylish and vivacious. The recorded sound is pretty good, rather than of demonstration quality, with natural tones and soundstage, but there's compensation in the form of a nice acoustic. While no single recording of Bach's captivating *Brandenburg Concertos* is likely to unconditionally satisfy, this is one of the better performances and is recommended.

SG

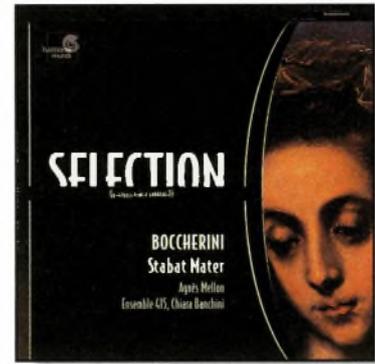


### J S Bach Magnificat; Acension Oratorio; etc. Consort Players, Parrot

Virgin Veritas VBD 5 61647-2 (CD)

The practice of performing Bach's choral works with reduced forces reached its zenith (or nadir!) with the one-voice-per-part performances of Joshua Rifkin; the ultimate outcome of a scaling-down process that began decades before as musician-scholars attempted to recreate the authentic sound world of baroque composers. Andrew Parrott isn't quite as hair-shirt as Rifkin, but he's not far behind. Performing these works with reduced forces gives the music a flexible intimate quality that's very appealing. Inevitably, the big moments lose power and grandeur, but this is offset by greater expressiveness and crisper phrasing. Plainly, one voice can negotiate tricky changes of emphasis and awkward intervals better than a group trying to sing as one, though the stark clarity created can expose intonation and ensemble shortcomings mercilessly. The performance of *Magnificat* is very accomplished, and beautifully sung, but the wide-ranging dynamic contrasts between choral passages and solo arias is reduced. More successful is Bach's beautiful but technically challenging *Easter cantata Christ Lag in Todes Banden*; having one voice per part certainly helps clarify Bach's dense contrapuntal writing, ensuring one appreciate the multi-layered complexity of this wonderful piece. The recordings sound clean and detailed, and a slight increase in volume helps banish any sense of the performances seeming emasculated.

JMH



### Boccherini Stabat Mater/String Quintet, Op. 31/4

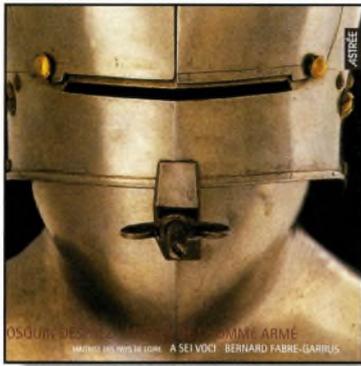
### Mellon/Ensemble 415/Banchini

Harmonia Mundi HMX 2981378 (CD)

The *Stabat Mater* is a work full of empathy and spirituality, but it never comes across as austere. Boccherini's composition is more like a sparsely orchestrated set of arias that fluctuate between varying keys, using many of the composer's varied instrumental techniques to reveal a rich palette of emotional, poignant and tender sensuality. Although occasionally sombre, this work never exhibits over-sentimentality, and the passion revealed by Agnès Mellon's wonderful voice holds a remarkable intimacy and luminosity. The Ensemble 415, under the leadership of Chiara Banchini's direction, perform with poise and expressive charm, especially in the *String Quintet*. This is deeply melancholic, as opposed to the other Op. 31 works, which exhibit the happier times that Boccherini was experiencing during this period. It is full of maudlin nostalgia and intense equanimity, only lifted in the 'Allegro Vivo' and 'Allegro Ma Non Troppo', but still not showing the agility and warmth of the composer's other chamber works. The recording is very good, with plenty of detail, texture and a beautiful tone, and the strings blend naturally with the vocal performers. This is a beautiful CD, of the definitive performance of both Boccherini's and the late 18th Century's most sublime work.

SG





**Josquin Desprez**  
Messes de L'homme Armé

Maitrise des Pays de Loire/ A Sei Voci/Fabre-Garrus

Astrée E 8809

A Sei Voci continue their recording of works by Josquin Desprez, with this beautiful performance of the two *L'homme Armé* Masses. This is their sixth such release and the second with the excellent Maitrise des Pays de Loire.

These secular pieces were written in the late 15th Century and possess melodic and rhythmic qualities that are the hallmark of the composer's work. They are particularly well performed, with the emotion and spirit of the compositions being captured perfectly, and the vocalisation is tremendously expressive, using both range and interpretative treatments to illustrate Desprez's compositional genius. There is a tremendous underlying power in the voices that is both inspirational and sensuous, especially in the darker toned 'Missa L'homme Armé Sexti Toni', and the polyphonic inter play expressed throughout supplies numerous focal-points for the listener. The two works of plainchant, which make up this CD, are also performed with a similar level of excellence. While the recording is a little too closely mic'd, it is wonderfully detailed and full. The Fontevraud Abbey provides a wonderful acoustic and atmosphere, which results in three-dimensional sound filling the listening room.

This CD provides both an enjoyable and spiritual listening experience, and is thoroughly recommended.

SG



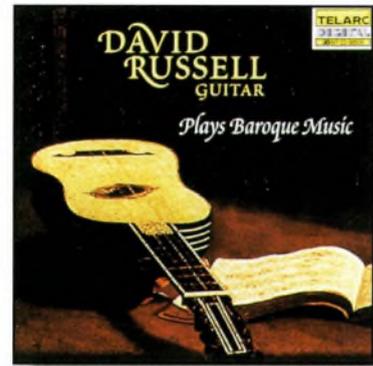
**Rimsky-Korsakov**  
Scheherazade

Berlin Philharmonic  
Herbert von Karajan

DG The Originals 463 614-2

Karajan recorded *Scheherazade* just the once, and never performed it live in the concert hall. Why, is a mystery. As one of the great showpieces for orchestra, one feels he must've revelled in the music's brilliant luxuriant colours and exotic scoring. His 1967 DG performance is beautifully shaped and wonderfully played, sounding as though he and the orchestra loved the work and had given infinite thought and care to every detail. Michel Schwalbe is an outstanding soloist, and in the finale's introduction he makes his violin sound like a weeping hysterical woman. The recording has come up very well in this new CD transfer, sounding crisp, open, and well-balanced, if a shade dry and bass light. The LP always needed a good MC cartridge to open things out; only then did the sound impress. The fillers are Karajan's contemporary accounts of Tchaikovsky's *Capriccio Italien* and *1812 Overture*. In the sleeve notes, Richard Osborne hints that Karajan was very probably bored by the *1812*. Yet, although it might not be the ultimate test of musicianship, how often does one hear a performance that really lifts you out of your seat - as it should and must? Karajan's *1812* is good, but the cannons at the close are feeble. Vastly better is *Capriccio Italien* - sumptuously played in every respect, and musically in a class of its own!

JMH



**David Russell**

Plays Baroque Music

Telarc CD-80559

Classical guitarist David Russell performs a programme of transcriptions of works by Loeillet, Vivaldi, Handel and Domenico Scarlatti, which were all composed for instruments ranging from the harpsicord to the cello or flute, but not the lute or theorbo. The results are a thoroughly enjoyable recital, which often unearths layers of phrasing and the melancholic understanding that has eluded many performances on the original instruments. Russell's performance is smooth and graceful, free of gimmickry and irritating exaggeration. He plays faultlessly and exhibits effortless technique, revealing an acute attention to detail and complete understanding of each composition. His expressive warmth, allied to eloquent rhythms in Handel's beautiful *Sonata in A minor*, bring a sense of discovery and manage to reveal any dance-like quality held by the composition. The Scarlatti *Sonatas* (or Exercises) are extremely attractive, and bring the composer's modern ideas to the fore. The sound is big, free and alive, with an excellent tone, with an open soundstage. But there are large amounts of reverb, which can distract from the performance. While a guitarist of refinement and sensibility, Russell may not exhibit the pyrotechnics of others, but his understated virtuosity suits this music perfectly.

SG





**Strauss**  
**Ein Heldenleben; Tod und Verklärung**  
 Royal Concertgebouw orchestra  
 Haitink

Philips 464 743-2

On the face of it, Bernard Haitink wasn't perhaps the most obvious choice to conduct a great *Heldenleben*; insufficiently bullish – too much of a gentleman. Yet, backed by a superb orchestra at the height of their powers, he confounded those who label him a worthy but somewhat dull conductor. True, his reading is less extrovert and headstrong than some, but heroism comes in many different guises, and Haitink's hero is serious and noble; brave but self-effacing and not in the least bit boastful. Frightfully British, dare I say it. If you were a record collector in the '70s, this was a "Must Have" LP for both sound and performance. And while by modern standards the recording hasn't quite the weight and amplitude of some later versions, it still sounds well. For their 50th anniversary series Philips have remastered the original analogue tapes using 96kHz/24bit technology, but there's not really much improvement over previous reissues – just a marginal freshening-up. *Tod und Verklärung* dates from 1983 and is digitally-recorded. The sound here, as you'd expect, is sharper and more wide-ranging, but still truthfully-balanced and very natural tonally. Haitink's interpretation is very persuasive; initially one of restraint, but always building inexorably towards each big climax. Consequently, the cumulative effect is greater than it is with less patient performances that go for broke from the start.

JMH

RECORDING   
 MUSIC 



**Held by the Ears**

**Palladian Ensemble**

Linn CKD 126 

The title of this CD comes from one of the essays of Roger North that refers to the 17th Century composer and violin virtuoso, Nicola Matteis. His works were often influenced by his interest in the folk music of the time, and so it is a collection of these works and Scottish folk tunes of the period, that fills this disc. Matteis' compositions are fairly unique, and always interesting, with his work featured here producing a lovely contrast between brisk, irregular tempos and beautiful melodies.

The Palladian Ensemble is perfectly suited to this music, comprising recorders, violin, bass viol, and either guitar or theorbo, but it is not just the correct instruments that make this an excellent CD. The performance reveals an enthusiasm and understanding, and there is an intelligence and warmth that many performers miss. The playing exhibits a wonderful spontaneity and verve, as well as a certain exhilaration and delight, that brings each work to life. The sound is also excellent, and the only letdown in this area is a slight lack of depth to the acoustic and soundstage.

This is an enchanting disc that should entertain and enthrall the listener time and again.

SG

RECORDING   
 MUSIC 



**J S Bach**  
**Harpsichord Concertos**  
 Richter;  
 Bilgram – harpsichords Munich  
 Bach orchestra

DG 469 687-2 

In autumn 1973, DG's Archiv label issued a sumptuous limited-edition 5LP set containing all Bach's harpsichord concertos played by Karl Richter. Because it was only available for approximately five minutes, the original boxed set is now quite rare – though the LPs were reissued in Archiv's 1974 Bach edition. The performances are gorgeous – but only for those with a sweet tooth! Even by early '70s standards Richter's warm and richly-phrased Bach was starting to sound anachronistic. Yet no set of recorded performances on authentic instruments rivals the sheer fun and euphonic splendour of Richter's. The music positively glows, and one senses everyone thoroughly enjoying themselves. Tempi are brisk, but not too fast, with proper emphasis given to supple phrasing and crisp flexible articulation. Baroque die-hards may find it all a little too lush and Romantic. But only purists will fail to warm to Richter's infectious musicality. The recordings were always among the best of their day, and reflect the warmth and richness of the playing. This CD gives a generous (78 minute) cross-section of the complete set, but it's a pity the great *D Minor Concerto* (BWV 1052) wasn't included – Richter's account was impressively serious and intense. At budget price this disc is definitely worth getting – though now having heard it, I'm longing for the complete set!

JMH

RECORDING   
 MUSIC 



Joan Armatrading

Self-Titled

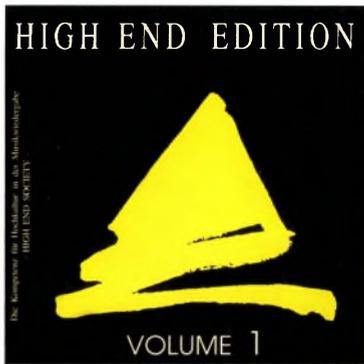
Speakers Corner (A&M) SP-3228 **180g**

Armatrading exploded onto the music scene with this, her 1976 debut album, and what an album it was. Great songs throughout, capped off by the classic 'Love and Affection', a composition of such stature that it's in danger of over shadowing the rest of the record, single handedly catapulting its author to international super stardom. But to see this as a one track wonder is a huge mistake. This is an album of consistent quality and astonishing maturity, one which Armatrading was never to surpass, or even equal until the arrival of *Me, Myself and I*.

The simple, largely acoustic arrangements add poignance and penetration to lyrics that cut straight to the emotional core. It's a mix that thrives on the silent surfaces and inky backdrop of this superb Speakers Corner pressing, something that the original A&M pressings never possessed (at least mine didn't!). Just take the opener, the fantastic 'Down To Zero'. There's a pellucid majesty to those all so familiar descending bass notes, a confidence and poise to the swooping vocals. It might have made the *Records To Die From* listing back in Issue 10, but that's more a function of over indulgence than anything else. If it's a while since you sampled these musical delights, what better excuse do you need than this 180g re-issue?

Supplier: Vivante - [www.vivante.co.uk](http://www.vivante.co.uk)

RG



Various artists

High End Edition, Volume 1

HEE CD 001 **CD**

And from the very darkest recesses of the Editors review bag comes this miscellaneous collection from Germany. It's an audio assessment disc from the High End Society, organisers of the Frankfurt show, so it arrives with some pedigree.

Proceedings start with a selection of early music including vocal pieces from Giulio Caccini, Sanchez, and Monteverdi. These are well performed and nicely recorded: diagrams in the sleeve notes set out the microphone layouts for the recording of each segment. A simple 3 microphone layout for these pieces, and for the following organ music and string quintet, and a somewhat more complex 6 mike set up for the jazz quartet sessions that close the CD.

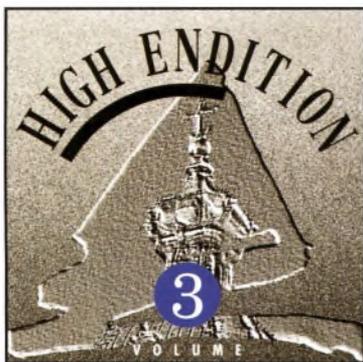
The organ pieces by Weckmann and Buxtehude are extremely natural sounding. There's the expected deep, deep bass, but also tangible reedy sounding pipes and a real sense of the spacious acoustic environment in the Ludgerkirche where these pieces were recorded. The string quintet, the Ensemble Concertant,

breeze through a couple of pieces by Schubert and Boccherini, again well performed but slightly less well recorded. The bass is a touch hard and the pieces feels very closely miked with breathing noises obtrusive on occasion. The jazz trio – Bob Degan, Thomas Kramer and Stephen Schmolck – are probably the reason the Ed selected this curates egg for me in the first place. 'Competent' is a fair description. They work through three pieces by Ellington, Degan and Victor Young. The recording is good but not outstanding. The piano feels a bit buried in the mix with cymbals and snare drum dominating in the first number, Ellington's 'It don't mean a thing'. The most successful and freely played of the numbers is Degan's own composition 'Joy in the form of sadness'. This really stands out with a truly live feel and much Jarrett like singing along with his playing. A mixed bag then, but one that gives you plenty of scope to explore a system with just a single disc.

Supplier: **Audiofreaks**

DD





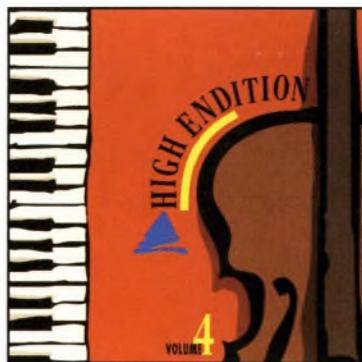
## HIGH ENDITION

Volume 3 HEE CD 003

Volume 4 HEE CD 004



It was refreshing to hear that, in a tiny but effective way, one of the organisers of a major European show (Frankfurt) was prepared to reinvest some of the proceeds into a project for the benefit of its sponsors, the public. Others seem to approach these annual events solely as a self-serving, revenue raising exercise, where exorbitant exhibition and entrance fees underwrite another year's hackneyed activities. Our pastime deserves far better. Perhaps I am guilty of placing too greater emphasis upon these particularly striking musical excursions from the High End Society? But I am impressed by their gesture. At one level both these CDs have been produced with such a degree of accuracy that they can be usefully and, to my mind, meaningfully be employed as assessment tools. The seriousness of this task can be seen from the detailed liner notes of, for example, the Russian vocal collection (*High Endition Volume 3*) which pictorially shows the spread, location and types of microphone used to get inside the body of a truly stunning Mariendon church acoustic. Here, once you get beyond some fascinating vocal tuning in 'Proben' (Dom Leer), the Aleko ensemble engage in rich and fulsome singing. Rarely have tenor, baritone and bass been so naturally heard and reproduced. While the repertoire itself may not be something that you will return to everyday, it is still beautifully composed and executed music. Forgive me if I am wrong, but music is what we should listen to at home – not recordings of bangs, whistles, explosions or jet engines! Consequently,



I contend that we should make our equipment value judgements on the basis of music as opposed to noise. Unveiling the cadence, pitch, register and harmonics of a human voice is one of my prerequisites where this is concerned. Another would have to be a natural recreation of those robust, tactile images surrounding textured low cello strings and the crisp, transparent decay of plump and sonorous piano notes. The recital disc (*High Endition Volume 4*) adheres to these laudable qualities with a rendition of chamber works by Frescobaldi (*Toccata*), Granados (*Intermezzo*) and another half a dozen pieces penned or transcribed by Gaspar Cassado.

This recording, utilising a sophisticated microphone arrangement, is made all the more listenable through notable virtuosity and interaction between Rudolf Mandalka (cello) and Maria-Barbara Nytsche (piano). While sonically this disc represents an audiophile object of desire it also stands out as musically significant in its own right. Now go impress the dem room.

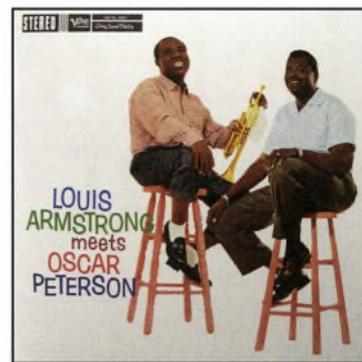
RP

HIGH ENDITION VOLUME 3

RECORDING   
MUSIC 

HIGH ENDITION VOLUME 4

RECORDING   
MUSIC 



## Louis Armstrong meets Oscar Peterson

Classic Records/Verve MG VS-6062 

Two of the greats in one of those oft engineered collaborations so beloved of Jazz labels. Of course, the improvisational and collective nature of the genre lends itself to such showcasing, but all too often the result is rather less than the sum of the parts. It is here too, but that doesn't mean this is a bad record.

Personally I'll take either of the major protagonists solo, but it has to be said that Peterson, the consummate, urbane stylist provides the perfect foil for the latter day Armstrong's vocals. And there's the rub. If you want Satch and his cornet then you'll need to look an awful lot earlier than this. The odd horn solo shows that effortless deftness of touch and improvisational subtlety, but it's Satch the singer you are paying for here. The backing from Peterson's rhythm section, rounded out with Herb Ellis on guitar is fluid and faultless, underpinning Peterson's sinuous lines and anchoring Louis' elastic phrasing. The voice is big, present and central, the instruments spread with Peterson's piano to the left. Staging is open and coherent, with Verve's warm house sound scrubbing up beautifully in the re-pressing. Surfaces are flat and wonderfully silent. But whilst it's impossible not to love Armstrong's voice, every time he picks up his horn it reminds you what he's really good at.

Supplier: Vivante – [www.vivante.co.uk](http://www.vivante.co.uk)

RG  
RECORDING   
MUSIC 

# Reference Recordings at Twenty-Five

by Reuben Parry

For a quarter of a century “Prof.” Keith O. Johnson has stepped up to the base plate, freed the shoulders and peppered the stands with a series of jazz, classical and vocal recordings. Pure analogue LPs, 45rpm cuts, 180gr HQ repressings and the relatively recent development of a HDCD format has proven him to be much more than a journeyman pinch hitter. In fact this evolution from an analogue tape recorder (using an arcane “focused-gap” technology) for record production, to the co-invention of a High Definition Compatible Digital Mastering technique, showed a surprising flexibility of thought where the analogue/digital debate was concerned. This unprejudiced approach has helped to ensure the labels’ financial stability and continued a firm commitment to those underlying engineering and production principles on which the company was founded. Understandably, the consistency of Reference Recordings has received plaudits around the world. Over a dozen LPs, alone, have made it on to Harry Pearson’s super disc listing for *the absolute sound* magazine – earning them a merited “Industry” stamp of approval even on the odd occasion when the quality of repertoire has dipped. A ninth Grammy Award nomination (Keith O. Johnson’s fourth for engineering) was achieved early this year for the Minnesota Orchestra’s *Bolero!* collection of fireworks (RR-92) HDCD. The three previously nominated titles for engineering awards were the Arnold *Overtures* (RR-48); Stravinsky *Firebird Suite* (RR-70) and an excellent Bruckner *Symphony No. 9* (RR-81) under Stanislaw Skrowaczewski’s baton. No mean feat for a small San Francisco-based independent label.

Now, as part of their Silver Anniversary celebrations, Reference are returning again to their back catalogue and reissuing HDCD transfers from a number of analogue master tapes that originally appeared as LP releases. These two CD sets are very competitively priced – costing no more than you would expect to pay for just one CD. The first of these “two-fer” bargain packs was released back in June and in terms of repertoire, performances and renowned acoustic properties, it certainly represents tremendous value for money.

This collection of *Baroque Favourites* (RR-2101) was, in a former life, released under the *Popular Masterworks of the Baroque* (RR-13) and *Vivaldi/Bach* (RR-23) titles. The latter features Albert Fuller (harpsichord) and the Helicon Ensemble in a lively and intensely musical rendition of *Sinfonia in C*, *Trio Sonata in G minor*, *Concerto in E-Flat* (Vivaldi) and *Prelude in C*, *Trio Sonata in C*, *Concerto in D minor* (Bach). While the companion disc, which was originally a dynamic 45 rpm cut, is a joyous celebration that includes sugary lollipops like the *Entrance of the Queen of Sheba*, Pachelbel’s famous Canon, Handel *Water Music* and highlights from Book 3 of Telemann’s *Talelmusik Suite*. Lifting these tracks through an HDCD encoding process reveals great spatial information, fine levels of resolution and sublime accuracy. Keith O. Johnson and his co-collaborator, Michael Pflaumer, can be congratulated for developing this superior digital system which is now employed on all of References’ new CD releases.

The second of the “two-fers” is if anything even more generous. *Medinah Sessions* (RR-2102) combines three albums by the 1986 Grammy Award winning Chicago Pro Musica. All were recorded with true virtuosity in the windy city at Medinah Temple, and they simply showcase musicians who are undeniably comfortable throughout a quite varied repertoire. Amongst the entertainment found here is Walton’s *Facade* and a Franz Hasenorl arrangement of the Richard Stauss *Till Eulenspiegel* taken from (RR-16). There are also colourful chamber versions of the Rimsky-Korsakof *Capriccio Espagnol* and Stravinsky *L’Histoire du Soldat* (RR-17) and, of course, lastly, what about a belting performance of Kurt Weil’s *Threepenny Opera Suite* (RR-29) to whet an appetite? Whilst I now bemoan the fact that Reference no longer press these works on vinyl, they have at least compensated us all, “very nicely thank you”, with a sonically splendid HDCD presentation. It is worth knowing that a limited LP stock of certain recordings do still exist. So remember to check the Vivante and Cherished Record Company shelves. ▶

► The success of Reference Recordings has been established through old-fashioned determination and longheld willingness to push a technical envelope no matter what the medium. Imagination and pragmatism are principles that have underpinned both the analogue and digital processes. Clearly a move to an exclusively HDCD format has greatly aided the viability of this company. So has the fact that Reference is not primarily a reissue label. Witness the demise of on-again-off-again DCC and the now defunct Mobile Fidelity. Making new recordings, especially of orchestral and large-scale choral pieces, remains an expensive exercise in terms of venues, musicians and engineering time. It eats into the budget. However, as if to confirm the favourable trading circumstances, fresh releases have appeared more regularly than in the past. Concentrating on the compact disc has broadened the potential customer base – as has an association with the exciting young conductor, Eiji Oue.

Oue has grown in stature throughout Minnesota Orchestra performances of *Pictures at an Exhibition* (RR-79), Bernstein's *Candide* (RR-87) and a magnificent Copland *Third Symphony* (RR-93). They, alongside the recent Jase Serebrier interpretations of *Scheherazade* (RR-89) and his own *Partita, Fantasia, Winterreise, Sonata for solo violin* (RR-90) cut with the London Philharmonic at Watford Town Hall, are the kind of attractive releases which should guarantee the labels future.

We now come to the controversial bit: my wholly subjective choice of favourite Reference discs. Some of you will undoubtedly disagree with them, others may be frustrated by those recordings selected that only ever appeared on vinyl. Then again, a few may just give me a passing nod in agreement.

Up there near the very top of my list is a fabulous Turtle Creek Chorale account of the John Rutter *Requiem and Five Anthems* (RR-57) that was reviewed in issue 5 of Hi-Fi +. While my personal preference would always be for a solidly cut 180gr LP, this HDCD is the sweetest substitute. An emotionally-charged, valedictory and massively staged work, where "Prof." Johnson and producer J.Tamblyn Henderson, Jr. memorably capture the essence of over three hundred voices in the diaphanous acoustic at the Dallas Morton H.Meyerson Symphony Centre, is a definitive version.

Tempting as it would be to recommend en masse all

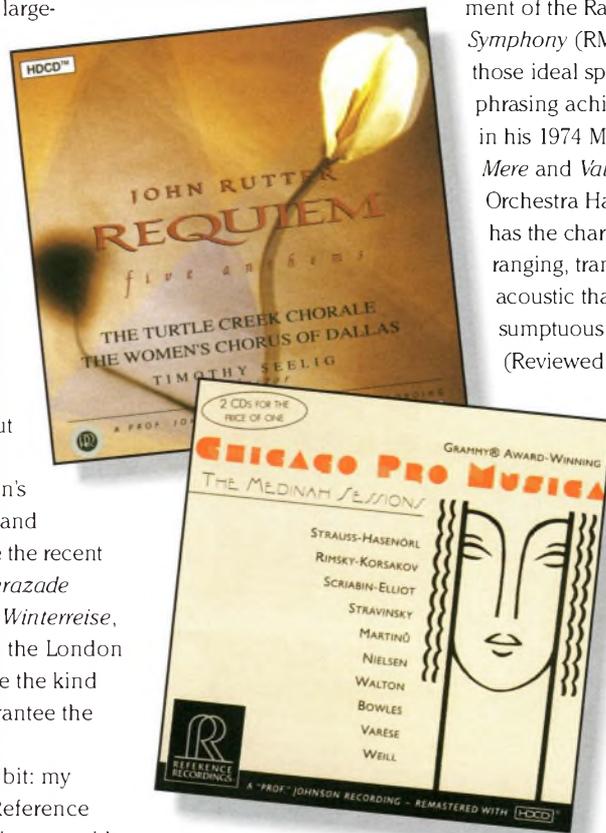
five of the now hard to find Reference Mastercuts, I will instead exclude both of their Gershwin LPs (RM1003) and (RM1005), together with the first of Stanislaw Skrowaczewski's Ravel discs (RM1001) that marked part of Reference's rare foray into a reissue arena. However, as a caveat, I say "buy them if you see them" because as recordings and performances go these are very good. But of the Doug Sax Vacuum-tube remasters I'd choose the St.Louis Symphony under Leonard Slatkin's baton in their perceptive and eloquent 1978 treatment of the Rachmaninov *Second Symphony* (RM1002). Nor can I ignore those ideal speeds and exquisite phrasing achieved by Skrowaczewski in his 1974 Minnesota reading of *Ma Mere* and *Valses Nobles* (RM1004). Orchestra Hall, Minneapolis has the characteristically wide-ranging, transparent and ample acoustic that really suits these sumptuous Maurice Ravel scores. (Reviewed Hi-Fi + issue 2).

There are, too, those classical cabaret arrangements of American popular song with the versatile soprano, Eileen Farrell, who in the twilight of an auspicious career gives affectionate, indispensable celebrations of the Harold Arlen (RR-30), Rogers & Hart (RR-32), Alex Wilder (RR-36) and

Jonny Mercer (RR-44) songbooks.

Yet, when I want to be truly immersed in those magical properties that have come to typify performances and recordings from this source, I will more often than not turn to any one of the three extraordinary Keith Clark/Pacific Symphony releases. While the conductor and this orchestra are not household names over here, some of America's finest free-lance musicians are to be found amongst their ranks. Moreover, the soloists, Marni Nixon and Ruggiero Ricci, are definitely straight out of the top drawer.

For the first of these ignore those misleading epigrams which prefix the four movements of Ottorino Respighi's neo-classical work. They appeared as a postscript only once the score was finalised. Therefore the acres of



► Italian stained glass associated with *Church Windows* (RR-15) is quite fanciful – especially as this tone poem is derived from an earlier keyboard composition, *Three Piano Preludes on Gregorian Melodies*. Nevertheless its grandiose orchestrations with pipe organ and tam-tam conjure some wonderful images in this evocation of plainsong. Originally cut at a wicked 45rpm, the acoustic is beautifully open, ambient, finely etched instrumentally and incredibly dynamic. Still available as a CD transfer, this Santa Ana High School Auditorium recording features as a bonus the incomparable violinist, Ruggiero Ricci, in 'Poema Autunnale'; but more of him and his exploits for Reference later.

Keith Clarke and the PSO are even more irresistible when playing music by indigenous composers. A quintessential American work like Aaron Copland's *Appalachian Spring* (RR-22), heard here in its original chamber version for thirteen instruments, takes those familiar idyllic themes found in an early nineteenth century religious landscape of the Pennsylvania mountains and distils a charmingly intimate rendition in keeping with its pastoral wedding motif. Paring back the musicians to bass, two cellos, four violins, two violas Michael Zearott's resonant piano and a single flute, bassoon and clarinet, lends a refreshing clarity to Copland's self-styled chord structure. Emotionally affecting and lovingly taped.

Once again the CD transfer claims the additional track – *An Outdoor Overture*. But the main companion piece is Marni Nixon's light and rhythmic phrasing of the *Eight Emily Dickinson Poems*. She caresses the words into accessible, symbolic-charged patterns that are inherent within the Dickenson verse yet seldom fully revealed in recital. Appropriately, these pieces of simple brevity, including 'The Chariot', 'Nature, The Gentlest Mother', 'The World Feels Dusty' and 'Heart, We Will Forget Him', are unobtrusively set to music. Allowing her themes of death, nature, life and eternity to be unmasked through clear enunciation. Nixon, best known? For the Hollywood dubbing of singing voices in *The King and I*, *West Side Story* and *My Fair Lady* just brings an enviable purity of tone to proceedings.

For visible greatness, virtuosity, sublime technique and charisma I look no father than a 1992 recording of the *Menotti/Barber Violin Concertos* (RR-45). A spine-tingling

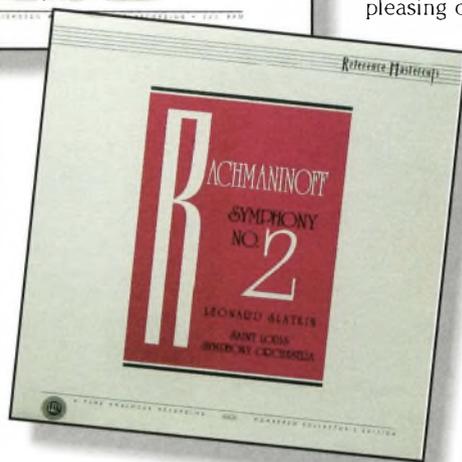
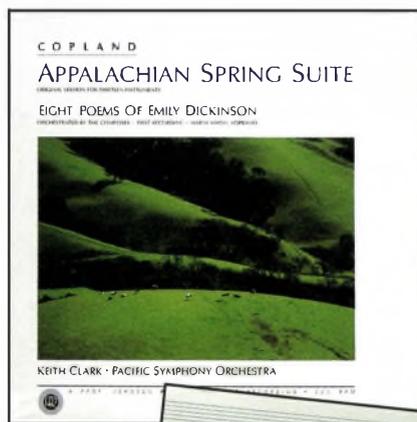
advocacy of such modern composers by one of the Twentieth Century's pre-eminent violinists, Ruggiero Ricci, raises these works to heights of new intensity. It's obvious from the Barber *Concerto's* opening violin solo in, 'Allegro Moderato', that Reference favour a natural orchestral balance where the soloist is not unduly spotlighted through microphone placement – Ricci, though, is still a focal point. Those expansive, sonorous and beautiful images cast by this dextrous bowing on his favourite 1734 Guarneri Gesu violin, gloriously disclose lyrical textures and some alternating moments of light-heartedness and jarring enormity found in a Barber final movement, "Presto in moto Perpetuo". Here, the maestro subtlety and stylishly also recalls square dance form.

The rarely heard or recorded demonstration quality Menotti *Concerto* again shows an unequivocal empathy Clarke, Ricci and the PSO players feel for fluent, home-spun tunes that remain so melodically pleasing on the ear. This record vies

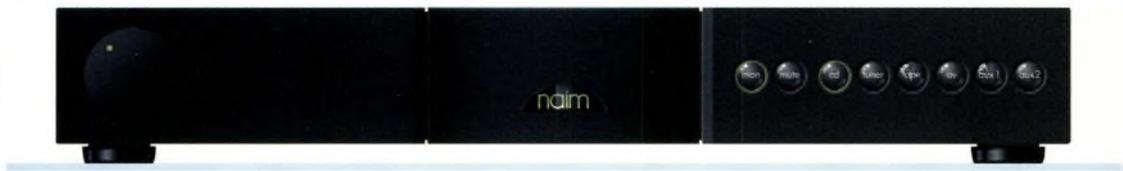
with *Appalachian Spring* for a place at the top of my favourites list.

My last selection is one fantastic 24-bit treatment of Anton Bruckner's hour long *Ninth Symphony* (RR-81). Another old war-horse, the Minnesota Orchestra conductor laureate, Stanislaw Skrowaczewski, explores the farthest reaches of

the imperious D minor work. An immense, visionary and spiritual symphony, the Ninth, through its' three main themes, elaborate counter-movements, dramatic pauses, climaxes, tempo and dynamic shifts, gets the experienced and mature conductor it needs to elicit all the invention, craftsmanship, colour and radiance present in this score. Since the Mercury days of the fifties and sixties, when Antal Dorati ran a drillmaster's eye over proceedings, Orchestra Hall Minneapolis has proven to be a marvellous recording venue. This, too, is one of those special occasions when engineer and producer get everything technically right. "Bench-mark" performances all-round – which is pretty much where they began twenty-five years ago.



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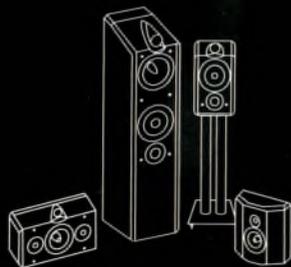
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