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REPRODUCING THE RECORDED ARTS

Issue 2 - August 1999
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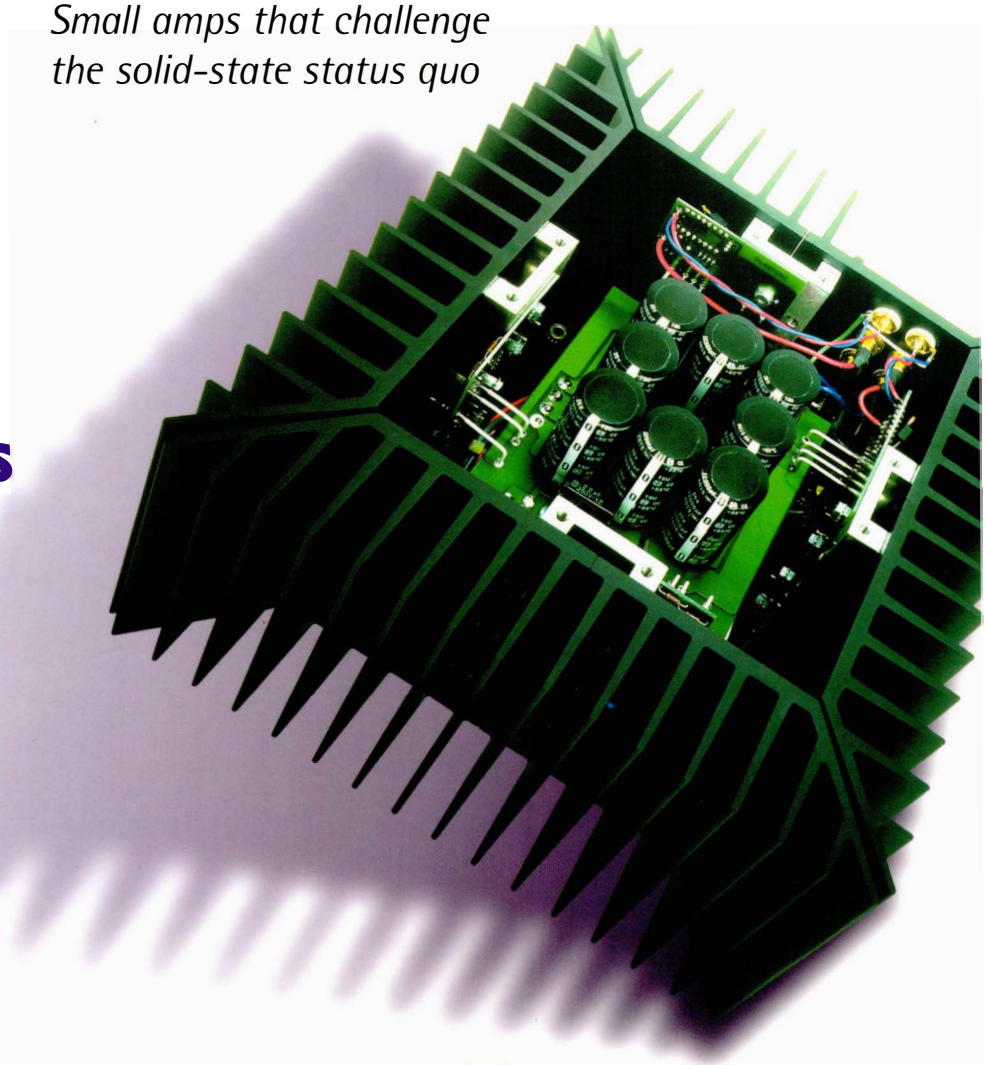

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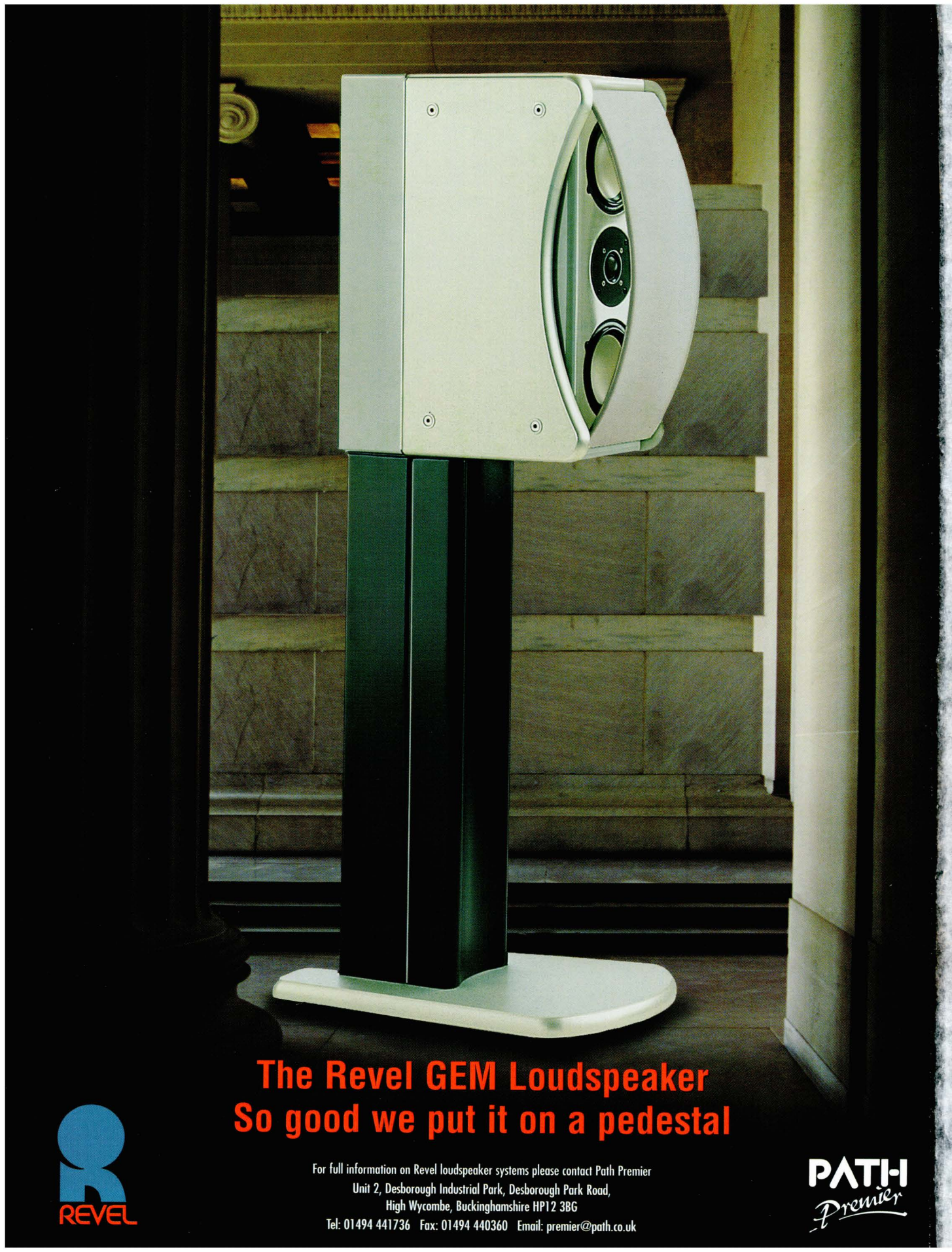
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Editorial

Look at the news pages in this issue, and you'll see a lot of space devoted to the subject of shows. And why not? They offer new products, and the chance for the general public to rub shoulders with designers and manufacturers. Everyone agrees. Shows are a good thing. But they are also big money spinners, and therein lies a problem.

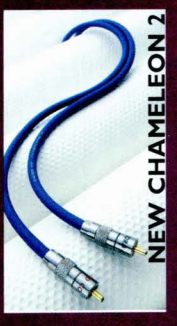
The big, international shows are expensive for companies to attend, which is okay if you are already successful, but if you are still on the way up, or keeping your company small and targeted, then you face a dilemma. You can't really afford to exhibit, but you can't really afford not to. Most companies in that position end up busting their promotional budget to go to the show, in search of international business, only to find that their domestic sales suffer because they can no longer afford to support advertising or dealer based events. Consequently, big, expensive shows support the status quo, at the expense of emergent companies and hi-fi enthusiasts who don't live close enough to attend them.

When they are organised by a magazine the situation is even worse, adding an exhibitors advertising budget into the equation, and creating a straight business relationship between the magazine and the exhibitors whose products are going to be submitted for review. I wonder who'll get the best rooms? Not the biggest advertisers by any chance. And even greater investment means greater potential leverage.

Given the almost universal dissatisfaction over the choice of the Hammersmith Novotel as the venue for this autumn's Hi-Fi News show (try getting to that one by car!), isn't it about time the industry took it upon itself to promote its own show on a non-profit basis? Couldn't one of the trade bodies, BADA or the FBA step in? And the first question they should ask is whether the show should be in London at all!

Roy Gregory

I HEARD IT THROUGH THE GRAPEVINE.



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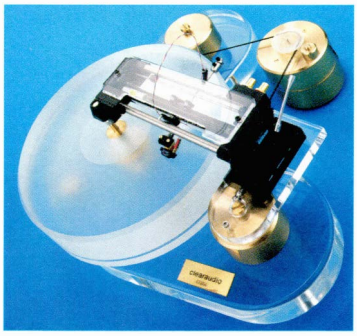

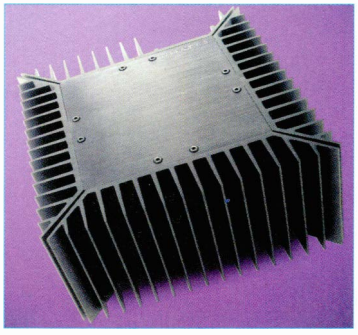

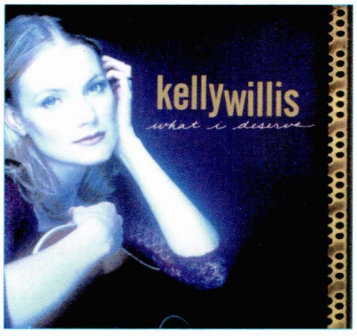

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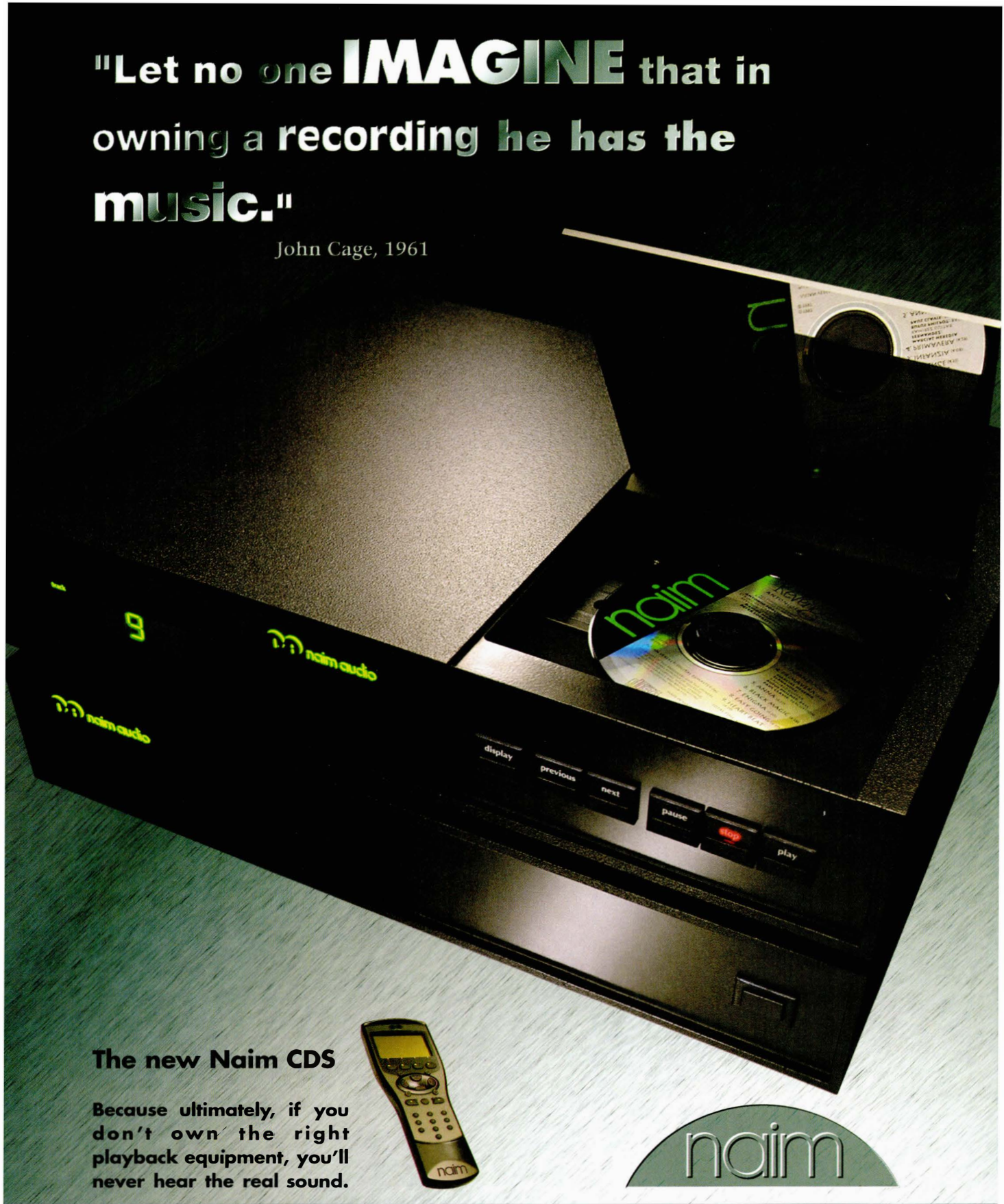
John Cage, 1961



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Playing The System

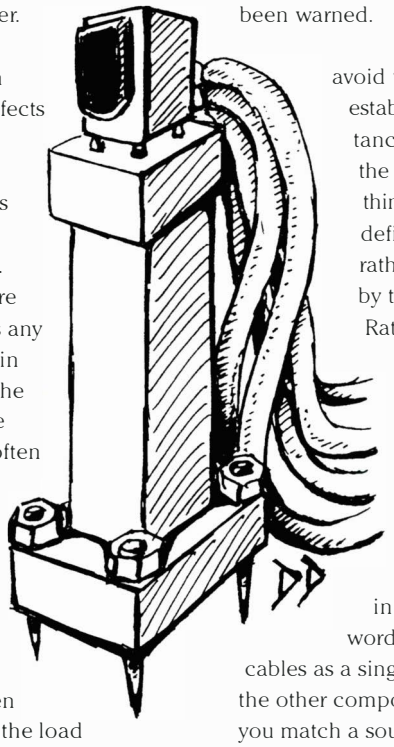
by Roy Gregory

Of all the subjects in hi-fi, there is more rubbish written, more outlandish claims made for, and more angst expended on cables than any other products. Rarely has something so straight forward been so comprehensively misunderstood and universally mis-applied. And yet, done properly, cables have an essential part to play in maximising any system's performance. If you actually stop and think it through logically, then it's a fairly simple thing to cable a system properly. Why do so many people get it so badly wrong ?

We looked at the importance of cables in Issue 1, and discovered that in blind tests, listeners could easily distinguish between different budget cables, let alone cheap cables and their more expensive brethren. Clearly cables can make a significant difference to the performance of your system, as long as you get it right. I gave a brief introduction to cable strategy in that article, but it seems sensible to go into a bit more detail here.

When it comes to buying hi-fi, there's a natural tendency to concentrate on the boxes. Things like cables end up a very poor second, if that. Marginalised, they end up being treated as anything from irritatingly necessary afterthoughts, through to after the event cure-alls. All of which does your system, and hence your musical enjoyment, no good what so ever.

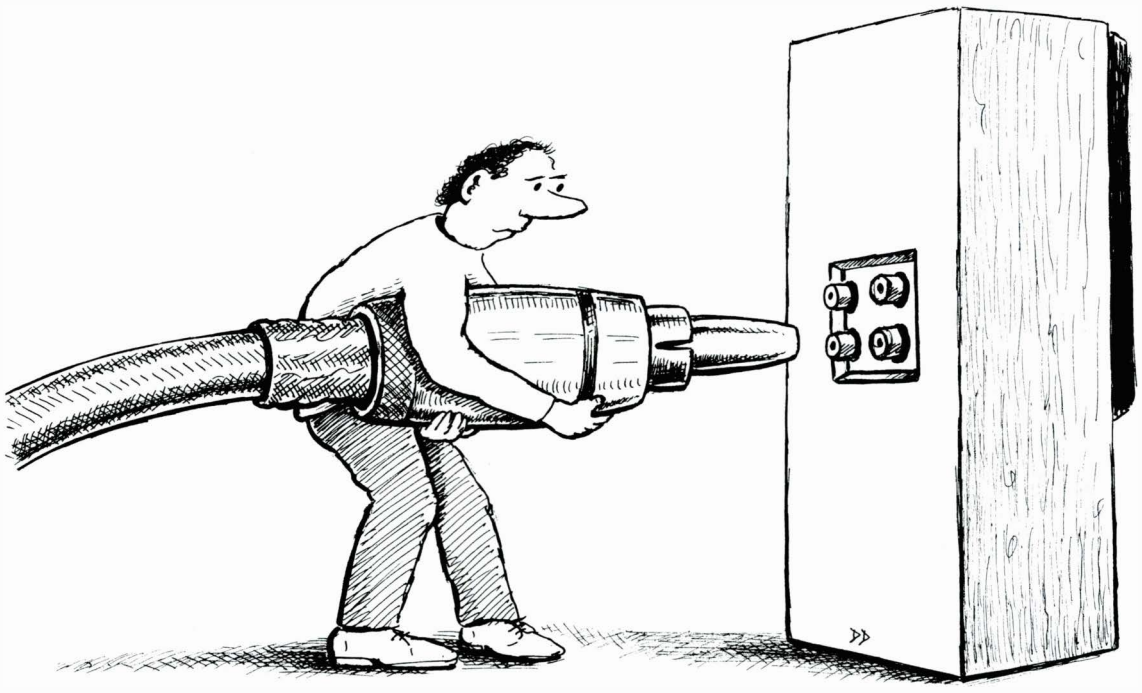
The way in which cables are marketed as accessories and "upgrades" merely reinforces the notion that they are a secondary issue, and encourages their use as tone controls. Hair shirt purists who wouldn't dream of allowing "unnecessary" features to cloud the purity of their vision, are quite happy to tinker for hours with different cables in search of a perfect match for the dodgy top end on their new CD player. And don't get me wrong. Cables can have significant effects on the tonal balance of a system. Unfortunatly, this is only their most obvious influence. Electrically they are just as complex as any other component in the chain. Whilst the ear is drawn to the tonal changes, it often misses the subtler but musically more significant influence that cables exert.



In fact, your cable loom will effect the load seen by your cartridge, the load seen by your power amp, the overall phase characteristics and dynamic range of the system and its immunity to RF and mechanical interference. So wide reaching are the implications that we should actually treat the cabling as the foundation on which the system rests. Only by doing so will we realise the full potential of the "all important" electronics. Neglect them ,and your cables will blinker, confuse and generally impede your musical pleasure by hobbling your equipment. You have been warned.

So how do we avoid these problems ? By establishing the importance of the cable loom in the overall scheme of things, and allowing it to define its own character rather than being defined by the products around it. Rather than choosing cables as an appendage to the various electronic boxes, we need to consider the cable loom both as a whole, and as a vital component within the system. In other words, you choose your cables as a single entity, matched to the other components, the same way you match a source, amp and speakers, rather than matching individual wires to specific black boxes.

What's the big advantage ? In a



word, coherence. By wiring your entire signal path with cables from a single manufacturer, you ensure that all your interconnects and speaker cables share a common set of design criteria. You can also bet on the fact that they will have been designed together and will thus form a complementary pairing. The result is a better balanced and more musically coherent sound, which in turn results in greater presence, stability and rhythmic integrity. In short, more music, and more fun.

One of the great strengths of Naim systems has always been their sense of solidity and dynamic coherence. This is down to a great many things, but don't under estimate the importance of the cables having been treated as a given. By defining the interconnects and speaker cables from the start, their characteristics are compensated for automatically in the design and listening process. That's why Naim systems can not only survive quite happily with distinctly low tech cables by current standards, they are also remarkably resistant to re-cabling with more exotic alternatives. Interconnects in particular tend to produce a sound which is different rather than better, and which destroys the coherence of the system as a whole.

The same thing applies, to a lesser extent, with the cables in your system. If they all come from a single source, then they will share a common character and a coherent musical perspective. Start mixing and matching and you'll end up with a whole host of electrical and most importantly, phase characteristics. The result will be to apply a different "filter" at each junction in the system, fragmenting the musical whole into a disjointed puzzle in which the pieces are different thicknesses and the pictures on them are in different scales. No wonder most hi-fi bears less than a passing resemblance to reality!

In order to maximise your system's performance it is essential to create a coherent cable strategy. Ideally, all critical line level interconnects should be the same. Not just the same make, but the same cable. Sure, if you use a cassette deck to make tapes for the car you don't need to hang two sets of £500 Symphonic Bombast Music Hose on it, just because you run that in the rest of the system. But the phono stage, line stage, CD player and power amp should all be wired with it. And a couple of sets of SB's basic String Dipped In Vinegar certainly wouldn't be a bad idea.

Likewise, carry the theme through to the speakers. Music Hose as an interconnect ? Then it's got to be Symphonic Bombast Seismic Event speaker cables ! And if you are bi or even tri-wiring then make sure you use exactly the same cable on each leg of the cross-over.

There are exceptions, and they're both to do with source components. The most obvious is your tone-arm cable. This cable actually forms part of the load seen by your cartridge, and hence both its impedence and capacitance are critical. Only ever use a cable specifically designed for the purpose. Having said that, the world has come a long way since vdH 502 ! Take the example of an Orbe / SME 5 / Clavis DC. You end up feeding the

signal from four and a half grands worth of record player down a £25 tone-arm lead. You CAN do better. The combination of a decent termination box for the tone-arm (Transparent Audio Marketing, Graham, Mod Squad) and a good after market lead (Audioplan, Cardas, FM Acoustics to name a few) transforms the performance of a turntable like this. The signal is so small and the cable so close to the front of the system, that improvements made here really pay off!

The other exception is the vexed question of digital interconnects. You know, the ones that run between a transport and DAC. Not only do they possess a defined transmission standard (75 ohm / AES-EBU) but they include Optical leads as well. Only God in his infinite wisdom can fathom the reasons that prevent digital designers using the excellent BNC option, a connection that would give every DAC owner a zero cost upgrade in CD sound quality. Whatever the connection, digital leads do have a profound effect on sound quality. By all means start with a lead from the same guys who designed the rest of your cables, but the performance parameters are so different here that it's pretty much a case of anything goes. Try as many cables as you like, and make sure that you investigate the transmission options at the same time.

And while we're on the subject of cable comparisons, beware of A/B testing cables. Not only does it favour cables which feature clarity and dynamics at the top of their performance criteria, often at the expense of harmonic development and tonal balance, but it ignores the fact that the sound of a cable actually changes over time. I'm not referring to the fact that they run in either. Whilst burning in cables and components has finally become an accepted part of assessing hi-fi, it's far from the whole story. Even the sound of a well run-in cable changes over a period of days. The most logical explanation for this is that the cable is acting as an inefficent capacitor and it takes some time for the insulation / dielectric to become fully charged. Right or wrong, the effect is easilly audible.

Mechanical effects are also often overlooked. Simply moving your cables will effect their sound, presumably because it disturbs the crystal structure of the conductors. In the worst case, moving a set of Purist Audio Design's water damped cables causes a complete loss of bass, which then takes several undisturbed days to reappear! All of which should show you the folly of rapid judgements when it comes to cabling (as well as completely invalidating all those multiple cable reviews!).

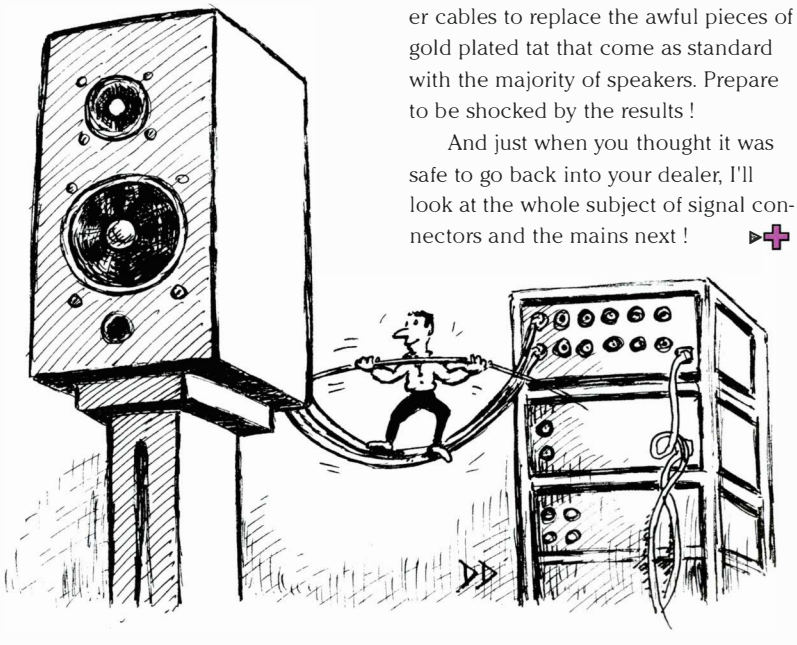
How do you choose cables then? You allow your dealer to recommend a cable brand which suits the equipment you're using or choosing. Try it at home for a few days. If it doesn't work try a different set. If that doesn't work then odds on there's something awry with the choice of equipment. Remember, whilst bad cables will ruin a good system, good cables can't repair a bad one. Don't start tinkering with the cables in an effort to correct a problem that is actually else where. Doing so is simply turd polishing, and two wrongs never did make a right.

The implications of this are actually really good news. Follow the rules and cabling your system has never been so easy - and your system will be sounding better than ever.

- Follow your dealer's recommendation as to the most sensible brand of cables to use with your equipment. (They have more experience than you and should have the right cables to exploit the equipment they sell.)
- Include cables in your initial budget, allowing a minimum of 10 - 15% of the total to cover them.
- Use the same cables throughout your primary chain.
- Don't rush to judgement. Let everything bed in before you make any decisions.
- And finally, just to really stir things up, don't assume that bi-wiring is better.

Compare a single cable (and some decent jumpers) at twice the price, to the two runs of cheaper cable needed to bi-wire. You may be surprised. On the subject of jumpers, many companies will fit short flying leads to speaker cables to replace the awful pieces of gold plated tat that come as standard with the majority of speakers. Prepare to be shocked by the results !

And just when you thought it was safe to go back into your dealer, I'll look at the whole subject of signal connectors and the mains next !



Home Truths

by James Michael Hughes

One positive trend among so much doom and gloom in the classical record industry is the steady flow of enterprising and adventurous new titles from budget labels like Naxos. Among recent issues was Sir Arnold Bax's Second symphony with David Lloyd-Jones conducting the Royal Scottish National orchestra - 8.554093. What an incredible bargain! When I started collecting nearly thirty years ago, there was only one recording of this work; on Lyrita, conducted by Myer Fredman.

At full-price (a little over $2) it was way beyond my financial reach. Luckily, I was able to borrow this LP from my local library. Lyrita's rich sumptuous recording, superbly engineered by Decca's Kenneth Wilkinson, was mightily impressive. From that day, Lyrita became the most aspirational of record labels! The music impressed too, though to be honest I can't say the work (or any Bax symphony) ever became a firm favourite. They're occasional pieces, rather than something you play constantly.

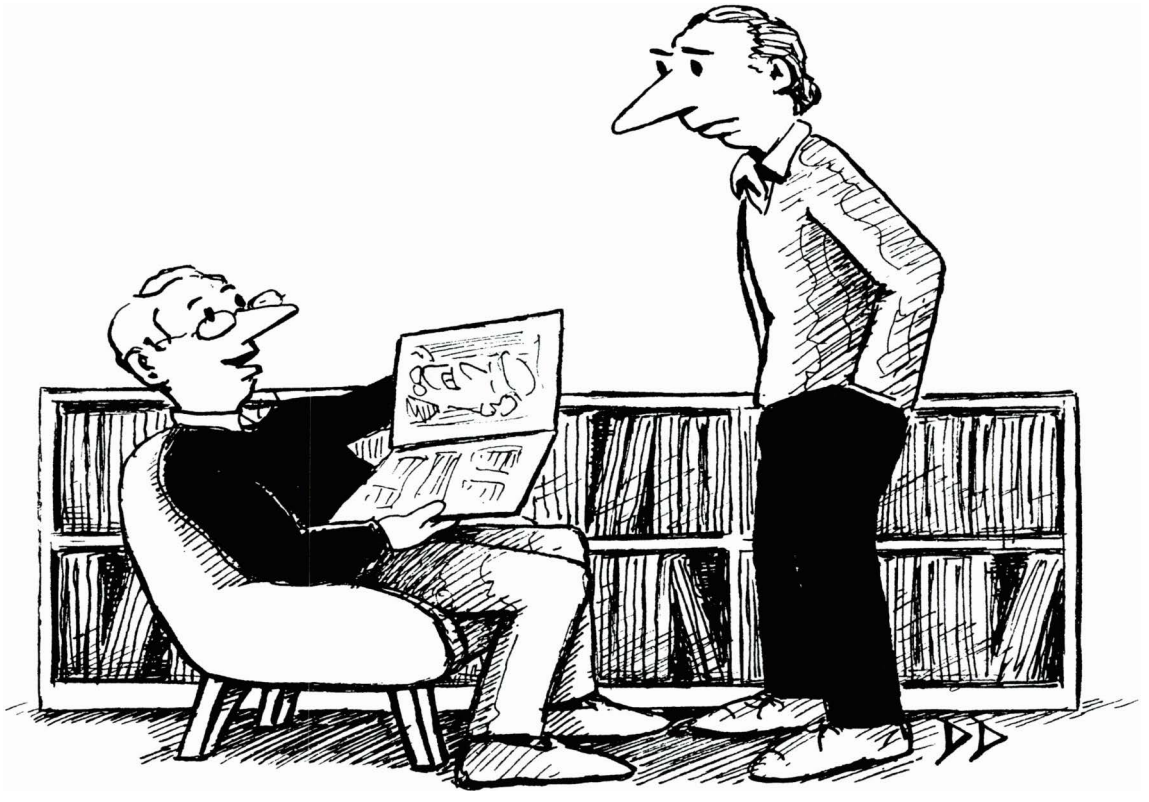
Written in the late 1920s, Bax 2 is a fine work, well-crafted and expertly scored; the music might not be as memorable as (say) Walton's first symphony, but it's well worth hearing. By turns rugged and lyrical, it has some trenchant moments - the entry of the organ in the finale (6m 51s, track 3) is dramatic, given a hi-fi system with deep bass capability. The music would make a good film score - and not in the pejorative sense. Bax was adept at creating atmosphere, and the bleak gaunt opening conjures up a mood of horror and foreboding.

Everything has its price. Bax 2 at $15 might be a luxury, but at $5 it's definitely worth buying. Especially as the Naxos recording is so good. The sound is clean and focussed, with lean brilliant brass, crisp percussion, and firm deep bass. Unlike Brydon Thompson's excessively resonant Chandos recording, the sound is not overly spacious, but nicely 'present' without being too forward. Anyone wanting an excellent performance of this work in top-class modern sound need look no further.

What's interesting is the way that issues like Bax 2 on Naxos are redefining the status of budget CD labels. Ten years ago, Naxos was trying to plug gaps in the basic repertoire, offering (at the very least) serviceable performance of the standard classics in decent digital sound. Now, you're more likely to find a symphony by Alfven or Arnold on the Naxos new release sheets, than one by Beethoven or Brahms. At just $5 each, you can afford to be adventurous..

Curiously, the major record companies don't seem to have got the message, and continue putting out CDs at $16+, often by up and coming artists. With a dearth of international classical superstars, new issues are becoming more and more repertoire led - almost by default. Gone are the days when you'd buy Karajan's or Bernstein's latest disc simply

"At last..... 1000g pressings!"



"I've waited a long time for an audiophile pressing of Bert's Swinging Safari*".*

because you collected everything they recorded. Nowadays I'm guided by repertoire and price.

Even full-price issues no longer command top-dollar. With big outlets like London's HMV shop having a more or less permanent sale, even full-price issues soon drop to something more manageable. All you have to do is wait... For those outside London, there are quite a few mail-order companies that offer excellent discounts on new releases. Even Naxos is subject to periodic 'five for $20' offers!

All this has ramifications for the new super CD when it's finally launched. If the discs sell for significantly more than conventional CD's, I wonder how many people will want to buy them. Even if it's offered at the same price as conventional CD, but not discounted, it will be perhaps 20% to 30% more expensive. Unless there's a definite improvement in sound quality over CD that's clearly audible, even on a typical, average (non-audiophile) hi-fi system, my guess is most punters will balk at paying extra.

CD is plenty good enough for most people. The audiophile community is small, and by itself doesn't represent a mass market. For space reasons, LP and CD couldn't co-exist side by side; one had to go. Record shops, even big ones, simply don't have the space (let alone the cash) to keep in-depth stocks of music in two or three conflicting formats. Once a format is sidelined, it goes into a downward spiral in terms of sales. It happened to the LP, it happened to pre-recorded tapes.

There's no doubt the rapid acceptance of CD by consumers after 1985 was fuelled more by its user convenience than its much-vaunted 'perfect' sound quality. Contrary to what's sometimes said, the vast majority of people who switched from LP to CD were not unhappy with vinyl. It was CD's toughness and ease of use that won most listeners over. CD makes you lazy! Suddenly, playing LPs seemed like a chore.

A super CD will doubtless offer improved sonics, but it can't better conventional CD in terms of durability or ease of use. Therefore, its appeal will be to the discerning listener - someone who's currently unhappy with conventional CD and wants something better. But are there enough listeners like that? Alas, for whatever reason, mass-market interest in sound quality seems to have nose-dived in recent years. At least that's my impression. Better sound is no longer the Holy Grail it once was. For most people Good Enough is Good Enough. Nevertheless, I could be wrong; we certainly live in interesting times!

Speaker's Corner

by Paul Messenger

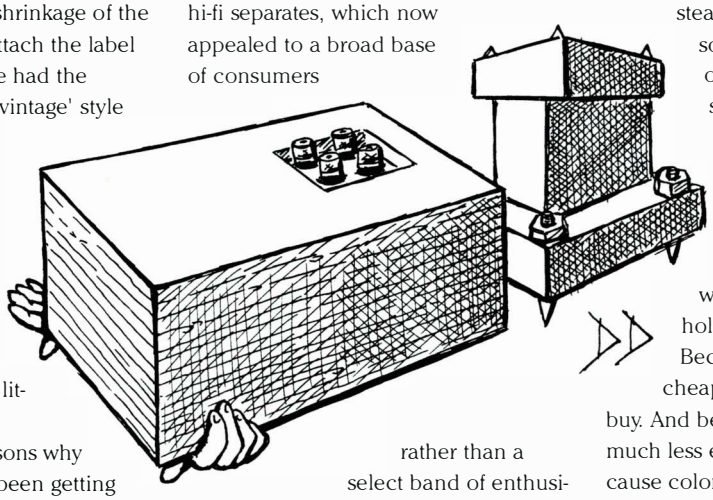
"There's no substitute for cubic inches" is a favourite quote of mine, attributed to automobile pioneer Mr Chrysler, but one that seems just as applicable to loudspeakers as it is to car engines.

If you look at the whole history of hi-fi evolution, going back over the last fifty years, one of the most obvious trends is slow but sure shrinkage of the speakers to which we attach the label 'hi-fi'. Yet every time I've had the chance to try a pair of 'vintage' style speakers - invariably large boxes with high sensitivity - I've always found the experience more entertaining and involving than smaller, more conventional speakers, and found returning to the latter a little disappointing.

There are good reasons why our hi-fi speakers have been getting smaller, over and beyond the obvious appeal of minimising the bulk of a potentially intrusive and none too attractive object.

Turning the argument around, there are several good reasons why speakers used to be so big. Everything was monophonic of course prior to the late 1950s, so one speaker had to produce as much sound as two do in the stereo era. (I'm not getting sidetracked into multi-channel configurations here!) And during the valve era amplifier power was strictly limited, to just a handful of watts in the earlier years. It was more important to have the high sensitivity to make the most of that limited amplifier power, than to go for full bandwidth reproduction.

The big changes happened during the 1960s, first with the arrival of stereo, then the introduction of transistor amps, which promised more power output (on paper anyway) for less money than valve equivalents. Both of these (plus a particularly active and creative music scene at the time) led to the blossoming of a mass market for hi-fi separates, which now appealed to a broad base of consumers rather than a select band of enthusiasts. Now the hi-fi needed to look good as well as sound good, and the easiest and most obvious way to make the speakers look better was to make them smaller.



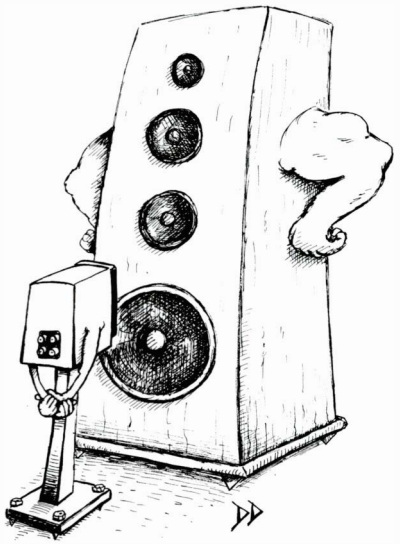
Britain led the way in miniature speakers, with such notable examples as the (original) Goodmans Maxim and the BBC LS3/5A. These classics deserve their fine reputations, and have had a major influence on the way loudspeakers have evolved over the past thirty years.

Miniatures do have their place. After all, the LS3/5A was originally developed in order to provide accurate near-field monitoring within the confined dimensions of an Outside Broadcast van. Where space is tight, a good miniature might well be the best solution.

Indeed, there are several positive advantages in reducing the size of a loudspeaker and its drive units. But it's my belief that our enthusiasm for the compactness as well as the strengths of these tiny speakers blinded (or rather deafened) us to their limitations. The steadily improving quality of sources and amplification over the years has only served to these limitations all the more obvious.

That doesn't mean I believe that this short article is going to turn back an inexorable trend, in which small loudspeakers hold nearly all the aces. Because they're small, they're cheap to produce, to ship, and to buy. And because they're small, there's much less enclosure to vibrate and cause coloration. Furthermore, building a good quality large loudspeaker is much harder than building a small one, so there are far fewer of them around, and a higher proportion of failures too.

But anyone who takes their hi-fi sound reproduction at all seriously, owes it to themselves to check out what a really big and high sensitivity loudspeaker system (the two factors nearly always go together) is capable of delivering. There are trade-offs every which way in loudspeaker design, and smaller, average-sensitivity designs usually hold the advantage in terms of coloration and stereo image precision. The best examples can deliver a wide dynamic range across a broad bandwidth too. ▶



But it's in the dynamics themselves, and the dynamic tension that is the very essence of the best musical experiences, that typical modern compact loudspeakers invariably seem to be found wanting. However well the music is reproduced, it always sounds 'reproduced', and therefore slightly detached or at one remove from the original event. It's a little like standing outside the concert hall, listening through an open widow, rather than being inside the auditorium itself.

You'll get to hear the music and the recorded acoustic all right, but there's little likelihood of being shocked and surprised at how real and lifelike a voice or instrument sounds. When it comes to making the hairs stand up on the back of your neck, small, low sensitivity speakers just don't seem to find the right spot to tickle.

Establishing exactly which specific element is responsible for this superior dynamic performance is virtually impossible. High sensitivity does seem to be the core common factor, but that can be a function of various ingredients. Magnetic flux, diaphragm area or excursion, and loading techniques may all play a part, singly or in combination. But even the simple fact that high sensitivity speakers make the amplifier work much less hard to achieve the same loudness might well be an equally important factor. Since all these variables are interdependent, attempting to pin down cause and effect accurately is next to impossible.

Let's put some figures down instead. The 'average' sensitivity across the broad mass of mainstream hi-fi loudspeakers is around 87dB/W (based on a genuine 1W power input, see sidebar). The least sensitive (and smallest) loudspeakers (such as the LS3/5A) register around 83dB/W, while at the opposite end of the scale, the highest sensitivities I've measured have been around 103-105dB/W, for three full-range(ish) horn-loaded designs.

20dB might not sound a whole lot, but the decibel scale is logarithmic, and in fact it's roughly the difference between the loudness (at low and mid frequencies) of a normally speaking male voice and the sound made by a 15-piece orchestra!

Its effect on amplifier power requirements is arguably even more dramatic. Doubling amplifier power gives a 3dB increase in sound pressure level, so to get an extra 20dB out of a loudspeaker requires a hundredfold increase in amplifier power. Which neatly explains why those who favour ultra-simple, low power single-ended valve amplifiers, tend to partner them with high sensitivity horn loudspeakers. (By the same token, those horn loudspeakers were originally developed for hi-fi use back in the days of low power valve amps and mono operation.)

The changeover to stereo (worth around 6dB just because an extra speaker is helping out) and to higher power transistor amplification enabled speakers to get a lot smaller (and cheaper) by sacrificing sensitivity, while still maintaining the loudness capability of a system.

But I don't use old-style valve amps. My Naim NAP135s pack a very healthy 70W/8 Ohms (and a lot more into 4 Ohms). And in fact the NAC52 pre-amp I also use is rather noisier than I'd like when using very high sensitivity speakers like my own (very large) Rehdeko RK175s (around 97dB midband sensitivity). But that's a minor detail compared to the extra buzz I get from bringing in the Rehdekos after a week or three reviewing smaller and more conventional speakers.

I can't put an exact figure on the sensitivity needed to achieve genuine 'dynamic tension', but my experiments point towards things starting to get interesting at around 93-94dB sensitivity, but tending to get better still as one continues up the scale. As you get up towards these very high sensitivities, however, the speakers do tend to become increasingly quirky and idiosyncratic, so exploring the upper reaches is not for the faint-hearted.

That said, to these ears the rewards are well worth the effort. Once you've lived with full size, high sensitivity speakers for an extended period, going back to the more mundane and conventional is always accompanied by a measure of disappointment.

SPEAKER SENSITIVITY

Sensitivity is a measure of how loud a sound a loudspeaker will create for a specific amplifier input power, nominally one watt. In practice this is invariably a very approximate figure, for at least two major reasons.

First, there's no such thing as a truly 'flat' loudspeaker: all show some variation in output level across the range of frequencies we can hear, especially when you put a pair of speakers in a real room. Secondly, all loudspeakers show a (usually much greater) impedance variation with frequency, and the impedance determines how much amplifier power is drawn.

In practice, speaker sensitivity is measured by applying a signal of 2.83 Volts - the voltage required to deliver 1 watt of power across an 8 ohm resistor load. Many of today's speakers are actually much closer to 4 ohm loads, and therefore take 2 watts when 2.83V are applied, a scenario which flatters their sensitivity rating by as much as 6dB.

High-End News

by Roy Gregory

It's not often that you encounter systems or equipment with genuine 'state of the art' ambitions. Indeed, marketing men have reduced the phrase to a laughable shadow of its true meaning. So it was as surprising as it was pleasant to encounter two such systems in the space of a month.

In the first instance, importer Sound Image had assembled a stellar combination of products to allow press and dealers to experience the whole lot in an appropriate system context. After all, how many people have the system on hand to simply slot a $20,000 power amp into? And more importantly, how much of a 'system' will result?

The core electronics were provided by the Boulder 2000 series; the 2000 dac, 2000 pre-amp and a 2000 power amp running in stereo, and good for 600 watts per channel. Speakers were the (almost manageable) JM Labs Utopias, which seemed almost dinky compared to their big brothers, the Grands. Cabling was provided by the hideously expensive Tara Labs 'The One' throughout. This sort of set-up clearly demands a top notch source, and Sound Image stepped outside their own portfolio to provide some. CD transport was the exotic air bearing Forsell, whilst the piece de resistance was provided by the record player; an air bearing, air suspended, vacuum disc clamping Rockport Sirius 11 LE 11. Cartridge was a Lyra Parnassus and the phono stage a Boulder Pro Phono.

Do the sums on this lot and you really do arrive at an "if you have to ask " figure. But two things made a promising impression as soon as I walked into the room. The first was the coherence of the products in the system(cables from a single company, and likewise for the electronics), the second was the extensive record collection. And I wasn't disappointed. As soon as we sat down to listen it was clear that this was a system in the true sense of the word. Despite the size and power of the amp, it was capable of surprising delicacy, whilst detail and focus were as impressive as you'd expect. But the really outstanding quality was the ability to hold everything perfectly stable in the big musical moments. You never ended up with the orchestra in your lap, or in an undignified heap between the speakers. And it managed to keep it together without resorting to the kind of iron grip that crushes the life out of music while robbing it of pace and timing. We left a lot later than planned!

My second close encounter came when Path Premier invited us to attend the launch of not one, but two new Mark Levinson Reference products, the 30.6 update for the processor, and the all new 32 pre-amp. This is unprecedented. Levinson take the term Reference very seriously indeed, and before they apply it to a product, they have to be confident that it redefines their performance and engineering expectations in its given role. As a Reference, it has to be both stable, and capable of use as a platform for future product

development. As an example, the No 30 Dac was launched in 1992, but the 30.6 upgrades constitute only the second major revision of the system architecture. This gives some idea of the consideration that went into the original design, and this in a field that is developing as quickly as digital data processing!

The 30.6 upgrades are intended to make the Reference Dac capable of processing any future digital data stream, in part by providing a reserve of unused DSP capacity sufficient for all foreseeable formats. This has necessitated a completely new digital section, which is retro-fitable to existing 30.5s. A flash memory makes future software upgrades swift and simple to install.

Some idea of the almost obsessive attention to detail that goes into a product like this can be gleaned from the hand trimmed nude Vishay resistors used to trim the output voltage from the converter chips. These are individually cut and

accurate to 0.0006%! These guys are serious. And so they should be. A brand new 30.6 weighs in at $16495, whilst upgrading your 30.5 will set you back $4895, including a new face plate.

But I have to admit, the product that really lit my candle was the No 32 pre-amp. Ten years in gestation, there's so much innovative thinking and engineering in this unit that it's difficult to know where to start. And any sort of comprehensive discussion will take pages, so I'll try a brief over view. The 32 is a two box design, but it eschews convention by placing the controls and their associated logic circuits in the same box as the power supply. Levinson have always believed that the power supply is the foundation on which any electronic component rests, and this one is an absolute work of art. Special care has been taken to isolate the power supplies from mains related problems, and by locating the control circuitry in the same box, the critical audio signal paths are totally isolated from all sources of extraneous noise. The precision resistor networks that set volume levels are another electronic wonder. Mechanical integrity is ensured by one piece aluminium chassis milled from solid billet. The circuit is fully balanced and dual mono, and considerable effort has gone into isolating the various inputs, all of which are user configurable and can be individually labelled. You also get a comprehensive range of interface ports to allow integration into complete Levinson systems as well as multi room applications.

The line stage costs $14500, but the thing that I find really exciting is the optional phono module. Physically separate mu-metal capsules are slid into the pre-amp chassis and firmly anchored. Each one offers two separate phono connections each of which can be individually configured for gain, resistive and capacitive loading. But the real beauty of the set up is that its integration into the overall system architecture means that you can set the channel balance of each input in 0.1dB steps, and all the adjustments can be made from the remote control. And the mono function on the pre-amp includes a left minus right option which is a major help in setting correct cartridge azimuth. In this day and age the provisional price of $2800 makes the phono stage an absolute bargain, albeit one with a close to 15K membership fee. Do I want one? Is the Pope small? Is Luxumbourg catholic? Bloody stupid question really. I want it, and I want it bad!

Sound quality of the complete Reference system, with 31.5 transport and 33 power amps playing through Revel Studio speakers was extremely engaging, even in the less than wonderful environment of a hotel room. I can't wait to hear these at home.

But what these two systems really represent is the fact that, for the well healed music lover, there's far more than one game in town. All these products enjoy excellent reputations and sales in their home markets, and yet, in the UK, they have tended to live in the shade of other brands which, locally at least, have achieved a higher profile in the press. Equipment like this clearly competes with those high profile imports that have tended to dominate the UK magazines. It is hard to be anything but impressed by these products, and they are already earning the wider audience they so obviously deserve.

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Hi-Fi '99, Frankfurt

by Roy Gregory

The middle of May is show time in Frankfurt, and most of the UK's heavy hitters have gathered at the Gravenbruch Kempinski, or its bar, at least. Buried in the middle of production for Issue 2, I can ill afford the time, but Hi-Fi '99 is the premier European show, and too important to miss. It's also huge, spreading across three hotels, which would turn a conventional show report into a sprawling mass which would stretch across a couple of issues, and most of it would be irrelevant anyway. instead, I'll confine myself to the highlights and trends.

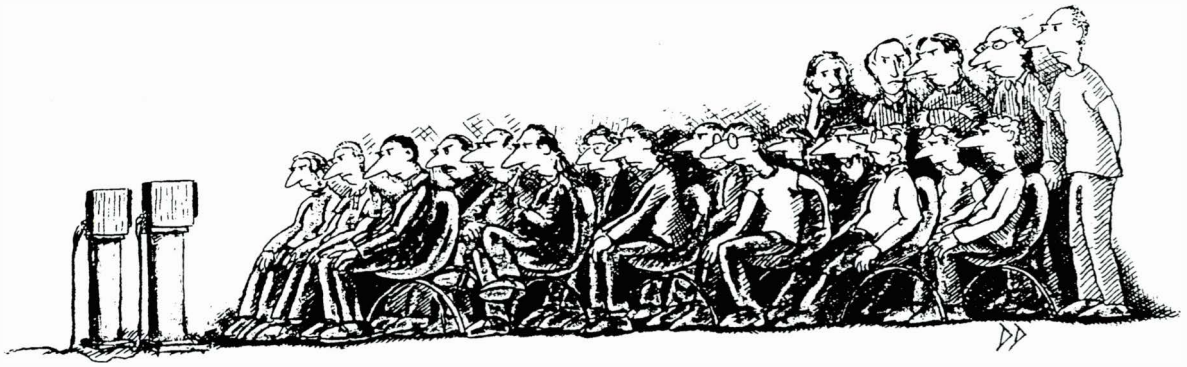
Not exactly news, more of a rumbling presence which dominates the horizon, the format war between DVD-A (24bit/192kHz) and SACD (Sony's bit stream equivalent to 24bit/200kHz) is finally reaching the public domain, with both formats being demonstrated. The problem is that you never quite know what you are listening too, in software terms, with more than a little up sampling muddying the waters. For what it,s worth, the Sony demonstration (using high end Sony amps and speakers) sounded significantly better than the various DVD-A demos, some of which used serious exotica in an attempt to get the best from the format.

Such demonstrations are fraught with problems, and side by side comparisons were of course impossible, but the Sony set up exhibited excellent depth, focus and dynamic range, making CD's played on the same set-up sound dull flat and lifeless (no change there then!). Sony were of course, bullish about the performance and prospects for SACD, and it looks increasingly as if the DVD-A camp's suggestion that the format was merely a spoiling tactic and attempt to raise the stakes within the DVD-A working group, is being exposed as nothing more than a fond hope. Certainly, Sony seem prepared to go the whole hog. I hope it doesn't mean we get stuck with 24bit/96 kHz (the DVD-V audio only spin-off) as neither of the higher sampling rate technologies can establish itself. The DAD (DVD-V) route scores on the grounds that it is piggy backed on to an existing, accepted format, and that it offers the backward compatibility with CD that is only otherwise available from SACD. Unfortunately, sound quality to date, whilst better than CD, certainly doesn't a) match the hype,or b) offer a serious challenge to analogue.

In fact, the most interesting demonstration of high sampling rate technology was being given by vinyl reissue specialists Speakers Corner. They have just released their Violinists box set, in association with DG. The three record set features the debut recordings for the company by Perlman, Millstein and Mutter. While cutting the 180g discs, senior engineer Willem Makkee from Universal Music took the opportunity to transfer the analogue master tapes onto a pair of Nagra 24bit/96 kHz tape machines, thus mimicking a 192 kHz sampling rate. The synchronised tapes were then played back through a professional 192 kHz capable DAC, which was also connected to a CD transport. An LP12, Ekos and Dynavector phono stage meant that the 192 kHz tapes could be compared directly to CD and 180g LP versions, all taken from the same master. Electronics were YBA Passion mono-blocks driving JM Labs Mini Utopias.

The results were extremely interesting, with the CD rating a poor third in comparison to the other two versions. The 192 kHz version was far more immediate and dynamic than the CD, with much greater musical integrity, but compared to the vinyl, it displayed a worrying opacity; a tendency for instruments to expand to fill the available acoustic space within the sound stage. The effect was rather like a three dimensional jig-saw puzzle, with no space between instruments, and no real ability to see beyond the front row of the orchestra. Likewise, the further back an instrument was placed on the stage, the harder it was to locate it at all precisely in space. I have to say that I found this homogeneous sound stage quite disturbing, but other listeners seemed divided down the middle as to the relative merits of the 192 kHz and vinyl versions.

Meanwhile, back to the Violinists box set. This is the second box that Speakers Corner have produced in association with Universal, and ▶



the packaging and presentation puts anything else from the many reissue houses to shame. This can only be described as sumptuous, and harks back to the special comemorative box that DG produced to celebrate there first American recording (a Ravel programme with Abbado and the Boston). This was only possible because of the considerable help that Speakers Corner received from the art and marketing departments at Universal, support that extended to the presence of senior personnel (including Willem Makkee) throughout the show. The sleeves are indistinguishable from the originals, and the outer "wallet" is the best I've seen, comparing with anything from vinyl's golden years. It's wonderfully refreshing to see a major label taking both vinyl and its own heritage so seriously. Long may it continue, and perhaps some other labels could be persuaded to follow suit.

This show also gave me my first opportunity to experience the legendary Manger drive unit in operation. As far as I am aware, Audio Physic are the only company to use the revolutionary, near full-range driver in a production loudspeaker, the £20000 Medea. But at this show, Manger were demonstrating their own MSS active studio monitor, and the sound was extremely natural, despite the confines of the hotel bedroom. Disc after disc was played, and time passed as I sat beguiled by the delicacy and beauty of the music. Certainly, the twenty years Herr Manger spent developing his driver was time well spent. I won't go into further detail here as this is a story that I definitely intend to follow up.

Another first for me was a Yamamura-Churchill system, running from their own modified transport and DAC. Their smallest speakers were driven by a new integrated amp, and positioned an almost incongruous distance apart, and the whole system dripped with Y-C accessories and cabling. This was the other system that held my attention, and I spent far longer than I should have enjoying the music. Robert Churchill was playing a variety of real jazz amongst other things, and the thirties Louis Armstrong cuts were a refreshing change from the sanitised "salon" jazz that dominated the show. Audiophiles only have themselves to blame all the time they continue to spend money on this dross! But back to the system. Whilst the limited bandwidth of the speakers took a little getting used to, the coherence and vivacity of the sound was certainly engaging. The more I listened, the more I liked it, and once again, this is a system to examine in far greater depth.

Frankfurt offers a rare opportunity to see, hear and touch those artefacts of audio sculpture, the Simon Yorke turntables, which this year included the new 'budget' model, the S9. A pared down and simplified version of the S7, the 9 is a two speed, user adjustable turntable, and comes complete with its own 12" arm. But the piece de resistance is the motor drive. This is sunk into a solid brick of aluminium, and out of the top stick the speed adjustment turrets, looking just like architect's models stolen from the Maginot line. With any of Simon Yorke's products, the sound quality becomes something of a secondary consideration, given the beauty of the turntable itself, but the sound in the room was to distributor Isenberg Audio's normal high standard, and once again, they played real music. The rest of the system included the Jan Alertz cartridge, Valeur Audio amps and speakers, and the fascinating Fadel Art cables. The smoke generator was an occasional participant, but certainly helped to thin the crowds when the room reached bursting point. Incidentally, this rarest of turntables is now available from Walrus Systems in London (0171-724-7224 www.walrus.co.uk), which means that the great British public can finally get to experience them in the flesh.

Different markets have their own obsessions, and in Germany you expect to see huge spherical horns jammed into hotel bedrooms, a host of high-mass turntables, and be swamped in immaculately finished miniature speakers. Mechanical isolation is another German fascination, and air isolation platforms are now finding their way under speakers. I was forearmed on the subject, by an hour long phone call from Max


ultimate

Townshend, whose inventive mind is moving in a similar direction. However, it was still something of a shock to come across a pair of 'barik-on-stands size speakers in the Fisch Audiotechnic room, which rocked gently in which ever direction you pushed them. Herr Fisch has a whole range of wobbly isolation platforms, all designed to support different weights, but it was his Fisch 5 loudspeaker that I found particularly fascinating. This is an active mini-monitor design with an air isolation system built into its base. The two great imponderables for a loudspeaker designer are the connection of his product to a power amp and the outside world. In the 5, Joachim Fisch has, in a single neat package, brought the whole problem under his own control, and initial listening suggests that it could be a valid approach.

A Cappella weighed in with a sixty kilo, three tier platform for the three motor ClearAudio Master Reference turntable, but the most interesting range of products came from Clearlight Audio, and involved a proprietary material called RDC. This is a matrix material employing grains of everything from sorbothane to lead and aluminium, held in a resin, and constituting a random, or 'chaotic', structure which is incapable of supporting dominant resonant behaviour. As a result, it transmits energy in a remarkably linear fashion, making it ideal for mechanical applications in hi-fi. As a resin based material, it can be precision moulded, which means that production, especially in quantity, can be cheap. Thorens, not exactly known for rampant tweakery or audio mystacism, are increasingly relying on RDC in critical energy paths, such as tonearm bases, and it can be applied to a whole host of both general and specific applications. I saw examples of everything from cones and feet, to support platforms and racks, to tonearm bases (including one for the ClearAudio Souther TQI), and even a replacement headshell for the SME 309 with an RDC cartridge platform mated (beautifully) to an SME bayonet.

However, the most impressive product on show was the 'Recovery' turntable. This employed a complex split plinth in which each slab was itself a constrained layer. The two elements of each constrained layer consist of an acrylic sheet which has been machined to accept a "nautilus" spiral of RDC, designed to inhibit standing waves. Two of these sheets are then bonded together in a mirror image arrangement to create a single slab. Two slabs constitute the plinth.

The platter is an acrylic construct, about 60mm thick, but machined out and lined with RDC, which rides on an aluminium sub-platter, again loaded with the magic ingredient. This is the technology that first surfaced in the Thorens Ambience turntable platter taken to its logical extreme. The motor is a free standing unit which drives via a Thorens belt, fed from an external power supply.

Price of the turntable, fitted with a Graham tonearm was 'about £5500', and sound quality was exceptionally clean, natural and open. Clearlight have an agreement with Loricraft, who plan to use RDC in the motor yoke assembly of their 301 and 401 turntables as well as applying it to armboards for the 501, but I don't know how far they've got with plans for distribution. With four cones costing around £40 or so in Germany, it could be a highly profitable sideline.

Further proof of analogue's well being came in the form of a new cartridge from ClearAudio. Designed to fit into the range below the existing (and highly regarded) Signature model, the Victory should sell for around the £1000 mark. It marks a departure from ClearAudio's established structure, a multi faceted aluminium body supporting the traditional hammerhead, and finally providing conventionally placed connecting pins and threaded screw holes. The aluminium body also makes the cartridge lighter, which combined with the other changes makes it compatible with a much wider range of arms. That, and its pricing right at the point that many audiophiles consider to be the maximum they can justify on a stylus, marks a new, more aggressive marketing strategy from ClearAudio. Incidentally, the Accurate has dropped in price to around the £2000 mark, so don't be surprised to see a new model arrive between it and the Insider.

The show also marked my first positive experience with NXT flat speaker technology. Various examples were on show, but sonically the most impressive came from ELAC. They were offering a brave demonst ration of a proof of concept 'picture panel' centre speaker, derived from their work on talking information panels. Played both on its own, and in the context of a five channel system, the panel proved to be rather impressive, especially as regards intelligability of speech and identification of distinct voices. Good to 100Hz, and driven by four of the new ELAC exciters, this is the nearest thing to hi-fi performance that I've heard from NXT. Sure, bass integration will always be a concern, but at least the technology is finally beginning to deliver some of its potential.

Overall, the abiding feel of the show was one of uncertainty. Time and again, manufacturers were showing existing models, citing concern over the outcome of the digital format debate. Some, like Helios, settled on a half way house by launching a DVD-V player to service the existing market, but by and large the specialist manufacturers are running scared. Until they settle down, you should too. There's life in the old CD yet.

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Sound And Vision Show, Vienna

by Dave Ayers

As the name suggests, 'Sound and Vision' is not a pure hi-fi show, but also includes a considerable amount of AV equipment. Austria being the home of so many great composers (who mentioned Falco?) pure music reproduction is still the main theme. The show is centred around dealers, and even most of the single manufacturer displays were tied to a particular shop. This year's Sound and Vision was not a particularly large show, Bristol was bigger, but there was a good range of high-end gear on offer, even if one demonstration was being given with the speakers out of phase.

The UK presence was led by Naim, demonstrating their new NBL speaker on the end of an all Naim active system. Naim have been carting this demo all round Europe for the last couple of months and getting a good reception. I found myself really enjoying the music in their room. The KEF Maidstones were also on show, although with little in the way of fanfare. The Linn dealer was demonstrating their Dolby Digital set up with a large projection screen and a Stomp DVD. Interesting.

Heco had a huge array of speakers on show, but none were operating while I was there. Avantgarde were demonstrating the now familiar Duo horns. Vinyl source was the Clearaudio turntable, but bizarrely, the CD source was a Philips Laser Disc player as transport, attached to an Audio Note DAC. Hmmm. Vienna Acoustics, who have recently arranged a UK distribution deal with Henley Design, were demonstrating their top of the range Mahler speakers. These large speakers sounded promising given the confines of their small and crowded demo room.

But for me, the most interesting part of the show was meeting Herr C37, Dieter Ennemoser. His C37 theory relates to good sound being produced by components that resonate with a pattern that matches the resonant frequencies of bone at body temperature. When you consider the internal workings of the human ear, this is not as crazy as it sounds, and the theory has actually been developed from research into the lacquers used on violin bodies, and their effect on sound. The results were in evidence through a number of different products. Firstly a lacquer that can be applied to most items in the reproduction chain, especially speakers. The theory has also been applied to the construction of components, such as amplifiers, with composite materials that will give the same C37 resonant pattern at higher operating temperatures. On show was his 300,000 schilling (approx £15 000) Archaeopteryx loudspeakers, which are fully C37 compliant. These 100db efficient 2-way cabinets use an 18 inch bass unit crossing over to a heavily modifed AMT tweeter at 3kHz (really!). These speakers had the most dynamic drum sound I have heard since I last listened to a pair of Klipschorns. Absolutely frightening! I want to hear more.

Also on show was a CD player built into two violin bodies, and a machine for running in violins. The other main C37 product was the new valve being manufactured by Vaic for their amplifiers. These have had their internal structure modified and shaped to produce the C37 signature. Vaic already use the C37 lacquer on their speaker cones, and there certainly seemed to be a buzz around. Expect to hear more about C37 in the near future.

The other notable thing about Sound and Vision that you definitely do not find in a UK hi-fi show, was the presence of AV software dealers selling NTSC Laserdiscs and Region One DVDs. Admittedly pricey, these discs could be bought without interference from any bully-boy tactics by Hollywood's private police force FACT. It's also possible to buy a Region Two version of The Fifth Element here, although the English soundtrack is only in Pro-logic. So much for the 'Common Market'.

Audio Plus To Distribute ALR/Jordan And Luxman

Roy Gregory

Audio Plus (no connection, I assure you), is a new distribution company set up by long time industry stalwart Steve Harris (ex Marantz, Tannoy and Mordant-Short, and definitely not the editor of HFN/RR), and Brian Welch, once sales manager at Epos.

Their first product range is ALR/Jordan loudspeakers, and therein lies a tale. ALR's owner and chief designer is Karl-Heinz Fink, whose main income is derived from designing products for major loudspeaker brands such as, you guessed it, Tannoy and Mordant-Short. This is where he and Steve Harris first met and worked together.

ALR/Jordan's own products grew from the desire to apply the lessons they'd learnt from designing other people's speakers, to products which weren't budget or technology constrained. That's not a recipe for blank cheque design budgets, but a policy to adopt the most appropriate solution to specific design problems.

A good example of this is the NOTE range. Starting at $1000 for the 3, a stand mounted two-way design, the floor standing 5 costs $1800, and the top of the range 7, $2500. All share the same ceramic coated 150mm aluminium driver (hence the Jordan in the name), soft dome tweeter and racetrack ABR. But the attention to detail is impressive, especially when you consider the small size of the company. That's where all that OEM design work and the contacts that go with it come in handy. Want your own, alloy terminal block? ALR have the contacts to get a really good price. Need a specialised racetrack chassis ABR to get deep controlled bass out of slim cabinets. ALR can organise a short production run that won't break the bank. And as well as the NOTES, they also produce the cheaper ENTRY range, starting at $250, and a rather clever set of surround speakers.

But it's not just about cost effective buying. Take another look at the ABR. It might be an approach that has been abandoned by the majority of European speaker manufacturers, but ALR have taken the concept a stage further by making the unit tunable. Screw on mass rings allow the user to optimise bass weight and extension for his particular listening room. This willingness to experiment rather than simply follow fashion is what sets the brand apart.

It's a characteristic which also defines Audio Plus. As well as ALR/Jordan, they also import the Lux SQ38 Signature valve amp. Not the rest of the range you understand, just the $3400, 30watt push-pull integrated valve amp. Which might seem like a strange decision until you see the amp in question. Truly no-nonsense, this champagne gold beauty is built as only the Japanese can. Reminiscent of the Wavacs and other oriental exotica, this sits comfortably alongside the likes of the CT7000 as Japanese hi-fi to long for.

Willing to break the mould and trust their own judgment, Audio Plus should prove to be a valuable addition to the increasingly crowded UK market. We hope to be covering some of their products soon, but in the meantime you can contact them on:

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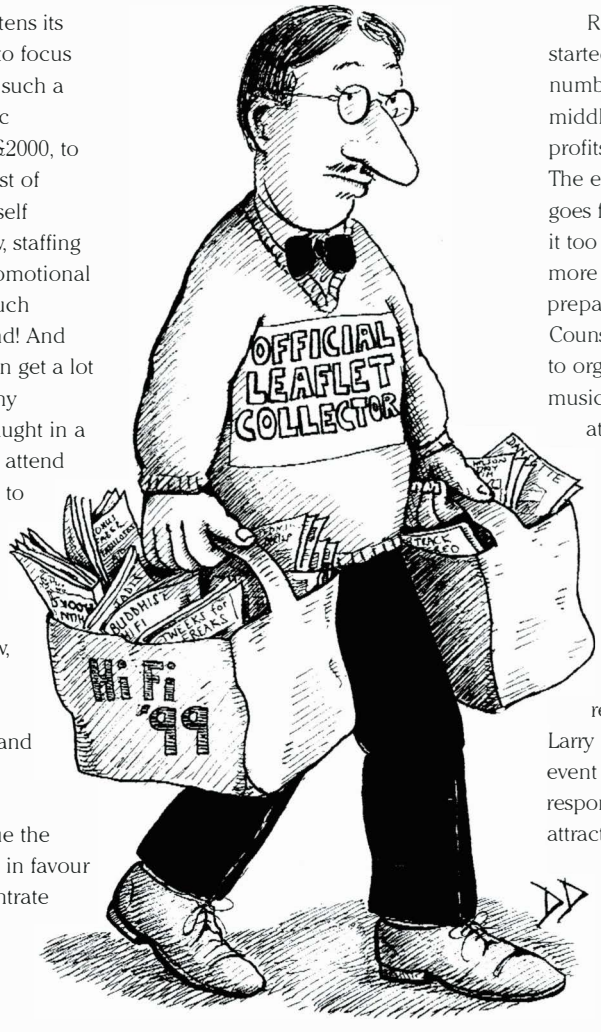
e-mail. steve@audioplus.co.uk

Retailers Move Toward Regional Shows

by Roy Gregory

The hi-fi show has always provided the traditional opportunity for the general public to rub shoulders (often literally) with designers and manufacturers. In the UK that has increasingly come to mean the annual London show at Penta / Ramada, but the times they are a changing. As the industry tightens its collective belt it has forced into focus the cost involved in attending such a high profile event. With a basic bedroom costing upwards of £2000, to which you need to add the cost of accommodation, getting yourself and your products to the show, staffing your exhibit and providing promotional literature, you don't expect much change out of four or five grand! And that's the bare minimum. It can get a lot more expensive than that. Many exhibitors feel that they are caught in a cleft stick. They can't afford to attend the show, but they can't afford to miss it either, because of the press and international contact that it provides. The end result is that many manufacturers attend the show, but it cripples their marketing budget for the rest of the year, meaning reduced advertising and no other shows.

This years move to the Hammersmith Novotel, a venue the industry originally abandoned in favour of Penta, has helped to concentrate the mind, and suddenly, rumblings of discontent are surfacing. After all, five grand buys a lot of advertising. What's more, if you are a small company it's outside your budget, and all the decent rooms are pre-booked anyway. And if you are a dealer who is far enough from London that your customer base doesn't travel to the show, you don't feel any benefit from your supplier's efforts. Increasingly, small distributors and distant enthusiasts are becoming marginalised by the over riding influence of the show, and its tendency to support the status quo.



Recently however, cracks have started to appear in the edifice, with a number of dealers cutting out the middleman (and his considerable profits) by organising their own events. The extremely successful Bristol show goes from strength to strength, although it too can be pricey. But we are seeing more and more independent dealers prepared to go it alone. The Audio Counsel shops from Manchester elected to organise their own cross between a musical evening and a mini show by attracting seven or eight manufacturers to a local hotel one Sunday. As well as the traditional demonstrations of the latest hardware, there was live music courtesy of Naim Label artist Antonio Forcione, system tuning tips, and the chance to buy audiophile records and CD's. Speaking to Larry from The Audio Counsel after the event he was enthusiastic about the response. As he pointed out, by attracting their most important suppliers, they gave their customers the opportunity to meet most of the manufacturers they'd seek out at a national show, that is,

the ones who make the kit they own. The bottom line cost was equivalent to a couple of musical evenings, which made it both cost effective and much more entertaining.

Walrus Systems may be the capital's youngest dealer, but it is also the most eclectic, combining a distinctly off-beat product listing with importing Morch tonearms and Dac's, Amazon turntables and the wonderful Final Music battery amplifiers. They celebrated their first anniversary by suspending normal operations for a week, instead dedicating their listening facilities to a different manufacturer each day, carrying over into the evening. Les, the more vocal of the two Walruses, was very positive about the results, especially when it came to meeting up with existing users of the equipment that they now represent, and introducing people to the ranges that they import. In terms of making new contacts and renewing old ones the week was a great success, with the public eager to meet designers and manufacturers, and enjoying the less stressful and hectic surroundings than those provided by a major show.

Belfast hi-fi dealer Kronos decided to go the whole hog and organise their own show. The event was held at the Stormont Hotel and facilities were excellent (with the odd exception, Pedro from Absolute Sounds ended up with a horribly bright room with which he persevered manfully). In all, around twenty rooms were taken with an interesting variety of equipment, covering everything from A/V through to high end analogue from Rockport Technology. The whole show was thoroughly professional and really well organised. David Cambell from Kronos puts its success down to keeping the rooms affordable, and leaving booking open to companies who don't necessarily deal with the shop. By making it an open forum you stand to attract the maximum number of both manufacturers and customers.

All three shops are bullish about the outcome of their efforts, and their customers are certainly enthusiastic. All plan to repeat and develop their events. Which can only be good news for hi-fi enthusiasts. Hopefully this foreshadows an increase in the regional events which the public so desperately want (which makes the collapse of this years Northern Hi-Fi Show amidst a puddle of industry apathy even more galling!). Who knows, perhaps we might begin to see a few shows which put the interests of the public ahead of international distributors. Yes, the industry needs a trade show, but it needs public support as well, and it's about time the pendulum swung back in that direction.

L'almandin Restaurant

by Roy Gregory

Cycling in the Pyrenees gives you a healthy appetite, and feeling virtuous after a long day in the saddle, we decided to treat ourselves to a meal at L'almandine Restaurant. And what a treat!

Set in the modern seaside L'ile de la Lagune hotel, just south of Perpignan, the beautiful interior is cool and extremely relaxed, an atmosphere which extends to the superb staff. The menu is extensive enough to provide a good choice without being baffling, but as with most French restaurants the best value comes from the set meals. High spots were an anchovy, aubergine and smoked salmon roulade, and a sensational gamba risotto. Victoria's filet de beouf fois gras simply melted in the mouth, surpassed only by my pigeon! The wine list was long but reasonably priced, and the advice was excellent.

We spent £80 but it was worth every penny, especially considering all the little gourmet extras that accompanied the meal. You could enjoy yourself for a lot less, but it really is worth going the whole hog. St Cyprien-Sud may be a little off the beaten track (!), but if you are in the area, L'almandin is well worth a special trip. We're definitely going back.

L'almandin Restaurant

Tel. (33)(0)468-210102
Fax. (33)(0)468-210628

Meet The Reviewers

Two more lambs to the slaughter... I mean additions to the reviewing team.

Andrew Hobbs

Independent Music Retailer

Hi-Fi Experience:

Ten years working as a store manager for a leading record store. Responsible for all mainstream stock and specialist imports.

System:

Meridian 206 CD player
Lentek Amplifier
Ruark Broadsword Speakers
Target Stands

Desert Island Discs:

Chris Isaak – Forever Blue
Bob Seger – The Distance
John Mellencamp – Lonesome Jubilee
Paul Brady – Trick or Treat
Steve Earle – The Hard Way
Tom Petty and The Heartbreakers – Self Titled
Michael McDermott – 620 West Surf
Lucinda Williams – Sweet Old World

Book:

Musichound Guide To Rock Music

Film:

One Flew Over The Cuckoo's Nest

Luxury:

Chicken Tikka Pathia from the Sunrise Balti House, Chandlers Ford. The Best!!

Indulgence:

Madhur Jaffrey as cook
Saeed Jaffrey as butler

Dave Ayers

Computer Consultant

Hi-Fi Experience:

I grew up with a Blüthner boudoir grand piano in the house. My initial introduction to music reproduction was via my father's system, and later a mono system of my own which he mostly built. In my twenties I was a sound and lighting engineer at the local Top Rank, mixing for the (extremely good) resident band. Trying to juggle the sound of five musicians who all want to be louder than the others into a cohesive whole is probably what gave me my love of systems that give a true sense of performance.

System:

Michell Orbe
SME V tonearm
ClearAudio Accurate
Michell Iso HR and Hera
Michell Argo and Hera
Four Michell Alecto Monoblocks
Trichord CD Transport
Trichord Pulsar One DAC with HDCD modification
Audio Vector 5 loudspeakers
Transparent Tonearm termination box
Audioplan Super X-Wire tonearm cable
Trichord Pulsewire Digital Interconnect
XLO Signature interconnects
Audioquest Speaker Cables
Supports from Sound Systems, Brightstar, and B&Q (paving slabs under the speakers)

Desert Island Discs:

Pawn Hearts - Van Der Graaf Generator
Patience - Peter Hammill
Shoot Out The Lights - Richard Thompson
Rising For The Moon - Fairport Convention
Lark's Tongues In Aspic - King Crimson
Post Orgasmic Chill - Skunk Anansie
Us - Peter Gabriel

Book:

High Fidelity - Nick Hornby

Film:

The Blues Brothers

Luxury:

A solar powered portable DVD and a library of films.

Indulgence:

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In a LEAGUE of their own

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outstanding quality

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Absolute Analogue

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you owe it

to yourself to hear

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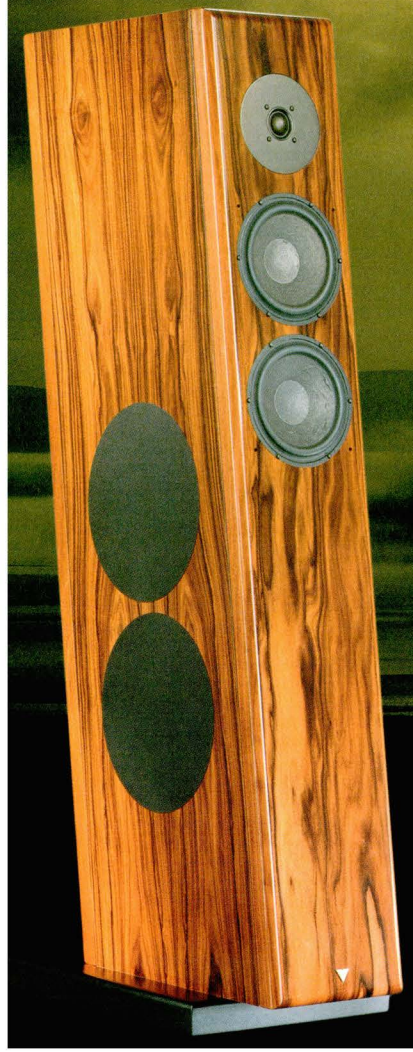
In the beginning there was darkness

Then God created Music and it was good



The new Classic series of turntables from Pro-ject
Composer series loudspeakers from Vienna Acoustics
Somehow the world seems a better place

Stunningly finished in piano lacquer and beautiful veneers
these Austrian creations are as pleasing to the eye as they are to the ear.
Classic turntables from £360, Composer loudspeakers from £650

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Power Corrupts?

by Roy Gregory

In the '80s, the hi-fi industry started a Lemming-like plunge down a blind alley of smaller and smaller speakers driven by larger and larger amps. But it wasn't just a question of size. The advent of metal drivers and low colouration design imperatives led to a whole range of speakers that weren't just small, they were almost impossible to drive. As terminal compression set in, musical dynamics went the same way as large speaker cabinets, and whilst it was genuinely astonishing just how much sound you could get out of a tiny box, it didn't have a lot to do with live music.

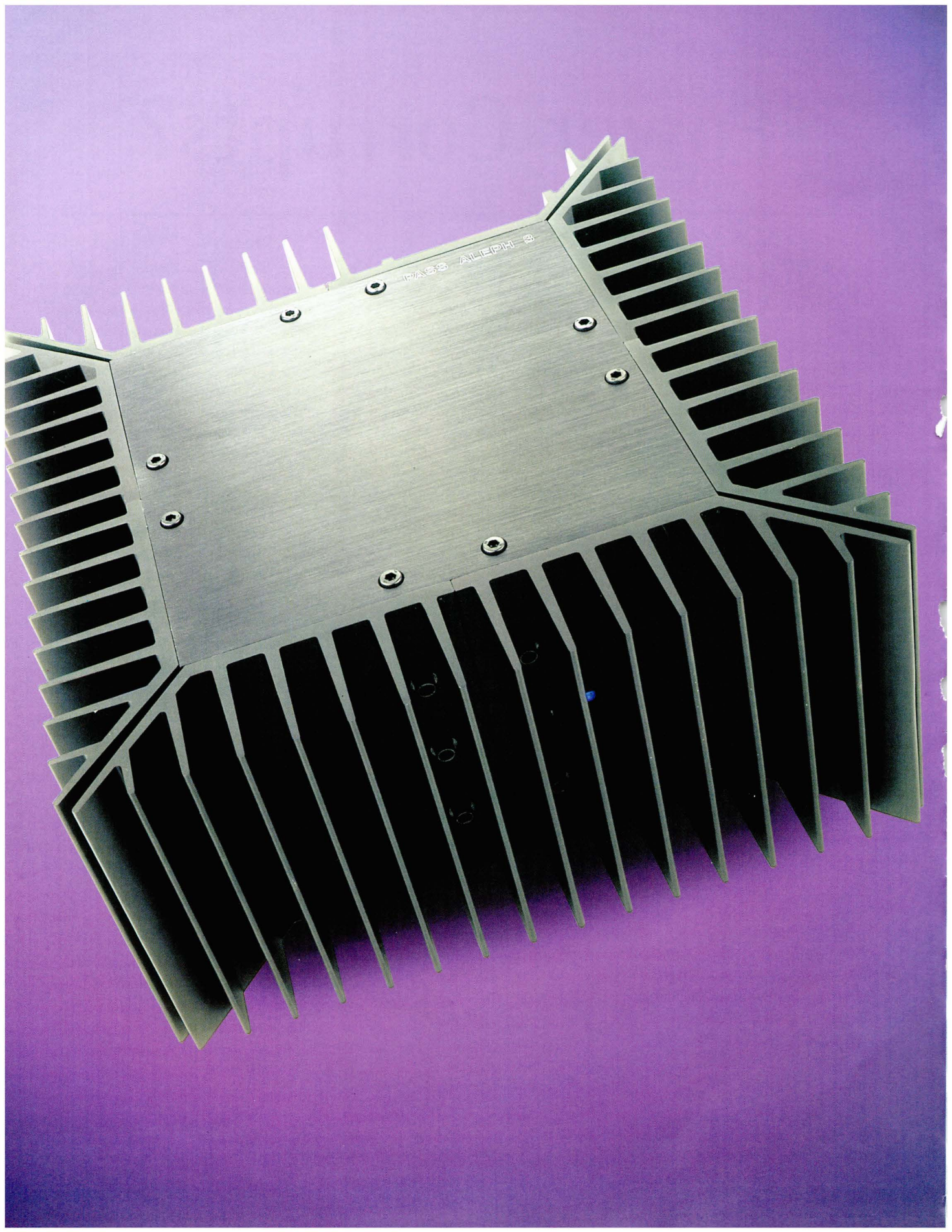
Even with the Lemmings in full flight (and some of them still haven't hit the ground) there were always the iconoclasts who bucked the trend. DNM launched a 35 watt amplifier in a plastic box entirely devoid of handles, while Audio Innovations belied their name by single handedly re-inventing the direct heated triode. And it was the latter that took hold. Soon even established valve giants like Audio Research and conrad-johnson were paying lip service to the triode 'ideal'. And with dwindling power output, triode driven audiophiles started a frenzied search for higher efficiency speakers. With old Lowthers starting to fetch silly prices, it was only a matter of time before the speaker manufacturers recognised a new band wagon, and the mean efficiency of conventional speakers has been climbing ever since, to its current average of around 90dB.

Whilst all this has been going on, the solid state world has remained aloof. Or at least it tried to. The problem is that with easier speaker loads, the bigger amps can no longer rely on excessive muscle to justify their prices. They have to be qualitatively better than their smaller brethren, and particularly given the emergence of bi-amping as a popular (and sensible) upgrade path, the gap between big and small has closed, and in many cases reversed.

All of which makes it an opportune moment to examine the claims of some of the smaller solid state amps on the market. Their supporters claim that their smaller power supplies and lower component count will lead to faster, clearer sound with a healthy slice of the vitality missing from so many of the behemoths that have dominated the press in recent years. Do they deliver, and is there a downside?

In order to find out, we've assembled a cross section of the market. The Pass Aleph 3 comes from a manufacturer who produces everything up to 1000 watt mono-blocks. As the baby in the range, how does it stack up with the specialist low-power crowd. It's also Class A and single ended, just to keep things interesting. The DNM combination represents the latest word from Denis Morecroft, perhaps the most vocal protagonist in the low-power / high efficiency camp, and incorporates a number of novel approaches. The Lavardin IT flies in the face of fashion by applying an incredibly complex circuit to its modest power output, using research into the electrical behaviour of the components themselves to off-set the disadvantages. And finally there's the Final, a hand built design from Japan which uses a circuit of almost impossible simplicity, and drives it with batteries.

From amongst this cast, we hope to find an answer to the question; can we finally dispense with the musical and monetary burden of the mega amps, or is the current trend for even more powerful designs more than just a marketing move?


PASS ALEPH 3

Pass Aleph 3 Power Amplifier

by Chris Binns

Not since the 1920's when push-pull amplifiers didn't exist has there been such a plethora of single-ended power amplifiers. So what's it all about? Don't ask me. Maybe ask Nelson Pass, the man behind the Aleph range of single ended-amplifiers. He would argue passionately not only for their existence but for their superiority to more everyday amplification.

As a prominent designer of the last twenty years, he has never been content with many of the widely accepted ways of doing things. In fact he belittles much of the wisdom of conventional amplifier design - and this is the man responsible for a considerable number of landmarks in the last twenty years - so not even his own work escapes criticism.

Most conventional amplifiers are push-pull. Without opening the can of worms that is the operation of these versus single ended, by and large single ended amplifiers can be made very simple and are usually extremely inefficient compared to their push-pull brethren. Simple. How simple do you want? How about two stages from input socket to speaker outputs while most conventional designs have between five and seven. Inefficient. Absolutely. In terms of mains power consumed versus audio output; they are. The Aleph 3 only manages 60 watts for a considerable 250 watts consumption and at two thousand pounds seems pretty extravagant. But read on...

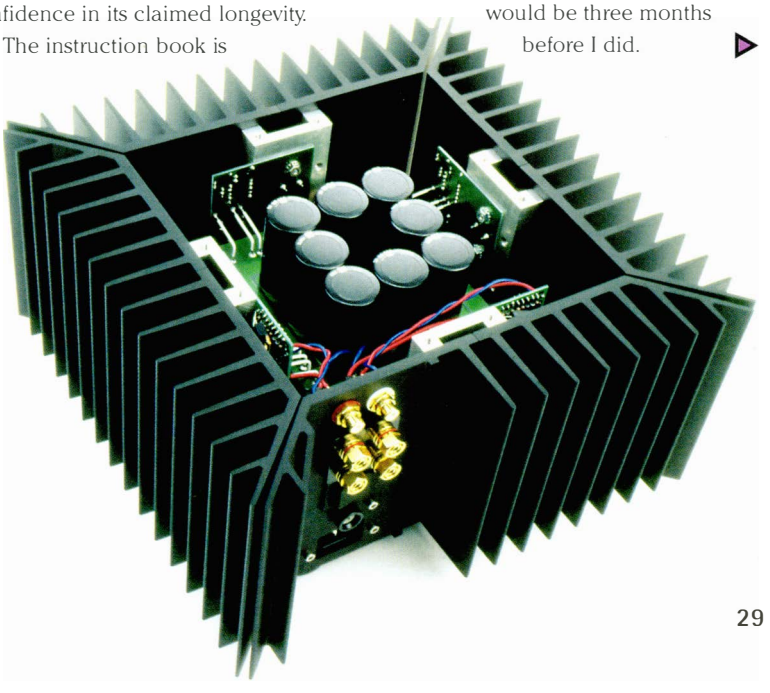
The Aleph 3 is a square box of 12 by 12 by 6 inches with lots of fins. In fact fins on all sides. It is also the baby of the range, and although I usually despise the word 'cute' it is applicable here. Personally I like the look of it, although remarks such as industrial, military, and fugly were used by some. Lets settle with functional. Being pure class A it has to dissipate nearly 200 watts of heat, so the heat sinking around the case is most certainly not cosmetic. Indeed, so essential is it to the operation of the amplifier that the space on the rear for the phono inputs, speaker binding posts and on/off switch is severely limited. Putting the mains switch below the socketry makes switching on and off quite frankly a painful and occasionally bloody operation. Likewise, large unwieldy loudspeaker cables are difficult to connect and as for tri-wiring, forget it.

Internally, the elegant construction echoes the simplicity of the design philosophy with a symmetrical layout of high quality components. It is beautifully put together giving confidence in its claimed longevity.

The instruction book is both entertaining and informative providing a good explanation as to why this amplifier is radically different from the norm. It is here that Nelson Pass expounds on the behaviour of sound travelling through air, the theory of single-ended operation, and how the two are connected.

This amplifier is unconditionally stable. You can connect, disconnect, short it out and generally fart about to your hearts content with the unit switched on without even a minor squeal of protest - something NEVER to be tried with other designs unless you're prepared to replace your speakers. Difficult and low impedance units (e.g. electrostatics) are easily handled as the output doubles to 60 watts into 4 (or lower) with no problems. I know, I tried.

My first encounter with the Aleph 3 was tantalisingly short. It was plonked unceremoniously into my usual system for half an hour before it was whisked away from under my nose (ears?). Bearing in mind that it needs at least one hour to warm up before use and that the rest of the system was definitely not orientated towards this small impostor, it performed miracles. It was enough time to convince me that there was something rather special going on. I wanted to hear more. It would be three months before I did.



But what about a Pre-Amp?

Along with the Aleph 3, Zentek supplied a matching Aleph P line stage, priced at £3895. With similar slab sided construction it's as close as you'll get to an aesthetic match for the 3, but as the review progressed, I began to question the efficacy of the combination. This has nothing to do with the sound of the Aleph P. On the contrary, it sounds rather fine. It's more to do with the price and facilities.

The P is a bare bones remote control line stage with just four inputs, and tape and main outputs. Controls consist of source select, left and right gain, and volume. As well as providing balance, the gain controls allow you to minimise the unit's noise performance by running the volume control wide open. However, there is a draw back. There is no buffer stage after the volume control, which means that output impedance will vary with the volume control's setting. This is not a problem unless your power amp has a low input mpedance, or unless you want to bi-amp, for which the low powered Aleph 3 seems an absolute natural!

Add to that the balanced in and outputs (which the Aleph 3 also lacks), and it begins to become clear that the P is rather more at home with the 3's bigger brothers, and that its price rather detracts from the phenomenal value offered by the baby of the range. The Aleph P is an excellent and musically unobtrusive line stage which throws a huge, stable sound stage. It's also ghostly quiet, and what weakness it has is best described as a slight tendency to a darkened, heavy balance. If you want fireworks and exaggeration look elsewhere. Unforced musicality? It's right on the money; but just a bit too much of it to partner the 3.

So...three months later...

It's that lull between Christmas and New Year, cold, wet, grey and generally pretty miserable. It might have been me or it might have been the equipment line up at the time but the door to the music room was firmly closed, actually it had been for some time. Even Michael Bolton's *Greatest Hits* - a present from a close friend - remained un-played. (I'm JOKING, you fools!). The gloom was dispelled by the arrival of not one but two Pass Labs boxes. The return of the Aleph 3. Oh, and a pre-amp (see the side bar or wherever). I installed the brand new Aleph 3 immediately. To be fair to it I gave this unit several days to run in while I struggled to curb my impatience.

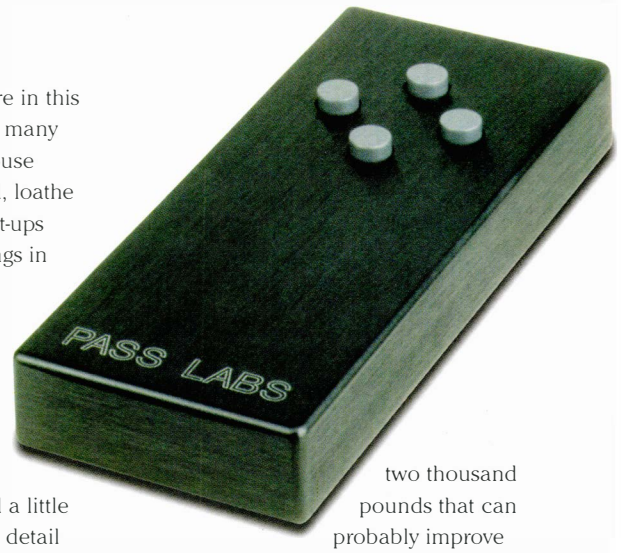
At last, after indulging in more traditional Christmas pastimes, I snuck in late one night for a listen. Five hours later I left the room with the floor entirely covered with record sleeves and CD cases, crawled into bed and in my mind started compiling the most superlative review. And so it continued. The Pass labs reproduced music in such a seductive fashion that I found it very difficult to start writing any objective notes. I kept thinking about what its designer had said regarding the connection between air and the operation of single ended designs, convinced he was onto something.

The Aleph 3 did not seem to favour any particular type of music or recording, in fact one of the nicest things about it was that it had me listening to music that I had previously had little time for. Jazz, traditional or modern has never really been my thing, I was content with it's influence on other types of music more familiar to me. However, I've started listening to Miles Davis, *Kind of Blue, Panthalassa (the remixes)* and thoroughly enjoying them. This little amplifier can pull you into exploring uncharted territories of your music collection. I found that recordings I had seldom played and dismissed as uninteresting were

suddenly worth listening to. Everything from Shostakovitch string quartets to Neil Young, even at his most unruly, proved irresistible.

To put this into context; the Pass was being run in a system that made no concessions to a small amplifier. It included the Primary monitors which are not an easy load: far from it in fact. Nor are they efficient. The sanity of using a 30 watt per channel amplifier with a speaker of 85dB efficiency in a large room is questionable. Particularly as I'm not averse to occasional high level listening. Yes, I could easily get the Pass to overload, but when it did it was with a degree of grace; no hardness or compression. More importantly you just don't need to turn it up. At modest levels the sound is complete and fulfilling with a wonderful depth of sound stage. There have been many occasions when this attribute could have helped me during recording sessions by avoiding demands to increase the monitor volume in an attempt to hear more detail in the recording. At times I would have given anything for an Aleph 3 in the monitoring system. Especially at one o'clock in the morning. Your head is throbbing and you want to go home but the guitarist from hell is standing behind you, disproving Darwin's theory of evolution just by standing on two legs, and shouting "turn it up - I can't hear my solo!".

My honeymoon period with the Pass lasted for nearly two months during which I was indulging myself musically and, here comes the cliché - 'Forgetting the equipment and listening to the music'. The trouble is, I'm reviewing for a magazine and it's part of my job to give the reader a clear and precise view of what this product is really like. I was somewhat shocked into action by the editor who brought round an amplifier which he wanted a second opinion on. This caused something of an upheaval in what was up until then a very cosy scenario. The Lavardin (reviewed elsewhere in this issue) contrasted the Pass in many ways. We also tried the in-house Primary valve amplifiers and, loathe that I am to admit it, both set-ups uncovered some shortcomings in the Aleph 3's performance.



If we have to do comparisons with other amplifiers (and I suppose we must) the Aleph does not perform in certain areas as well as some other audio exotica. It can tend to sound a little slow and the presentation of detail does not have that finely etched quality that glistens in the way, for example, that the Lavardin does nor has it the ultimate authority of a large muscle bound amplifier. Interestingly, horn loudspeakers exaggerated the slightly sluggish nature of the Pass. Where one would have thought that the high sensitivity and wide dynamics of these loudspeakers would compliment the amplifier, they were left wanting, although they did show the ability of the Pass labs to convey intricate musical dynamics.

Having tried different amplifiers in place of the Aleph 3, I reinstalled it with some trepidation, fearful that I was going to miss the qualities that the above mentioned amplifiers excelled in. I did. But after a short period of time its weaknesses just didn't seem important. I lit the fire, opened a bottle of wine and listened to music... and listened to music... and... listened to music.

So, here it is. The bottom line. There is something in the way that the Aleph 3 works that transcends hi-fi. If you want to spend your time playing with audio equipment, analysing this and that and generally being an all round sad case, don't buy this amplifier. Maybe become a hi-fi journalist. That aside I believe I have just paid Nelson Pass and the Aleph 3 the biggest compliment I can think of. Yes, there are more powerful amps for two thousand pounds that can probably improve on the 'sound' of the Pass labs - a little faster, a little more detail - and they probably present better value for money if all you want to do is satisfy your equipment lust. But the Aleph 3 has an ace up its sleeve. It leaves all of that behind, takes it out of the equation and lets you enjoy your music collection. After all, as we keep telling ourselves, that's what it's all about. Isn't it?

TECHNICAL SPECIFICATIONS

Aleph 3 Amplifier

Gain	20 dB
Frequency Response	>0.5 dB, 2Hz-100kHz
Power Output	30 Watts/ch 8 Ohms
	60 Watts/ch 4 Ohms
	60 Watts/ch 2 Ohms
Maximum Output	23 volts, 8 amps
Input Impedance	23 KOhm
Damping Factor	100
Dimensions (W x H x D)	300 x 150 x 300mm
Weight	17.25 Kg
Price	£1995

Distributor

Zentek Ltd
Tel. (44(0)1892-616383
Fax. (44)(0)1892-547004

Manufacturer;

Pass Laboratories
www.passlabs.com

DNM Interview; Denis Morecroft

by Roy Gregory

RG. Where I'd like to start is with the first power amp, and the technology that you've applied at each stage in the development process.

DM. We started off with the simplest circuit we could actually make work to an acceptable standard for what we wanted to achieve. So the PA1 was a very simple circuit, but we also wanted to incorporate the materials technology that we'd developed for the pre-amps, and try to intelligently apply our discoveries regarding the interaction of materials to the structure of the amp, and the circuit. Virtually everything around that is commercially available will be suffering adverse interactions with its casework and heatsinks, with the cans on the power transistors, and so on. Virtually every element of the amplifier is affected, and we wanted to try to solve those problems. We also wanted to apply full star earthing, and apply the principle that you can make an amplifier sound more powerful by making it smaller. Resolution will give you plenty of apparent power, so if you design for real current and voltage handling capabilities, but sacrifice resolution, you actually end up losing the sense of scale and power.

RG. By losing dynamic range?

DM. Yes. That was really the basis behind the PA1, what we tried to do. With PA2 we then tried to increase the power but keep the performance as good. That was a nearly impossible objective, and the only way we were able to move forward was to further improve the magnetic isolation of the heatsink and then apply a different way of getting the power, without using heavier components, and accept the fact that we couldn't necessarily supply the current to back-up the voltage. We did that by bridging the design, but it's not a switched bridge. It was designed from the ground up and can't be un-bridged. The appealing quality of this configuration is that if you deliberately run your two amplifier halves off of a single power supply, then one pulls while the other is pushing, so you largely cancel the Class A content of the power supply draw. It's seen as a steady state of operation. The advantages of that amplifier / power supply coupling was just enough, with the other improvements we'd made, to hold the amp to 70 watts without sacrificing resolution. But we couldn't back the full 70 watts up into a low impedance load. So you couldn't use two ohm speakers, or even four Ohm really.

RG. It strikes me that for any given speaker load, there is an optimum power amp configuration, defined in terms of load tolerance, current delivery etc. To what extent does the need to be universally applicable limit the performance of a power amp?

DM. Quite a lot, but it does depend on the assumptions you make about how much current and voltage you actually need. I'm always very conscious of the application we are designing the amplifier for. If there's a chance that you will use the amplifier for a PA application, that you will have a major party 25 or 50 days a year, then you'll need a heavier amplifier, but if you really can say that this is a domestic amplifier, and I'm interested in getting the best possible results under domestic conditions, then you can define those conditions pretty well, and push the design in a direction that will give much better results for long term listening.

RG. Obviously the Rehdeko speakers are far from an average load. To what extent are the new power amps, the PA3 and 3S, designed specifically to partner them?

DM. The Rehdekos happen to be my personal favourite, and the lower powered PA3S, with its fully regulated supply, is certainly intended to develop full dynamic range from that kind of very efficient speaker. However, in the field we are finding that you can use the 3S with some quite surprisingly awkward loudspeakers and still achieve excellent results and dynamic range, right up to the point where it finally clips. What it gives you is a sense of sparkle that you are always aware of; a life and immediacy. And that encompasses the whole range, especially the bass. It makes the bass breath, and gives it a lovely tactile quality. That is something that I think was really, really important in earlier times, but it's getting more and more lost in the mists.

RG. We were talking earlier about ▶

the relative efficiency of a musical instrument, compared to the average speaker system. It seems to me that the first thing that you lose in most hi-fi systems is that sense of direct vibrational energy. They cushion, they smooth, they round and they slow so that you lose that sense of vibrance, of direct impact by energy.

DM. Particularly as regards low frequency reproduction, I don't think you can do it the way most speakers do, and get realistic reproduction. There are several reasons, some acoustic and some involving the amplifier. If we start with acoustics modern speakers get their extension by resting everything on a resonance. The problem with a resonance is that it never arrives quick enough. It takes time to build up. So 99% of speakers on the market are slow in the bass. When the bass note should arrive, you are still waiting for it to build up. By the time it arrives its lost its shape and the result is that weighty wallowy sort of bass that is all too familiar.

Conventional wisdom is that the driving amplifier should control the speaker, accelerating it, but also providing a braking force, and this is complete nonsense. It's simply not practical because there's a wacking great length of cable between the two. What people forget about amplifiers is that they are not linear devices. In reality, they are digital devices, handling an analogue signal and correcting it about one and a half million times a second.

RG. Assuming it uses feedback.

DM. Yes, but there are very few totally feedback free designs. They nearly all use some form of local feedback, even if there's no global feedback. So what an amplifier is doing is constantly comparing inputs and outputs and applying correction every time that it sees an error. The problem is that the correction frequency is so high that there's no way it can get down the cable. It probably can't even reach the output terminals of the amplifier. So the correction circuit starts to see reflections of its own signals, and ends up trying to correct in both directions! Factor in the back emf of a few drive units and you begin to see the nature of the problem.

RG. We've talked a lot about efficient speakers. Can you put a number on that?

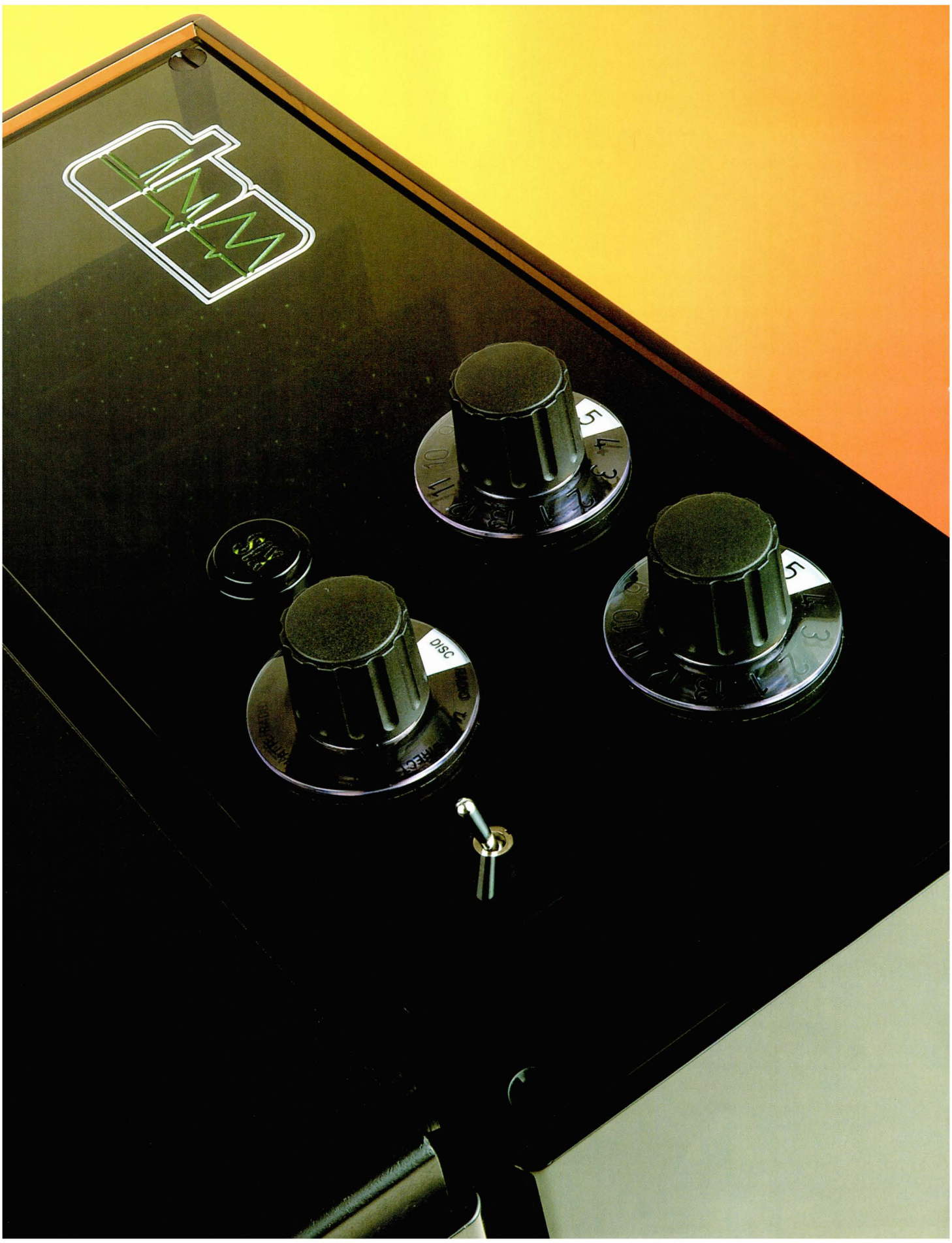
DM. I think it is vital for a speaker to be able to stop on its own, without asking the amplifiers' permission. You get that from about 96 dB.

RG. Aside from the regulated power supply, what separates the 3S from your other amps?

DM. All the 3 series amplifiers use our three dimensional circuitry, which is quite important as it enables you to create exactly the layout that you want. This allows us to optimise the magnetic interaction within the circuit, actually making it resemble something far simpler, like a cable. That is just one example of the way in which we are concerned about the possible energy ports into the amplifier. Each port is a possible reflector, whether it's the inputs, the outputs, the air around the circuit boards or the magnetic energy generated by the circuit itself.

RG. One final question. Is it easier to build efficiency into a speaker than power into an amplifier?

DM. Yes. Because if you try to do it the other way round you end up with two major problems. Firstly you have the problem of making an amplifier that sounds good, but you also face the problem of compression caused by heating effects in the speaker. Walk round this (Frankfurt) show and you'll see some fantastic technology. There's one amp that must have taken ten people to lift. That guy's really got it sown up, if only this were a PA show! The roadies might find it a bit heavy, but otherwise…. In a domestic situation it's just going to make matters worse. And we're already in deep shit because we haven't been doing our jobs properly. We're no longer convincing the public because our systems don't perform well enough. We have better technical performance than we used to. It's just that the music got lost in the translation.


DISC

DNM 3C Six And PA3S Power Amplifier

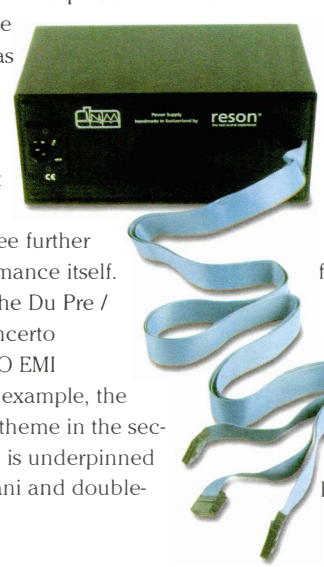
by Roy Gregory

The DNM electronics have always been about the orderly resolution of ever finer musical detail, but they've avoided ever straying into the realms of sterility. On the contrary, designer Denis Morecroft has been constantly aware of the inescapable truth that musical information is an expression of energy, and that the job of an amplifier is to pass a signal without disturbing the arrangement or nature of the individual energy 'parcels'. Thus it's not really surprising that the DNM amplifiers have put timing and transparency first when it comes to performance.

Right from the start, DNM preamplifiers laid bare the dynamic and rhythmic structure of music in a way that few if any of their contemporaries could match. But as they evolved, and the first power amp arrived, the search for increasing levels of transparency, and in particular the elimination of the blurred thickening associated with aluminium casework, disturbed the overall balance of the sound, bringing a thinness and lack of weight. In a world inhabited by wobbly waisted musical behemoths, this was actually a breath of fresh air, and careful system building could produce remarkable results. For a long time I used two of the original PA1 amps (30 W/ch) to bi-amp a pair of Apogee Calipers. This unlikely combination never failed to surprise visitors, as the speed and precision of the power amps woke up the lazy but incredibly pure sounding ribbons.

Ever since the first plastic cased models arrived, the development of the DNM electronics has been a search for realistic harmonic riches without compromising the outstanding transparency. And in the same way that DNM were the first company to question the accepted materials used for casework, Denis Morecroft has looked for answers in the internal structure of both the amplifiers and the components they're built from. The latest step along that road is the PA3S power amp, which introduces a fully regulated supply and T-network capacitors (explained in the side-bar).

Listening to the 3C Six / PA3S combination, transparency is still the key to their performance, but it is a different kind of transparency to the overt and slightly artificial, etched clarity of earlier models. These amplifiers offer real insight into the technique of the players, and the generation of the energy that makes up the music. What I hear here is a combination of musical vibrance and harmonic weight which fills out the notes themselves, the scale of the music, and the presence of the soundstage. The 'ultra-clarity' has been replaced by something more solid and substantial, but at the same time you can see further into the performance itself.



If we take the Du Pre / Elgar Cello Concerto (Barbirolli / LSO EMI ASD655) as an example, the plaintive Cello theme in the second movement is underpinned by subtle timpani and double-bass punctuation. The DNM's clearly separate the different instruments. Not only can you identify them by position, but by tone and texture. The timp beats have a different shape, and you can hear both the skin and kettle of the drum in stark contrast to the drawn notes of the basses. And when the percussionist progresses to little three note flurries, each beat is kept distinct, despite the speed with which they follow one another. But the most important thing to consider is the level at which this musical activity is happening. It is, quite literally, behind the soloist and the bulk of the orchestra. We are talking subtle background shadings here, but the DNM's preserve them intact and in place, so that whilst they might pass unnoticed (or at best unidentified) on the majority of systems, they are there , doing their job, which is musically important to the pathos of the piece. This level of bass definition is outstanding. To find it in an amplifier which also retains the music's life and tension is rare indeed.

And DNM's don't just excel in the bass. That resolution and texture extend across the whole musical spectrum. Du Pre's emphatic bowing is full of vigour and passion. Ricci's fiddle pyrotechnics (Paganiniana Water Lily Acoustics WLA-WS-06) are full of the bite of bow on string, with a vivid sense of the attack in each stroke. The dynamic shading of the Piano accompaniment, and its ▶

The Technical Bits

The 3C Six and PA3S are built in DNM's familiar minimalist perspex cases, and offer the bare minimum of facilities. The pre-amp uses split volume controls, and whilst these are anathema to some people, in practice they are easy and extremely precise to use. Existing users will be relieved to hear that individual inputs can now be trimmed for gain, preventing speaker wrecking disasters when switching from phono to CD! The source selector switches both signal and earth, preventing dirty grounds from interfering with the sound. Apart from that you get a mute switch which lights when you engage it, and tape monitoring which can also defeat the tape out. This means that the tape out can be used to drive a second system or headphone amplifier if required.

All connections are via five pin din socketry, and the main outputs can be configured to drive balanced amplifiers if necessary. You only get four inputs including phono, which comes with a standard sensitivity of 0.7mV. I think this is pretty optimistic, and purchasers should be sure to specify an appropriate value. The load impedance is fixed at 1kOhm. You can get two extra line inputs as optional extras.

The PA3S is a stereo amplifier offering 23 watts/ch. Whilst it is surprisingly load tolerant, it is best used with speakers of 90dB or greater efficiency. Compared to the cheaper (and more powerful) PA3, it employs a fully regulated supply and the new T-network capacitors. These differ from normal caps in having four terminals, an input and output for each connection, which allows the designer to control the current path on the capacitor's plates. This helps prevent the capacitor presenting unwanted resistive and inductive loads to the current, making it act more like its pure electrical model. The new caps also incorporate DNM's slit foil technology.

Internally, the amplifier is built on separate, layered boards, to allow optimum positioning of the signal circuitry despite the increased complexity of the regulated power supply. Inputs are via five pin din, and three sets of speaker connections are provided, all using 2mm plugs spaced to match the DNM speaker cables.

The DNM amps are expensive. The pre-amps start at £2550 with the Primus, whilst a Twin costs £3800. The PA3 power amp is £2500. And you don't get much for your money. The units are lightweight and contain a bare minimum of components. But it is important to realise that this minimalism and insistence on physically small parts is an essential element of the design philosophy, and a major contributor to the overall sound. And whilst the amps are pricey, the associated cables, mains lead and preferred lightweight supports are not. With other brands these can be a major expense. And DNM provide an upgrade path, both within the range, and by trading in earlier units. But at the end of the day, these will always be products you buy to impress yourself rather than your friends.

changes of tempo are beautifully reproduced. The Steinway concert grand is sonorous and weighty without ever plodding or slowing the pace. But it is the agility and sure footed stability of the flying fiddle notes that catches the ear. The instrument is stable in space as the notes pour forth, not scattered in height or width the way so many systems suffer. The tumbling notes are distinct, but the musical strand is clear to hear. Ricci descends arpeggios like a sailor sliding down a ladder. Very few amps can keep up, and most run the notes together. Not the DNM's.

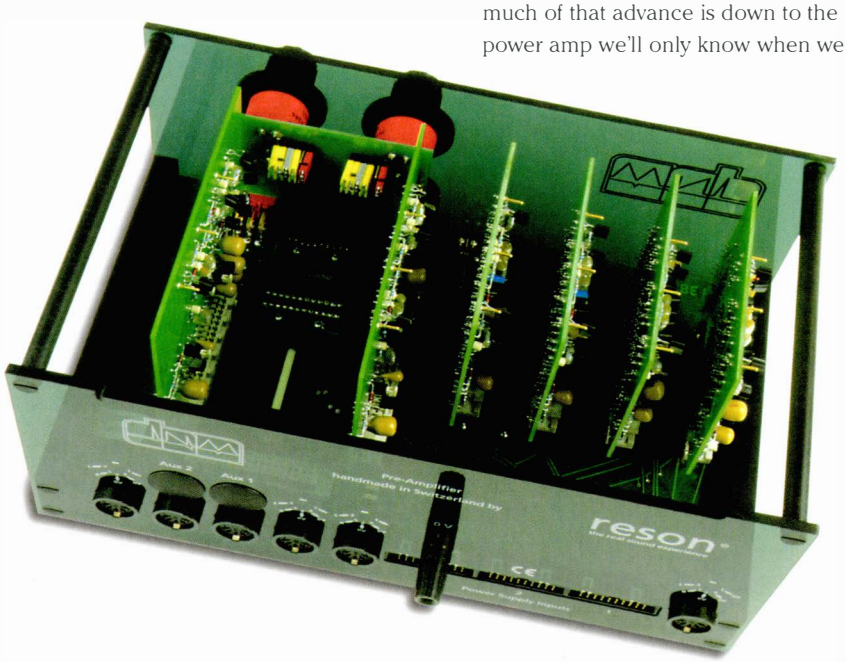
Likewise, they effortlessly unravel Shawn Colvin's slurred vocals at the start of Shotgun down the avalanche (*Steady On* CBS466142-1), underpinning the fragile guitars with a trip-hammer electronic kick drum which just drives the song along. And the twinkling sprays of notes that flood from Trevor Pinnock's Harpsichord in the Leigh *Concertino* (Lyrita SRCS 126) blossom within the strict supporting structure provided by the LPO. It's not so much a case of order out of chaos, but of preventing the slide down that slippery slope in the first place. The amps don't impose a structure of their own, they just make the most of the inherent patterns that separate music from noise. With the more structured musical forms, the sense and purpose of the piece become far more apparent. The Martzy *Kreutzer* (Coup

d'Archet 003) is a musical tour de force, the DNM's revealing the power and purpose in her playing, and the perfect musical balance between her violin and Antonietti's piano. This ability to preserve both the life in the playing and the architecture of the piece as a whole makes 'difficult' pieces far more accessible.

Getting back to where I started, with the question of technique, or the musician's input, if you like, let's use a more popular example. Buddy Holly had one of the most distinctive voices in pop. Take a familiar track like Everyday (*Buddy Holly* MCA-11161 180g) with its simple pattering percussion and celeste backing. The DNM keeps that backing going, revealing the subtle patterning and variation in the playing. At the same time, you can really hear how hard Holly is working on his vocals. That distinctive delivery is no accident of nature.

Shortcomings? The thinness hasn't been banished completely, bringing a slightly piping quality to Shawn Colvin's voice for example, and occasionally confusing instruments within family groups (violins and violas, clarinet and the upper range of the oboe). This is all the more surprising when set against the otherwise excellent separation offered by the amps. And whilst I haven't dwelt on the louder end of the musical spectrum, rest assured that the PA3S delivers with a tremendous sense of power and solidity, all those elements that go to create a convincing crescendo. These amps will rock and roll when you ask them to. It's just that even in the midst of a musical maelstrom, they still sort the elements, and fill it with individual textures. This can lead to a loss of that satisfying sense of coherence and oneness that many listeners love. I'm sure that DNM would point to the congestion that so often binds that 'whole', but ultimately, it's down to the listener to choose his compromises.

The 3C Six and PA3S constitute a major step forward for DNM. How much of that advance is down to the power amp we'll only know when we get a fully T-networked pre-amp to go with it. That's in the pipe line, but don't hold your breath. In the meantime, the DNM amps are fussy, eclectic and off-beat. Resolutely hair-shirt, two channel, and devoid of any convenience features at all, they are expensive and in terms of material content, sadly lacking. They are also beautifully made precision amplifiers, rather than male jewellery or foundation stones for your ego. They should be measured on the scales of musical satisfaction, and in that realm they're one approach to the state of the art.



TECHNICAL SPECIFICATIONS

DNM 3C Six Pre-Amplifier

Inputs	3 line + phono
Phono Sensitivity	MC - 0.7mV
	MM - 5mV
Resistive Loading	MC – 1kOhm
Input Sensitivity (Line)	<150 mV
Input Impedance (Line)	5.6 – 47kOhms
Max Output Level	±19V
Output Impedance	75 Ohms
Dimensions (h,w,d)	Two Boxes, each
	130 X 270 X 163mm
Price	£4950

DNM PA3S

Power Output	23 Watts/ch (8Ohms)
Dimensions (h,w,d)	Amp 130 X 270 X
	163mm
	PSU 70 X 235 X
	125mm
Price	£3750

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Final Music 5 Line-Stage and Music 6 Power-Amp

by Roy Gregory

The designer of a truly eclectic, yet world class, product once told me that he spent five years designing it, but made all his real progress in the last nine months - when he stopped cherry picking other people's ideas. In a world increasingly filled with me-too identi-kit designs of dubious merit, one thing I can guarantee is that Final haven't copied anyone! I can't remember a single product which has been so unashamedly different, and flown so resolutely in the face of fashion. In fact, the Final amplifiers are so different that it would be easy to dismiss them as downright weird.

For a start, the units themselves are tiny, and devoid of fancy casework, expensively machined, tactile knobs or remote control. They're solid state but boast all of ten watts a side, the kind of output power more commonly associated with single-ended triodes. There's a grand total of three line level inputs and a single set of outputs. Tape loop? No. Multiple binding posts for easy bi-wiring? No. Balanced connection? Now you're having a laugh! Oh, and they run off torch batteries. No lead-acid rechargeables. No Duracells. Just good old-fashioned dry cells like the ones that used to rot in my bike lights before I could drive. And not an IEC socket in sight.

Having told you what they're not, I guess it's time to spill the beans on what they are. The Final amps are an ultra straight line, thoroughly thought through solution to getting the best possible sound out of high efficiency speakers (which Final also happen to make). The units are hard wired, and offer the bare minimum of facilities. This is not the problem that it might seem, as anybody who has taken the trouble to seek out and accommodate high efficiency speakers is going to be a purist anyway. The circuits are based on op-amps, which keeps the wiring manageable and the number of (ultra high quality) passive parts to a minimum. Besides the three inputs and the battery level meter the line-stage offers a pair of output level controls, vital to match system gain to speakers that might vary from 95dB to 110! They also provide a balance facility, which again comes into its own when your speakers are going to make the most of any imbalance.

On the power-amp, and a solid-state first as far as I'm aware, is a control to vary the unit's damping factor. Again, this comes into its own as speaker efficiency rises, particularly with horn speakers whose mechanically damped low frequencies don't need any help from the amp. Other than that it's in, out and mute.

Now, battery powered pre-amps aren't that rare. They may not be common, but there are always a few around. What sets the Final apart is its battery driven power amp, and the fact that the designer rejects rechargeable or long life batteries in favour of low-tech dry cells. This may not seem much of a deal until you realise just how many batteries we're talking about. Contained in separate 'battery boxes', the pre-amp is driven by 28 AA's, while the power-amp takes 36 C size cells. Which is about £30 worth when replacement time comes round. How soon that is depends on how much you use the amps, how efficient your speakers are, what sort of load they present, and how loud you play them. Meters on the amps tell you when the bad news is due, but with a sensible speaker (95dB minimum and an easy load) a set of cells should last between two and three months.

Not being sensible at all, the first thing I did was stick the amps into the existing system, just to check that everything was okay. This involved the small but perfectly formed Ars Acoustica Diva speakers - 90 dB if we're being generous, and a 5ohm load. As far as the Finals go, this should be grounds for instant divorce, and I only meant to make sure they'd arrived intact. But I wasn't ready for the results. Maximum level wasn't up to much, but the Divas are designed to be convincing when you play them quietly. They are also really well damped. With the power-amp's

damping control a notch off minimum, the results were absolutely magical. We ended up listening to the combination for the entire afternoon and evening, which turned out to be both a fascinating and salutary experience. Reference to the sagging battery level meters showed the cost of such ill advised indulgence.

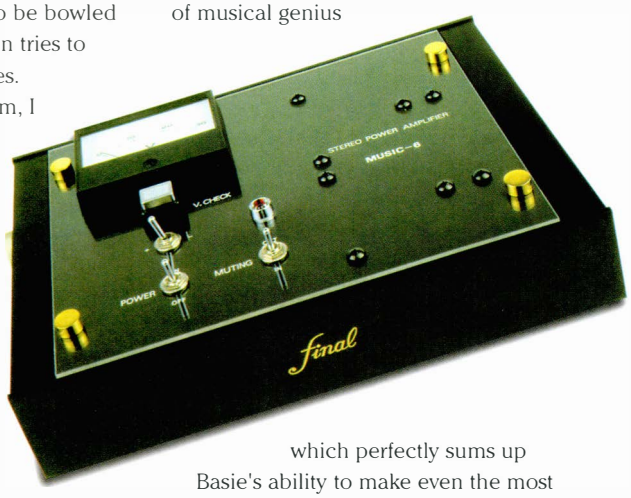
Changing to the altogether more appropriate Living Voice Auditorium Avatar (an upgraded version of the standard Auditorium with better drivers, a better plinth system, and an extra 2 dB of efficiency) confirmed my first impressions, without the dramatic drain on the available voltage. These little amplifiers are very special indeed. That first afternoon I simply played one album after another, and the qualities that kept me listening became even more apparent with more efficient speakers.

I suppose I'm going to have to break down the performance in normal hi-fi fashion, but before I do I just want to try and communicate some of the natural, seamless beauty of music when it's played on these amps. It all suddenly makes so much sense, a coherent whole that contains not just the notes, but the musicians' intent. Notes are placed and shaped so precisely and against such a silent background that the life and thrust of the music takes on a new power, the acoustic energy a natural result of the performers' actions. The Finals sound less like a hi-fi system than anything I've used for a long, long time. Does that make them sound more like real life? I wish it were that simple.

The fact is , that the Final amplifiers eliminate certain facets of the system's performance that we've come to identify as 'hi-fi' as opposed to 'life'. It's almost as if all hi-fi systems carry a fingerprint which the brain instantly recognises. Devoid of the evils of mains power, the Finals carry an entirely different signature. Suddenly, we no longer recognise the labels that categorise what we are hearing. It no longer fits the pigeon hole. It still doesn't sound real, but the absence of familiar flaws confuses the critical faculties. Is it a case of different rather than better? I don't think so. Put them in the right system and it could easily be a case of different and better. But either way, be prepared to be bowled over while your poor brain tries to adjust to a new set of rules.

Having lived with them, I think the Final's advantages lie in three specific and inter-related areas. The real clue is to be found in the amplifiers' independence of absolute level. You start by trying to play them at 'normal' levels, but you soon start turning them down. And unlike most amps, your ear adapts almost immediately to the new level. Change it between records and an unsuspecting listener can miss it altogether! Which suggests to me an extremely well developed and coherent dynamic range coupled to an incredibly low noise floor. Indeed, even at low levels, dynamics can startle, and music has an incredible sense of vitality.

The amazing dynamics extend to the sense of timing. But I'm talking about something much more sophisticated than the 'does it make your toes tap?' school of metronomic rhythmic 'integrity'. The Final's make your toes tap, but they make sense of even the most convoluted rhythmic relationships, allowing musicians to bend and stretch their playing within easily discernible rhythmic boundaries. On all but the most articulate amps, the Count's piano intro to 'Beaver Junction' (*Farmers Market Barbeque* Analogue Productions APJ 023) sounds clumsy, with disjointed notes tripping over each other. The Final's make perfect sense of it, revealing it as a masterpiece of sustained and restrained notes, offset against carefully weighted chords, the whole thing tied by a loosely held but perfectly paced tempo. They transformed a scattering of unconnected notes into a little moment of musical genius



which perfectly sums up Basie's ability to make even the most complex music seem easy.

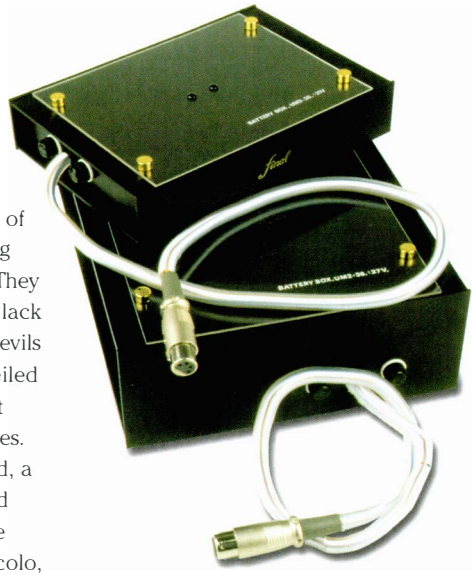
And they don't just do the delicacy thing either. Pile driver rhythm sections like the one that propels Lloyd Cole's 'Forest Fire' (*Rattlesnakes*, Polydor LCLP1) come across with thunderous intent. You want searing guitars, you got 'em. And full orchestral crescendos have a weight, solidity and complexity that is exhilarating.

At the other end of the scale, harmonics and musical textures survive beautifully intact, giving voices in particular, an instantly recognisable and wonderfully communicative quality. On a disc like the DCC *Ella Fitzgerald Sings The Cole Porter Songbook* there are so many tracks that often you find yourself skipping through to your favourites. With

the Final's you listen straight through, as each song reveals Ella's amazing tone, control and phrasing.

The Final amplifiers are devoid of the grain, noise and tonal bleaching that afflicts almost all other amps. They avoid the dynamic clumsiness and lack of rhythmic sophistication that bedevils large solid-state designs, and the veiled softness and lack of coherence that typifies so many single ended triodes. They are, in every sense of the word, a revelation. Their musical clarity, and the ease with which you can isolate instruments, from deep bass to piccolo, makes listening to hi-fi a far more rewarding experience. They demonstrate conclusively why the mains supply (and its failings) is fast rising to the top of so many peoples priorities.

But against these stellar accomplishments must be balanced the extreme



limitations placed on accompanying speakers, the cost of running the amps, and their own particular character. Let's start with the money. £30 every couple of months is a fairly hefty dent, but bear in mind that other amps have costs as well, albeit not quite as obvious. Class A behemoths gobble electricity like my nephews at a Pizza Hut ice cream factory, and at about the same cost. And the price of replacement tubes is spiralling ever higher, with high power output triodes well into three figures.

And remember, for the performance on offer, the Final's are an absolute bargain. The money you save by not buying those 300B monoblocks will buy a lot of batteries.

Which brings us to the question of speaker matching and sonic shortcomings. Final have designed these amps to a narrow and clearly defined brief, and you have to respect those limitations. The speakers I had available were all at the lower edge of acceptability in terms of efficiency and load. The sound was stunning, but it lacked immediacy. The slightly distant perspective was not unpleasant, and acoustic recordings had a beautifully floated sense of space and atmosphere, but soundstage boundaries were indistinct, and you never sat in the same acoustic space as the musicians. A little like having balcony seats at a concert. For Bruno Walter's Brahms 4 (Classic MS6113) that's absolutely wonderful. For solo piano or a string quartet it tends to rob the music of bite.

This could well be down to the speaker's low(!) sensitivity, and I'd love to hear these amps on something really efficient, like the Avant Garde Trios or the Living Voice Tone Scouts. Until that happens, final judgements must wait. In the meantime, you should try to hear these amps. But be warned, whilst they are not that expensive, matching speakers might be a different matter. The Finals could be a costly habit to acquire. Effortlessly natural, the Final Music 5 and 6 deliver on the broken promises of so many single-ended triodes. They restore the beauty to music which so much hi-fi strips away, and they do it without the emasculating slush that has become the natural counterpoint to clinical purity.

For many of us, these amps will remain a fascinating curio, but it would be a huge mistake to ignore their wider implications, and especially the accusing finger they point at the mains supply. The Finals reveal the true extent of its all pervasive pollution. On the other hand, if you're a music lover rather than a hi-fi buff, and you've already got the speakers, don't even hesitate. There's no denying the addictive qualities of mains free music, and for the lucky few, the Finals offer a short step to musical nirvana.

TECHNICAL SPECIFICATIONS

Music - 5	
GAIN:	30 dB
Input impedance:	50 Kg
Output impedance:	60 Ohms
Power supply:	Battery drive DC ±21V
Dimensions:	W 230 x H 43 x D 160 / W 230 x H 43 x D 160 (Battery box) Including RIAA amp input
Price	£1500
Music - 6	
Maximum output:	10W
Frequency response:	0Hz - 100KHz
Power supply:	Battery drivve DC ±27V
Dimensions:	W 230 x H 43 x D160 / W 230 x H 88 x D 320 (Battery box) Including RIAA amp input
Price:	£1500

Lavardin Technologie Interview; Jean-Christoph Crozel

by Roy Gregory

RG - Could you explain the background to the development of the Lavardin amplifiers?

J-CC - The whole story started more than twelve years ago. We realised that tube amplifiers using the 300B, which measure dreadfully, are definitly better than transistor designs. As engineers we wanted to know more about this phenomenon. We couldn't state this truth without understanding it. Clearly, there was an unidentified element, something that we weren't measureing, that accounted for the tube amps' superior performance. it took us twelve years to discover what this factor was, and then find out how to apply it to transistors in order to make them perform properly, and realise their potential benefits, combining the advantages of both tubes and solid-state. We had to do a huge amount of listening and technical research.

RG - You have coined the term "memory distortion" for your discovery. Could you explain what this is?

J-CC - Memory distortion is the basic concept behind our developments at Lavadin Technologies. We call it memory because it deals with time, and not with signals. If we draw a parallel with the car industry, we can say that traditional audio measurement techniques are all based on fixed level, sinusoidal signals. This is a reverse of the Fourier Law, which states that all signals can be expressed as the sum of smaller, sinusoidal waveforms. The assumption was that if you could reproduce a sinusoidal signal then you could reproduce any kind of signal, and this is absolutely false. It is like designing and testing cars, always at the same speed and in a straight line, on a smooth surface. You will detect differences, but they will be quite small. As soon as you put those car onto normal roads, and they start having to brake, accelerate, turn corners and climb hills, you will be in for a shock, and possibly a very bad accident. This is what the audio industry has been doing.

RG - But that doesn't explain the memory distortion mechanism itself. What happens to a transistor when it has to start taking corners?

J-CC - The basis of our discovery is that a transistor holds a trace of the signal that has passed through it. In a tube, electrons pass through a vacuum, and this leaves no record of their passage, but in a transistor, we are dealing with silicon, and this leaves a trace which can persist for minutes after the signal itself has passed. Thus there is an echo, or memory, of the signal, hence the name. Clearly, if you use a constant test signal for measurement, you will be completely unaware of this effect.

RG - How does this memory effect subsequent signals passing through the component?

J-CC - We have actually identified more than seven different ways in which this memory distortion can be caused within a circuit. The tube/vacuum, transistor/silicon contrast is only one example, involving one type of component. The problem emerges in other ways too. So the mechanism can work in different ways. When the next signal arrives, the trac e may be added to it, or the trace may have altered the working domain and linearity of the transistor to such an extent that the new signal is distorted completely. The variety of damage caused makes the problems even harder to identify.

RG - So which components are effected by memory distortion?

J-CC - So far we have really only discussed this in terms of transistors, because it is a good model to explain what we are doing, and they are also where we started. The effect of memory distortion is far more widespread, but at least for the present we prefer to keep the results of our research to ourselves.

RG - And how have you eliminated this effect from the Lavardin amplifiers?

J-CC - Once you know what it is that differentiates a valve circuit from a transistor based one, you must work to eliminate those differences. This is very complex, but one example is the number of transistors that you use. Some people say that fewer transistors sound better, but this is not so if you make them work harder. Imagine two rowing boats in a race, one ▶

with forty rowers and one with four. The only way that the four can keep up is to work ten times as hard. They may go as fast, but you know that they are going to remember that race! Amplifiers are a little the same, with transistors depending on their temperature and workload to define their operating conditions. A transistor can have low memory distortion, but only if the situation is correct.

RG - Are memory distortion factors the only thing that distinguish the Lavardin amplifiers?

J-CC - It effects things in ways you don't expect. Memory multiplies if you have feedback in an amplifier. This is explains why so many people value zero-feedback designs. People have tended to blame the feedback for the problem, but in fact, in a memory free circuit, you can use it without problems. Our amplifiers could be described as world record holders for feedback ratio, but when you listen to them, they sound as though they are feedback free. Normally, because of memory components, feedb ack circuits are trying to compare a signal with something that is no longer the same. It changes within the feedback loop, and this simply compounds the problem. This is why it is critical to eliminate memory from the circuitry. Once you have done so, then the benefits of feedback are realised. Feedback free designs are like class A designs. You are treating the symptoms rather than curing the disease.

RG - Many writers have commented on the changes in transistor linearity with temperature. How important is thermal stability to the memory performance of transistors?

J-CC - It has a lot to do with it. This explains why class A is a partial success when you compare it to a conventional classAB design. But it is as I said, a mistaken response, which has more to do with accidentally lowering memory levels than with eliminating switching distortion. This is why the performance of class A designs is so variable. Some are good and some bad. It demonstrates that we never really knew what was was making the good ones better. For us, class A is a waste of energy, and we can ensure thermal stability in other ways.

RG - So far, the amplifiers you have built have relatively low power outputs (around 60 watts or so). Is this because of inherent implications in your research which limit its application to more powerful designs?

J-CC - We are working on higher power designs, but they do present different problems which we are having to solve as we go. The amplifiers we have are not ideal with low efficency speakers, but they handle difficult loads well, from a sonic point of view, and their dynamic realism means that they are very enjoyable even at very low levels. They may not be super-powerful, but this is less of a problem or limitation than it is with a conventional amp.

RG - The IT has few if any facilities. Do you plan more comprehensive designs with, for instance, remote cotrol?

J-CC - The IT is a special case, but the smaller IS and the separate Á pre-amps will all have an optional remote control, which will be retro-fittable. But I ought to point out that the dynamic integrity of the Lavardin designs means that the volume setting becomes far less critical. If the music is loud then it sounds loud, and at the same time you can still hear every tiny low-level detail because of the clarity. You listen much quieter with a Lavardin amplifier, and you'll find you don't keep turning it up, looking for more excitement. All you might need really is a remote mute for when the phone rings.

RG - Do you plan to apply your developments to digital electronics?

J-CC - You can certainly apply our work to the analogue stages of CD players, and the results are very good. But in the same way that analogue design problems are related to false assumptions about Fourier theories, digital has its own set of bad assumptions. It is something we are looking at, but don't expect anything soon.

RG - Perhaps another twelve years?

J-CC - Perhaps!

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Lavardin IT Integrated Amplifier and PO Phono Stage

by Roy Gregory

Have you ever opened a window to get a better view? We all have, which is what makes it such an attractive description for the improvements we often hear in hi-fi systems. In fact, it's become something of a cliché, over used and consequently devalued. In reviewer speak, we refine the notion as 'transparency', but few of us take the time to explain exactly what we mean by it, or discuss its real value.

Enter the Lavardin IT integrated amp, a product of such obvious and stunning clarity, combined with a natural musical coherence, that it forces me to face the inadequacies of the stock vocabulary. I first came across the Lavardin when it pitched up on my doorstep, unheralded, all the way from France and accompanied by some fairly sweeping claims (see the accompanying interview with Jean-Christophe Crozel). Despite a deep and abiding cynicism concerning the "we know why amps sound different" description of the product, even a quick listen forced me to re-evaluate. This wasn't a case of opening a window. More like throwing open the drapes! I've been boring people with my enthusiasm ever since. The performance of the IT challenged all my cosy pre-conceptions. And yet, externally and on paper, there was absolutely nothing to indicate anything out of the ordinary.

The Lavardin IT is perhaps best understood as a technology demonstrator, shorn of every extraneous facility and intended by the company to showcase the fruits of its research. It's understated appearance, moderate power, and hair-shirt facilities make the £3200 price tag something of a shock - until you listen to it! That's when it moves the goalposts.

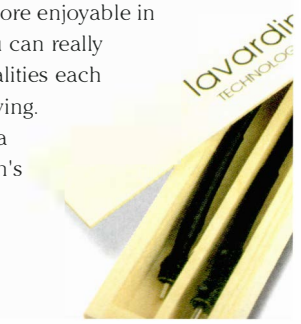
What the Lavardin amplifier possesses is the ability to make almost every other amplifier sound cluttered and clumsy. Such is the ease with which the Lavardin presents the music, that the flow of energy is perfectly paced and spookily natural. This is a truly transparent product, but as I said earlier, that will need some defining. How is it transparent? Let me count the ways.

Firstly, it's transparent to the recording. This is perhaps, the most common use of the term. What it means is that we can hear the elements of the recording laid out in space. Whether it's a purist production with each instrument identified and locked in its acoustic space, or a heavily manipulated studio recording, laden with effects and stacking instruments higgledy piggledy , the Lavardin lets you hear right into the recording itself. Each element and instrument is clearly separated, its contribution preserved intact. In terms of our window, it makes other amplifiers sound like the glass is or heavily tinted, whilst the IT lets you throw it open, lean out and look around.

And that clarity extends to the time domain. When a note starts, and how it decays, is beautifully preserved, so that the rhythmic relationships and tensions within a piece, and between the players also survive. Not just the notes that are played, but when they play them. You get the internal chemistry, if you like, whether it's the effortless ensemble playing of the Basie Big Band as they unleash another shattering brass tutti, or the rhythmic hitch kicks and complex interleavings of 'La Folia' (Harmonia Mundi HM1050). I keep stressing the delicacy and precision of this amp, but make no mistake, it's quick, and that means it really rocks. Wide range dynamics are really explosive, and well recorded snare drums go off with a real crack. The pitch, shape and impact of bass notes is especially impressive, and they really propel music like Steve Earl's 'Copperhead Rd.'

The second realm in which the IT reveals its qualities is transparency to the performance. This amplifier tracks dynamics better than anything else I've used. The tiny shifts in level which allow a musician to shape a melody or lyric are the tools of expression. They are the micro-dynamic details which separate one performer from another, a great performance from the merely mundane. Of course, if your system collapses or blurs these details, then the gap between brilliance and the merely adequate narrows accordingly. The Lavardin allows stellar performances to soar, as well as clearly defining the nature of the performers themselves. Ricci's tantalising delicacy and poise are captivating (Bizet Carman Fantaisie Decca SXL 2197), as is Martzy's intensity (Beethoven *Kreutzer* Sonata, Coup d'Archet COUP003), but the IT displays the contrast between the two more clearly than ever before, which makes them both even more enjoyable in their own way. You can really appreciate the qualities each brings to their playing.

And here's a thing. The Lavardin's



Less is More?

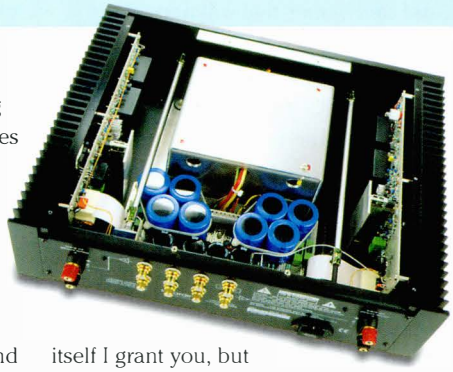
The Lavardin IT is the first model in the company's Reference Series of products. As such it performs the role of technology demonstrator, and in order to best display the merits of their novel circuitry they eliminated anything that might compromise the sound quality. Thus you get four inputs, a volume control and a single set of four millimetre binding posts. No tape loop, no pre-out and definitely no remote control!

Set-up couldn't be easier, as long as you follow a few simple rules. Both units should be supported on wooden shelves (not glass!), and fed using their own interconnect cables. The PO stays permanently powered, but the IT can be switched off. It really does only take a few minutes to sound its best. Both units should be used with their supplied power leads, not after market 'upgrades', and speaker leads should be connected at right angles to the binding posts. I will admit to a degree of suspicion when I heard this list, but I've checked and verified each and every instruction. These guys clearly know their product inside out!

The Model IT is no power house, although its exceptional performance at low levels does compensate to an extent. See the interview for Lavardin's views on speaker matching. I've used it with a great many different speakers, but on the whole I think that a sensitivity of around 90dB is a good target.

The PO phono stage is dealer configurable for resistive and capacitive loading as well as gain (the changes involve soldered links). You get best sonic results earthing via a signal return a la Rega, but there's an earth post should you need it. Other than that, you get two front panel switches; one is the essential mute while the other is a high pass filter to take care of severe warps.

Inside, both units are neat, but there are a surprising number of components, especially given the clarity of the sound, and another indication that these units are far from run of the mill. Casework and control feel are both excellent without being over the top, and the overall effect is one of understated quality. Finish is any colour you like as long as it's black. The company also makes a cheaper S Series, each item being about half the price of its Reference counterpart.



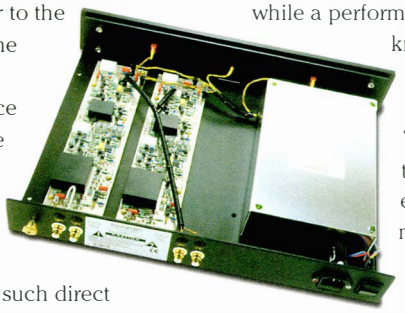
dynamic capabilities extend beyond simply telling you whether something is louder or softer. It scales the changes precisely, which creates an incredibly natural sense of instrumental presence, integrated into a complete acoustic. And that sense of holistic correctness encompasses overall dynamic range. The IT shades dynamics just as precisely at either end of the dynamic spectrum, and irrespective of volume. Let me say that again; irrespective of volume. In fact, it is so dynamically coherent that you can play it at astonishingly low levels without any loss of impact or enjoyment. Normally, when you turn a system down it sounds flat and sat on, your ears taking time to adjust. With the Lavardin you adjust almost immediately. While demonstrating the amp to friends and colleagues, I could halve the volume whilst changing a disc or record without the listener noticing! Not particularly useful in itself I grant you, but think what it means in terms of maintaining dynamic range and presence at low levels, and the ability to play music both quietly and convincingly.

Thirdly, the Lavardin is transparent to music. Que? Well, despite all this talk of clarity and precision, and unlike many other amps that have trodden this path, it doesn't destroy poor recordings. It simply gets as much out of them as possible, making even difficult music far easier to unravel. And that opens huge vistas of musical opportunity. If you are looking for romance, then you'll be better off elsewhere. There's no rose tinted harmonic bloom or cushioned transients. But there's no hardness or sterility either, and whilst I hesitate to use the term, what you get is a pretty broad slice of musical truth. It doesn't matter what you play, the amps won't obstruct the message, it just sounds right.

So where does that leave the phono stage? As soon as I heard the IT, my first thought was "jeez, I'd like to hear what these guys could do for moving-coils". And whilst I've had to wait a while, the $2500 PO has been well worth the patience. Historically, moving coil stages have tended to have either definition and detail or life and body. They can involve or amaze, but not both. The Lavardin PO not only bridges the gap, it extends the performance at both ends. All the characteristic qualities of the IT remain, but given the tiny signals involved,

they are even more relevant to phono amplification, and the musical results are even more impressive. In keeping with the IT, both noise levels and surface noise are extremely low. Certainly low enough not to intrude on your musical pleasure. The sense of life and bite from Ricci's bow as it skitters through the closing bars of Paganiniana (Water Lily WLA-WS-06) is breathtaking. And the palpable space that surrounds the performers in the RCA Soria Carmen really adds to the live quality of the recording. Music via the PO is spectacular in the real sense of the word. Instruments and voices have greater solidity and stability, and this lack of wander in the imagery has a surprisingly beneficial effect on the system's ability to let you relax into the performance.

The sense of air around instruments is most apparent at the bottom end, where most electronics fail so miserably. The Lavardin combination doesn't just define bass notes, it floats them on a cushion of air, just the way they do in the concert hall. And whilst I prefer the additional air and space that I get from the top of the JA30s, comparisons to live sound show that once again, the Lavardin is closer to the truth. Likewise, the IT/PO makes the attractive presence and colour of the Pass/Jadis combination's midrange seem slightly gaudy. Normally I avoid such direct comparisons, but it's instructive to note how readily the Lavardin components reveal shortcomings in a (much more expensive) system that I've been honing to a fine edge over the years. Which is better? That's a personal choice. Which is more accurate? No contest, especially at the bottom end. The IT/PO's combination of clarity, dynamics and naturalness has lifted vinyl performance to new heights, and not just in terms of detail or focus, but in the record's ability to musically convince. I listen more, I question less.



I've already described the way in which these electronics open access to new music, simply by making more sense of it. But the real shock with the PO comes when you play something you know really well. It bit me when I listened to the Siegel, Slatkin, St Louis 'Rhapsody in Blue' (Reference Mastercuts RM-1003). I've always loved this version, and Siegel's piano brings a sense of seedy darkness to a score whose performances are often altogether too jolly. Played through the PO, the dynamic discrimination and subtle weighting of the piano notes, the poise of the rests, the stretching of the convoluted rhythms, all lifted the performance to new heights. The now obviously percussive nature of the piano itself, and the complexity of its harmonic structure brought the instrument's mechanics to life. The controlled energy and restraint of Siegel's playing was laid out, clear to hear, while the orchestral crescendos had even more power and control, making the dramatic contrasts that much more effective. I sat mesmerised while a performance I was convinced I knew surprised and entertained me all over again.

The bottom line here is that the Lavardin electronics produce more music, more coherently and consistently than any other amplifiers I've had at home. They also represent the first serious challenge to the Jadis in something like ten years. They are effortlessly un-fussy, and if anything, sound rather understated. If you want spectacle and fireworks, or a comfort zone, look elsewhere. But if you value the natural presentation of the widest possible range of music, they should be top of your list. I'm in no position to assess the accuracy, or otherwise, of the technical claims made by Lavardin, but they certainly seem totally consistent with the way the amps sound, making a sort of intuitive sense. They really do let you have your cake and eat it. In the year or so since I first met the IT integrated amp, it, and now the PO phono stage, have become both essential tools and a source of constant pleasure. Reading back over this copy I was concerned that it might seem a bit on the dry side, but that is because I've been at pains to try and explain exactly why the Lavardin electronics stand apart from (and above) the crowd. In a world which continually rejuvenates and rediscovers old technology, these products could just represent the most significant breakthrough in audio circuitry for years. Do I like them? Could I live with them? Do I covet them? Yes, yes and absolutely!

TECHNICAL SPECIFICATIONS

Lavardin IT Integrted Amp

Inputs	4 x Line
Input Impedance	10kOhms
Imput Sensitivity	380 mV
Outputs	None
Power Output	55 Watts / 8 Ohms
	85 Watts / 4 Ohms
Bandwidth	0-32kHz
Dimensions (W x H x D)	430 x 135 x 310mm
Price	£3200

Lavardin PO Phone Stage

Inputs	1 (MC or MM)
Input Impedance	Adjustable
Imput Capacitance	Adjustable
Gain	40-80 dB @ 1kHz
Dimensions (W x H x D)	430 x 85 x 310mm
Price	£2500

Distributor

Absolute Analogue
Tel. (44(0)1425-654488
Fax. (44)(0)1425-654400

Manufacturer:

Lavardin Technologies
www.lavardin.com
e-mail. info@lavardin.com

Is It Magic?The ability of these cables to recreate a sense of depth and space is exceeded by none that I evaluated.Roman Zajcew.
The Absolute Sound, July 1998.

Quiet, full-bodied, apparent dc to light extension, extreme high resolution, wonderful spatial qualities, these cables let the Jadis amplifiers be all they might.
Jonathan Scull, Stereophile, March 1996.

Why play with firecrackers when somebody hands you dynamite?... The sound knocked me out. These Goertz speaker cables and interconnects just totally surpassed the quality of the cables I was using earlier.
Clement Perry, The Audiophile Voice, Volume 3, Issue 2.

Goertz Interconnect and speaker cable
"The ability of these cables... is exceeded by none... I don't see how this cable can be bested"
The Absolute Sound - August 1998.

(cited values of GOERTZ AG2)

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Conclusions

by Roy Gregory

Each of these amps has, in its own way, justified our interest, and challenged our conceptions of what is musically possible from a hi-fi system. And whilst they vary in price, none could be considered expensive in the grand scheme of things. (That doesn't mean they don't cost a lot, it just means that you could pay an awful lot more if you wanted to.)

The Pass Aleph 3 places musical satisfaction to the fore, a performance that defies the sum of its parts. It managed to seduce Chris away from his monster valve mono-blocks with nary a twinge of withdrawal, and its load tolerance and even manners are a bonus. As CB says, you can identify its shortcomings, but somehow they simply don't seem to matter.

The Final music amplifiers are absolutely fascinating, but they are also genuinely low-powered and whilst they'll drive a speaker down around 90 dB, your pocket is going to wish they hadn't. Unless you have an inexhaustible supply of free dry cells, then the only option is a seriously efficient speaker system, and that means expensive or second-hand. You are looking for 100 dB+, and models from Avant Garde and Living Voice spring to mind. You get my drift.

But once you have sorted out the speakers, the amplifiers' musical potential is staggering. They are devoid of the usual character that defines a hi-fi system and consequently they seduce and convince in equal measure. If you value a musically expressive performance, and you have, or are prepared to make the commitment on the speaker front, then the Finals should be top of your list of must hear amplification.

Which brings us to the Lavardin and DNM, amplifiers which differ enormously in approach yet sound more alike than they do different. In many respects they are also the most approachable models in this group. Both make other amps sound cluttered and clumsy, and both bring systems to life. As such they represent the purest incarnation of the low-powered ideal, substituting dynamic range and agility for sheer volume.

Of the two, the DNM offers superior transparency, focus and rhythmic drive. The Lavardin excels in terms of overall coherence and rhythmic sophistication or feel. Both are quite superb musical performers, and the PA3S is quite possibly the finest solid state power amp available at its price. The DNM combination is more expensive than the Lavardins when you take phono into consideration, albeit not massively given cable costs etc. But for the line only user there's no contest. Which begs the question, when will DNM produce a line integrated amp based on the PA3S. Now that would be one hell of a product.

Do these amps challenge the high powered competition? Yes they certainly do. Whilst you swap one set of compromises for another, the small amp solution seems inherently more lifelike than the majority of monster amps. Yes, it's possible to produce a big amp that works, but it has to be said that it seems to be easier to build efficiency into a speaker than power into an amplifier.


Jupiter
SHUFFLE
SPACE
STEP
REPEAT
A-B

Rega Jupiter and Io - A Musical Balancing Act -

by Dave Davies

The Jupiter and Io are Rega's first foray into the two-box CD market. Based on the same slim casework used by the Planet single box player and other Rega electronics, the design of the pair is both understated and very distinctive. But how come they've gone for a separate transport and DAC just when everybody else, beset by interfacing problems, seems to be reverting to integrated designs?

Rega have chosen the two-box route since they feel that the Planet provides the best possible performance from a single box player within its price band. The Jupiter and Io are designed to substantially improve on the key qualities of the Planet, and appeal to users in the next price bracket. The pair are also designed to provide a stepped upgrade for Planet users, the path being Planet - Planet/ Io - Jupiter/ Io. This forms an essential part of the two-box rationale.

Hooked up to my system and replacing my slightly long in the tooth Meridian 506/2, it was quickly apparent that an extended run-in is essential. Of course, a new product will always need a break in period, but the Jupiter/ Io still sounded distinctly thin and edgy with little noticeable improvement after a couple of days of continuous play. Making insufficient allowance for the Rega being a brand new player, my immediate reaction was surprise that a latest generation product wasn't able to match my aged Meridian. The latter still demonstrated much more presence, stage depth and general musicality. It was only after another three days of constant playing that the Jupiter and Io began to demonstrate their true character, overtaking the Meridian and continuing to improve over the next week.

Rather than perhaps unfairly compare the Jupiter with a machine from a couple of generations back, a similarly priced Arcam Alpha 9 was brought into service. This proved fascinating, with the two machines demonstrating that they were effectively polar opposites. The Alpha showed great finesse and was capable of drawing the finest detail and nuance from a performance. However, I found the staging unacceptably flat, with very little image depth. The Jupiter and Io generated a far more credible image with much greater depth and volume. Better still was the bass performance. This was some of the deepest and most tuneful I've encountered from a CD player, certainly at this price.

The one slight drawback with the Jupiter at this stage was its failure to latch onto a tune and drive it along. This wasn't apparent with all material, but stuck out like a sore thumb where rhythm and timing were key to holding a complex performance together. A good example was Shawn Colvin's version of 'Every Little Thing (He) Does Is Magic' from '*Cover Girl*'. The Alpha 9 allowed the powerfully strummed acoustic to drive things ahead, with the vocals naturally placed and everything surging along with absolute cohesion. Whilst the Jupiter had obvious strengths in other areas, this cohesion wasn't one of them. To exaggerate what is admittedly a very fine point, it felt as if the musicians were playing at marginally different tempi. Knowing this to be absolutely at odds with the Rega approach to musical reproduction, some experimentation was clearly called for.

The most obvious culprit (and so it proved), was the digital interconnect. I'd been using the supplied Rega 'Single' cable until I substituted some Audioplan Digitenna at an early stage in the run-in process. At the time, this enhanced most aspects of performance, bringing the best from an already excellent bass. The problem was, that with the sound not really hanging together, it's disjointing effect overall was hidden. A quick swap to the Single got things back into their stride, but left me lusting for the lost weight and dynamics of the (more expensive) Audioplan.

In the quest for perfection I tried some Chord leads before frustration drove me further up the financial

ladder. A lot further. A metre length of Nordost Quatro Fil was popped in place. Problem fixed ! Now tunes simply waltzed along with just the right pace and required energy, and whilst the bass was marginally less convincing than with the Digitenna, everything else was just as good. Of course, at something like ten times the price of the Rega cable (and more than either of the electronics!), the Nordost should sound a lot better. Was there a cheaper alternative? A call to Nordost resulted in a length of the brand new and slightly prophylactic sounding 'Silver Shadow' which is, unlike the Quatro Fil, a dedicated digital cable. Having felt that the pricey Quatro Fil was finally allowing the Jupiter to give of its best, the Silver Shadow proved me wrong.

From it's virgin state of a thin sound with more than a trace of hardness and little staging, the Jupiter was now transformed. Whilst it still didn't offer the ultimate in retrieval of fine detail, it simply got on with the job of making music. This was managed in such a compelling manner that little else was of much importance. Bass performance remained a strong point, being full bodied with just the right degree of warmth, control and when required, sheer clout. Staging was good if not exceptional but its ability to lock into the essence of the music made individual elements of no real consequence. Regardless of the type of music chosen, the absolute cohesion of the sound drew me in again and again.

Whether it was the sheer punch of Basie's band in overdrive on '*Farmers Market Barbeque*' (Analogue Productions CAPJ 023), the rhythmic drive and killer bass of Antonio Forcione and Trilok Gurtu's '*Ghetto Paradise*' (Naim CD 032), or the warmth and evocation of Barbirolli and the Sinfonia of London in Vaughan Williams' 'Fantasia on a theme by Thomas Tallis' (EMI CDC 7475372), I never felt emotionally short-changed.

The way that Basie opens the album with a few, trademark relaxed, slyly played chords just behind the beat, against simple percussion, bass and guitar is superbly conveyed. There is a palpable air of anticipation before the full band kicks in and as Basie makes the racing gear change to top, there's a sense of joy and release that's one of those great moments in jazz. The Rega was able to give me the same anticipatory tingle down the spine every time I played this number. The Arcam let me hear much more detail, more of a sense of fingers brushing strings in the strummed guitar in the intro for example, more 'woodyness' to James Leary's bass, more definition of individual players in the full band, but the tingle factor just wasn't there. Forget the fine detail,

Technology and set-up

For a die-hard vinyl user like me, there's something comfortingly familiar about the Rega's top-loading mechanism, mounted in its slim line case, with the bare minimum of stylish but hard to see rubber buttons. Simply raise the cantilevered cover, pop in a CD, and gently swing the damped cover back into place. The CD is clamped to the spindle with an auto-locating puck and promptly scanned. A touch of the play button and thatis it. Again, being vinyl friendly, I find the sight of a spinning disk through the clear cover oddly re-assuring.

Rega favour the top loading design since they feel this format is inherently more reliable than drawer mechanisms, whilst also providing greater accessibility to the laser diode assembly should service or repair be necessary. The transport is essentially the same as the one in the single box Planet, using a Sony CD mechanism, although the power supply has been substantially improved with separate regulation of the digital output and transport mechanism. In common with many professional applications, EMC filtering of the SPDIF digital output and mains lead has been applied. Also in common with the Planet, the Jupiter avoids the need for costly sub-chassis isolation systems by the simple expedient of using their proprietary VCS (viscous coupled system) feet. These worked very well, providing very adequate isolation, and brief experimentation proved that the player was not improved by the addition of separate isolation mechanisms such as the otherwise excellent Nordost Pulsar Points.

The Io DAC is all new. Two Burr Brown DACis are used in differential mode, and the master clock frequency is re-clocked by a phase locked loop. A multiple power supply with separate regulation of the digital input, phase locked loop and DAC's is employed, and the Io is compatible with 32, 44.1 and 48kHz sampling rates. Curiously, there is no real flexibility with regard to alternative uses since a single digital input is provided, with no additional capacity.

Both products have captive mains leads.

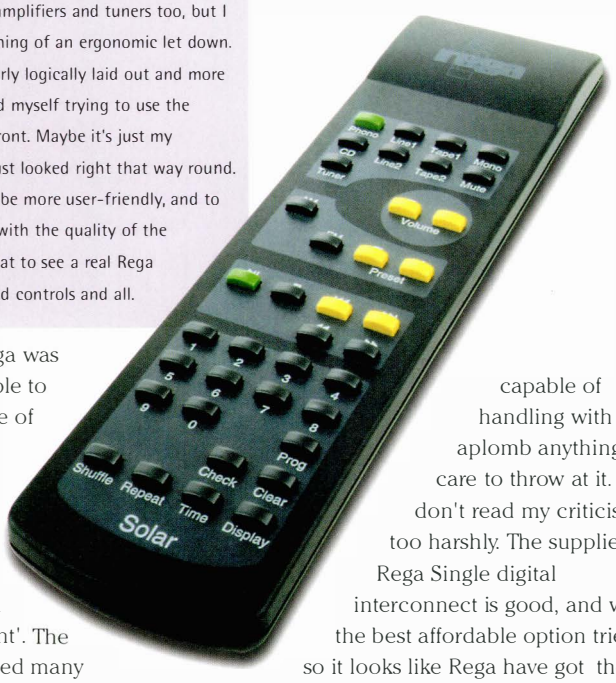
Remote control

The Jupiter, like the single box Planet, is supplied sans remote. This seems a reasonably sensible approach since costs can be contained to absolute essentials, whilst those who really want a remote can choose between a basic unit for the player alone, or a full system remote. I was supplied with the more complex version (they all cost the same , at £25). This is obviously designed to run amplifiers and tuners too, but I did find it something of an ergonomic let down. It is not particularly logically laid out and more than once I found myself trying to use the remote back to front. Maybe it's just my stupidity but it just looked right that way round. Note to Rega: to be more user-friendly, and to sit more happily with the quality of the player, it'd be great to see a real Rega remote, rubberised controls and all.

for me the Rega was much more able to convey a sense of 'you are there witnessing a great band having a great time and sharing in their enjoyment'. The Arcam exhibited many strengths, principally that of accuracy and detail, whether in precise, consistent positioning of players within the soundstage or of fine-detail rendition. It was much more capable than the Rega of conveying the real character of a voice or instrument. Its weaknesses were principally in restricted reproduction of stage depth and, for me much more importantly, in getting to the heart of the musical emotion. The Rega created a realistic sense of space, including stage depth, tightly defined deep, deep bass AND emotion in bucket-loads.

Further proof of this can be found in the fact that with the Jupiter and Io in-situ, I no longer worry about qualitative trade-offs in choosing whether to play a CD or an LP. I'm simply selecting the music I want to hear, regardless of format. And whilst I'm not claiming that the Jupiter and Io equal my trusty Michell, they come close enough for it to become relatively unimportant. High praise indeed!

I feel this Rega will become an essential shortlist player in this price band, especially for those who value sheer musicality above fine detail. It's



capable of handling with aplomb anything you care to throw at it. And don't read my criticisms too harshly. The supplied Rega Single digital interconnect is good, and was the best affordable option tried, so it looks like Rega have got the critical digital transfer right. However, to get the very best from the player, and as a cost effective upgrade (believe it or not!), I strongly recommend the feather light application of a length of Nordost Silver Shadow. You won't be disappointed - but you will be shocked. I know it costs a lot, but you can take that as an indicator of the Rega's inherent musical quality.

I never got the chance to try the Io as an add-on to the Planet, but owners of the original Rega player should be just about ready for an upgrade by now. On this evidence the new DAC should be top of their audition list.

Rega's stated philosophy is that music is the pivot on which the company is balanced. With the Jupiter and Io, they've reinforced the point.

TECHNICAL PANEL

Rega Jupiter

Product Type:	Top loading CD transport.
Digital Output level:	0.5V
(load impedance 75ohms)	
Digital sampling frequency:	44.1kHz
Dimensions (W/D/H):	435x256x64
Required space for operation:	435x270x100
Finish:	Black

Rega Io

Product Type:	to analogue converter
Analogue output level:	2V RMS @ 1kHz
(minimum load impedance: 10K)	
Digital input level:	0.5V 75ohm load S/PDIF coaxial
Digital sampling frequency:	32KHz, 44.1kHz, 48kHz
Dimensions (W/D/H):	435x256x64
Finish:	Black

Prices:

Jupiter:	£598-00
Io:	£450-00
Bought as a pair:	£950-00

(price includes Single digital interconnect)

Remote controls:

CD:	£25 -00
Solar System Remote:	£25-00

Manufacturer

Rega Research Ltd
119 Park St
Westcliff on Sea
Essex
SS0-7PD

Tel: (44)(0)1702-333071
Fax: (44)(0)1702-432427
e-mail: design@rega.co.uk

Revel Ultima Gem Loudspeaker

by Chris Thomas

Surely any loudspeaker designer would envy Kevin Voecks his position as head honcho at Revel. Voecks proven pedigree as the man behind the Snell designs must have encouraged Madrigal to give him carte blanche, access to world class research and development facilities and an open cheque book to produce what has turned out to be one the most innovative and exciting range of speakers I have ever heard.

Madrigal produce the Mark Levinson and Proceed range of electronics and they are owned by the enormous Harman International, hence the financial clout needed to research and produce a new range of drive units specifically for Voecks' designs. At the moment the range consists of three main designs plus associated surround sound models. For the last few weeks I have been listening to the smallest of these, the Ultima Gem, which can be supplied with or without the dedicated Sub-15 subwoofer and LE1 amplifier. I chose to try them as stand alone speakers, supplied with only their pedestal stands.

They come packed in seven boxes and self-assembly gives you an idea where the money goes. Build quality and finish is truly fantastic, typically Madrigal and as good as I have seen with any audio component. The rear-tapering cabinets themselves are constructed from heavily-braced MDF and are surprisingly light until you bolt the side panels to them. Depending on which finish you choose these panels are either wood or aluminium and are fitted with a thick, dense viscœlastic layer which sandwiches between them and the cabinet itself. They are also used to provide mountings for the curved grille. The stands are equally impressive constructions and should be considered as an integral part of the speaker, so don't think you can get away without them. The base can be either wood or aluminium to match the cabinet panels, and the supporting column is sand filled. All these separate components are then very securely bolted together to form an extremely heavy and imposing structure. Though the Gems themselves are small at 19.5" high, 8.5" wide and 17.5" deep, they stand close to 50" high on their stands and this means they take up as much space as larger floor standers.

Each Gem incorporates 4 drive units including a rear-mounted tweeter that has become a bit of a Voecks' trademark. The two 5" mid/bass drivers are particularly interesting, each being made of a single concave dome of titanium with no central dust cap and suspended by a magnesium frame. Rather large 2" voice coils are wound with flat aluminium wire used on its edge to give as great a concentration of winding in the small magnetic gap as possible. These units are loaded with a 2" rear mounted tapering port that extends 6" into the cabinet.

Perhaps, surprisingly, the tweeter is not a metal design but rather a 1.1" fabric domed model from the Danish Scanspeak Company and is sited between the two larger drivers. The second tweeter, 0.75" this time is mounted high on the cabinet's rear and operates above 8Khz to support the front tweeter performance and increased directionality above this frequency. Very little in the way of solid detail comes from this unit as its main function is to add air and ambience to the presentation. Each tweeter has its own individually calibrated level control just above the rear bi-wired connections and these offer pre-set but very effective flexibility to suit different listening rooms and tastes. The Gems are internally hardwired with Kimber cable. The review pair looked fantastic in high gloss midnight blue with aluminium side panels and stand base. They are as much a design statement as a hi-fi component, though there are several other combinations of finish available which also have a profound bearing on the price.

I used a Mark Levinson No380 preamplifier and a No331 power amplifier combination to drive the Gems, connected by balanced Madrigal CZ Gel cable. I am sure that Levinson electronics were used to develop the Revel range so system synergy should be taken as read. The musical signal was provided by a Naim CDS 11 and the speaker cables were bi-wired lengths from Naim, Tice, and Leider, plus single lengths of the fabulous Tara Labs RSC Decade. But first came the complex job of siting the speakers. It isn't as if they beam high frequencies, boom or sound awful if not correctly located but the rewards from getting them just right are enormous. Even before I started experimenting with their distance to rear and side walls and their toe-in, it was obvious that the Revels are a ▶

truly class act. In fact, I really could not believe how refreshingly different they sounded. Totally out of the box, open and realistically dynamic, with tremendous speed and control. They show an amazingly natural quality to instrumentation, both tonally and dynamically, and a totally effortless approach to presentation that just does not normally come from such small boxes. The only doubt was a slight treble glare, nothing approaching hardness but perhaps a consequence of their lean coolness of tonal balance.

It took a couple of days to get their siting just right. They like plenty of air around them and a modicum of toe-in, depending on how far back you sit. When you have that right you can begin to experiment with the tweeter controls. I found that with the speakers sitting well forward of a double bay window the factory flat settings were about right, but at night with closed curtains, advancing the rear tweeter level made up for the increased high frequency absorption and the perspectives were restored. This is a subtle effect and hardly noticeable until you switch the rear unit off altogether when the sound collapses slightly. It is all a matter of experimentation but small positional changes are the key to getting the best from the Gems and when you do.... WOW! The presentation of the soundstage and the musical perspectives it presents you with are better than any just about any speaker I have ever heard, and that includes electrostatics. The Gems literally disappear from aural view, leaving only the music, rock solid and fantastically vibrant. The more I listened the more I learned. With optimal siting, the glare I mentioned had now completely gone, and I began to think that the cool balance was really a lack of coloration and cabinet effects. Rest your hand on a Gem side panel, even at high levels and it is remarkably unexcited. They are not just there to look pretty. The small, stiff cabinet is heavily mass damped by those bolt-on cheeks, and gives the speaker no built-in bass or false warmth. Their extension and control comes almost entirely from the work the drivers are doing, and not from the box and baffle singing along in jagged harmony.

How good can the bass performance be from such a small speaker using such modest-sized drivers? With the cabinet failing to make any significant contribution, extension is admittedly somewhat limited, but the two titanium drivers are truly exceptional units. Bass goes lower than you might think, but that is still not, in real terms, very low. But the quality and tautness is superb, making them both agile and informative.
I believe that, in comparison, every small high quality speaker I have ever used has suffered from driver compression to a far greater degree. There is something in the nature of the way an instrument or a voice grows loud that has, for years, stumped everyone from microphone designers and recording engineers right through to those who make the equipment we listen to at home. As the level increases the equipment only manages to go with it for part of the way. After that, any increase at the source is not matched at the output and a kind of aural squeezing takes place, that we perceive as a hardening of the sound. It is why grand pianos and violins, in particular, are so difficult to get right. A 'limiting' effect takes place that tends to bunch-up the note, hardening the leading edge and in the most severe cases turning 12' concert-grand's into honky-tonks with drawing pins stuck into the hammers. Listen to Keith Jarrets *Köln concert* to hear just how horribly unnatural this can sound. It can though also lend an air of excitement to some music, and gives false readings as to just how dynamically free and open a piece of audio kit might be. Ask any electric guitarist how he can give his instrument a more dynamic and 'leading-edge' sound and he will reach for his compressor.

When I mentioned earlier how refreshing the Gems were, this is what I was picking up on. In fact I believe they might even sound initially dynamically quite underwhelming to most listeners, as they are by no means forward or brash in their presentation. They do not reach out and slap you round the face but rather present you with a musical painting and invite you to step in.

Their unflappable calm and control, even under the most arduous musical conditions, is another tremendously impressive aspect of their performance. Only on hard rock were they mildly disappointing. It's not that they don't rock but rather that they somehow never sound dirty or

visceral enough. Add a bit of distortion and some compression though and you would be in business.

The Gems drink power at an alarming rate and their 87dB efficiency means that using high-powered amplification of immaculate quality is absolutely mandatory. The Mark Levinson range is an obvious choice, but my No380 pre and N0331 power amplifiers are entry-level models, and good and powerful though the combination is at 100 watts per channel, I really felt that I had only heard a fraction of what the speakers were really capable of. I say this as they are enormously revealing of even the slightest change in system configuration whether it be the siting of the preamplifier or a change in toe-in.

All of this fantastic detail, imagery and openness are mightily impressive but they are hi-fi terms and, to me, would make the Gem worthless if their musical abilities were as inert as their cabinets. Far from it. The way in which this speaker pulls the threads of hi-fi and music together is enlightening and somewhat unique. Rhythmically their speed and formidable transient abilities combine with their relaxed nature to perfection, leaving the Gems unfazed and in control regardless of what the amplifier is telling it to do. Whether it is a small individual note plucked on a mandolin, or a full orchestral salvo, they are simply uncanny at showing the full shape and glory of the instrumentation.

You probably noticed that I am quite keen on these speakers, and trying to balance the review by finding bad points is not easy, but here goes. They are not great at low levels and can appear a little lightweight and thin at times. And they do seem to come alive as more and more power is fed into them. So clean are they that, if you bought a pair, I absolutely guarantee you that you will drive them harder than anything you have owned before - and love it. They are totally unforgiving

of poor recordings but then most loudspeakers of this class are. What may be more of a problem is how unforgiving they are of anything other than absolutely top class ancillary equipment. They simply will not tolerate anything other than the best. We are talking about five grand a box hi-fi here, and that's a minimum. As I mentioned before, the Mark Levinson range is a safe bet and perhaps Krell or Jeff Rowland could do the job. Also speaker and interconnect cables are realistically likely to cost a figure well into the thousands, so this is not a speaker for the financially faint-hearted.

Prices are high, especially if you want one of the more exotic finishes. The cheapest way to get into a pair of Gems is to have them in mat black with wooden side panels finished in rosewood, light oak, black ash or even left unfinished and this will cost $4795. To this I am afraid you will need to add the stands which, with their base finished in a matching colour to the side panels cost $1095. Tastier finishes are all high gloss. There is midnight blue, like the review pair, piano black, forest green, heather grey and a rather exuberant red. They all cost $5695 with the wooden side panels, but look at their best with the aluminium ones, which add another six hundred pounds. The price of the review pair was $7944.

Real quality is never cheap but this sort of quality is rare. Kevin Voecks is to be congratulated.

TECHNICAL SPECIFICATIONS

Revel Ultima Gem

Frequency Response	70Hz - 15kHz, ± 1dB
	-6 dB at 47 Hz
Sensitivity	87 dB/w at 1 meter
Impedance	6 ohm nominal
	4 ohm minimum
Dimensions (h,w,d)	19.5" x 8.375" x
	17.375"

Prices:

Gem Loudspeaker	£4795 - £6295
Stand	£1095 - £1649
Replacement Side Panels	£389 - £799 / spkr
Replacement Stand Base	£269 - £569 each

Distributor:

Path Premier
Tel. (44)(0)1494-441736
Fax. (44)(0)1494-440360
E-mail. premier@path.co.uk

Manufacturer:

Revel Corporation
E-mail. support@revelspeakers.com
Web. www.revelspeakers.comm

OPEN
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DIGITAL AUDIO

Sugden Audition CD Player

by Pete Christie

I've never been too bothered about the physical appearance of hi-fi. "If it sounds right, it generally is right" has been my basic philosophy, and I still stand by it. OK, so I'm in a bit of a minority. I realise that the WCF (Wife Compatibility Factor) can count a lot in a persons' selection of the perfect purchase, but compromising sound quality for marginal aesthetics in my opinion, is a bit of a cop out. That's not to say that I can't appreciate a stylish bit of kit. I can! I quite often drool over the Helios Stargate CD player, and who could possibly resist the superb designs of some of those frighteningly expensive Italian valve amps? However, in most of the sub-$1000.00 CD player market, I've noticed that if you want style, you tend to lose sound quality, and if you want sound quality, the style tends to go out of the window. Yes, there are a few exceptions, but on the whole, as with most consumer products, mass-production budget restraints dictate that style levels remain minimal.

I own a Trichord Genesis, and I can confirm that this theory is born out admirably. Based upon a Pioneer PDS505 (not exactly the most beautiful CD player in the world), Tom Evans adapted, modified and improved the sonic qualities to an amazingly high level, then stuck a paper label on the front panel where it used to say Pioneer. Sure, turn the lights out while you're listening to it and it certainly sounds beautiful, but in daylight it just looks like another bit of cheap Japanese hi-fi. That's OK with me - I still love it!

Wouldn't it be great if someone could come up with hi-fi that could be aesthetically adaptable as well as sonically acceptable?

I've got news for you - Sugden have, and it's called the 'Audition Compact Disc Player'.

The Audition CD single box player is designed to complement the 'Audition' series of amplifiers, the 'T' and 'C' integrated amps, and the imaginatively named 'Pre' and 'Power' combination. And complement is the right word. A British CD player which looks good, and doesn't cost a fortune! - $650.00 to be precise.

I am not going to say any more about the amplifiers at this point - it's the CD player I'm interested in for the purposes of this review. Suffice to say that the whole range has a visual synergy that is a cut above most equipment in this price area.

The unit that was supplied to me was a typical British standard 17" wide box finished in a deeply anodised, sexy, glossy black, though I was delighted to discover that Sugden can supply various front panel finishes, most usually all black or all silver, though the combination that caught my eye was silver top and bottom, with a grey centre. And what a front panel! None of your flimsy, cost-effective paper thin aluminium pressing here. The Audition front panel is a substantial, solid, machined slab of aluminium. Together with the rest of the casing, it makes up probably the most solidly rigid housings I have come across in CD players at this price.

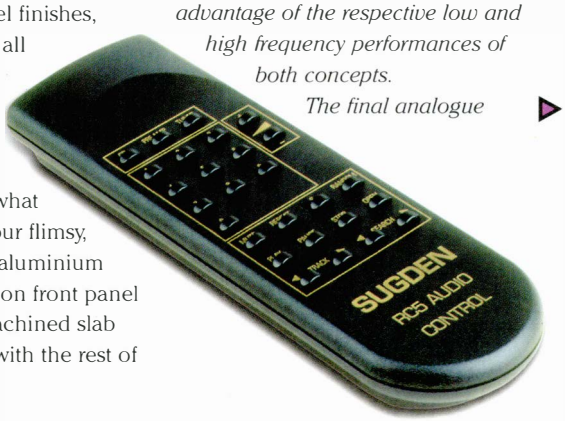
Visually, the front panel is simply, yet effectively styled. The drawer mechanism, situated on the right hand side is neat and tidy and the display panel is small but easily sufficient to give the required information (in green LEDs). The six control buttons (open, play, stop, previous, next and standby) are discrete, and the functions are well laid-out, both on the machine, and on the accompanying remote control unit.

The rear panel consists of a standard IEC mains supply socket, a power on/off switch (this allows the machine to be left permanently powered up and left in stand-by mode), and gold-plated output RCA sockets for both analogue and digital coax modes.

According to the brochure:

"... the machine uses a short loading version of the CDM12.1. Sugden remove the D to A conversion and digital output stages on the original unit, and the digital filtering, noise shaping, and analogue conversions are carried out on an original Sugden circuit board using the latest generation hybrid conversion IC. This DAC operates with 18 bit, 4 times over-sampling to develop the necessary wide dynamic range and high linearity required for good audio reproduction. It has unique bitstream and continuous calibration modes, which take advantage of the respective low and high frequency performances of both concepts.

The final analogue



output stage includes a low impedance voltage reference stage to improve stability and discrete component output buffer stages. The final output buffer stage has zero feedback, and incorporates discrete components to guarantee the smoothest musically reconstructed waveforms. There are no fewer than seven regulated power rails employed in the overall circuitry, ensuring minimal mutual inducement of spuriae from the digital elements to the analogue output section. The latter is kept perfectly clean of glitches and spikes, which can cause a brittle and grating musical performance."

So There!

From this (and with help from the 'Idiots Guide To Electronics') I deduced that Sugden have spent a fair bit of time tinkering about with the insides, and that I could look forward to a 'smooth-sounding' audition (no pun intended).

As the machine I was supplied with was brand new, I gave it a fairly long run-in period of two solid weeks continuous play before attempting to give it a serious listen. During this time I carried out one of my usual hi-tech user checks on the player to determine its normal running temperature. I didn't burn my hand, and from this I deduced that the machine only runs at 'nice and warm' on the scale of 'cold' to 'Ow Bugger!' (technical term) and therefore would be quite at home in my (and most people's) hi-fi environment.

So, on to the important bit - what does it sound like? I connected it up to my home system - Shearne Audio Phase 2 Integrated amplifier and Rogers LS3/5a loudspeakers using a Nordost Solar Wind interconnect between the CD player and the amplifier, and van den Hul CS122 speaker cable, let it warm up for a few hours, and sat down with my favourite CD's.

On opening the CD drawer, the impression of classy design was maintained. It operated quickly, smoothly, and almost silently. The assembly whisks the disc into the machine with a satisfying, well-engineered quality. First track up was 'Born To Be Blue' by Steve Miller on the 1988 album of the same name (Capitol CDP7 48303 2). Don't be fooled. This is Steve Miller taking a holiday from rock and showing an accomplished hand at being a cool jazz guitarist/vocalist. Forsaking the usual Steve Miller Band line-up, he appears here with Ben Sidran on keyboards, Billy Peterson on bass, and Gordy Knutson on drums. Milt Jackson supplies vibraphone on this particular track, and it's a classic. A silky, sexy, slow blues that's so laid back it's coming back the other way! And the Audition handles it very well. I was slightly 'wrong-footed' by the smoothness of the sound, then I began to notice the depth of soundstage. Cunning! A smooth jazz/blues track was an ideal first choice. The bass line of the track seemed to walk effortlessly through the air, and the vibes chimed hypnotically. The vocal line appeared dead centre-stage and anchored the song into an almost luxuriant realism.

The next choice was *'Music For Airports'* Brian Eno's ambient classic. Not the original electronic recording however, this particular performance is by real musicians in the form of the American group Bang On A Can (Pont Music/Polygram 536 847 2). Once again, the smoothness of the Audition seemed to accentuate the hypnotic qualities of the work. The opening bottom register piano chord was deep enough to dive into, and, though I'm not heavily into ambient music, I could not help but be impressed. Anyone who has read any of my previous literary output will be aware that I am the sort of person who much prefers a 'live' sound to a 'comfy, cuddly' one, but this CD player is different. Though rich and warm, the details were allowed to shine through and draw my attention into the music. Plenty of information without sounding obvious.

This feeling was reinforced on my next choice - 'The Downtown Lights' by The Blue Nile from the album *Hats* (Linn Records LKHCD2). Another hypnotic piece, though we're starting to get a bit heavier with an insistent bass line which drives the song along at a good pace. The same effect as the previous track. Soft edges on a solid foundation with top frequencies that shimmer rather than cut. The vocals were never quite swamped by the

slightly overdone synthetic strings. From the original song to the superb cover by Annie Lennox on the album *'Medusa'* (MCA 74321331632). In my opinion a far superior performance and production (by Steve Lipson). Sonically more dynamic with a deeper, cleaner bass line, and the string sound replaced by 'block' vocals. Again the Audition performed admirably, but though the soundstage was impressive, I felt that some of the music's 'bite' was lacking.

I decided to give the CD player a severe test with some awkward classical tests. I loaded one of my first choice test discs, Verdi's *Requiem* by the Orchestre Revolutionnaire et Romantique, and the Montiverdi Choir conducted by John Eliot Gardiner (Philips 442 142-2). Track2, 'Dies Irae' (God's Anger). This piece always sorts out the shortcomings of systems. It's not what I would call merely dynamic, it's more of a complete explosion of sound, which should burst into the room. Which it did - sort of. The arrival of the massed choir, orchestra, percussion, etc. gave the Audition a bit of a shock. I'm used to an almost physical impact, where as, with the Sugden, whilst it definitely happened, it was a bit over there rather than right here. To be fair, it was a stiff test, and the machine performed really well, especially considering its price. I had a faint suspicion that the really deep notes were struggling slightly, but the mid and upper frequencies came through loud and clear, and most important of all, the performance was convincing.

With a lot of the warmer sounding players on the market you can almost hear the missing information, lost in the comfy thickness that clogs the sound. The Audition isn't a bit like that. It's devoid of glare and any form of nastiness, which tends to set the sound away from you slightly. The music's all there, it's just that the Sugden doesn't fire it at you. That makes matching critical, and sleepy speakers, lazy amps or padded cables are all to be avoided. What you need is a clean, open system which will make the most of the player's considerable strengths.

One of the areas where this machine excels is with solo instruments, especially piano. I like Debussy. So does the Audition. I started out just to listen to one or two pieces from the *Suite Bergamasque* by Pascal Roge (*Debussy Piano Works*, Decca 443 021-2) and ended up listening to the whole thing - two CD's! This particular recording, though ADD, gives, in my opinion, one of the best interpretations of the music available. The playing style is paced to perfection, giving a superbly wistful air to pieces that other musicians always seem to hurry. The Audition certainly does its bit here. The space and depth of sound was uncanny, and with the lights out and supplied with a quantity of liquid refreshment, I happily spent two and a half hours of my life wrapped in sonic silk. Without effort, the Audition allowed the subtleties of the music waft around the room. The final item on the album is 'Reverie' (daydream), and believe me, I did! All the aspects of light and shade and the bits in between were quite beautifully reproduced.

So there it is. A British made CD player that looks good and performs well, at an affordable price point. Sugden have always been highly regarded as a manufacturer of quality, and the new Audition range offers a something that has been missing from British hi-fi - sound quality and a choice of superb finishes. It's about time too! OK, there's always Naim, Linn, Cyrus etc., but there's a bit of a difference in budget to contend with. In a price area that is already congested with black boxes from all quarters of the world, it's good to find something British which stands out from the crowd. I cannot find anything to seriously fault the Audition CD player. It looks and sounds very good. It's a bargain at $650.00, and if you like smooth, you'll love it.

TECHNICAL SPECIFICATIONS

Maximum Power Consumption	53W
Output	1.95V
Frequency Response 20Hz - 18kHz	-0.25dB
Signal to Noise	>80dB
Price	£649.00

Manufacturer:
Audio Synergy Ltd
Valley Works
Station Lane
Heckmondwike
West Yorkshire
WF16 0NF

Tel:
(44)(0)1924-406016
Fax:
(44)(0)1924-410069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Audiovector C1 Loudspeakers

by Pete Christie

What is it with the Danes? In the last issue I was enthusing about the Densen Beat B100, and metaphorically head-scratching over the possibility of an amp of such high quality being so affordable. Here I am again with another Nordic 'invader' from another highly respected source, at a surprisingly affordable price-point.

The highly respected source is Audiovector, whose loudspeakers have been highly regarded (and highly priced!) for some time, and until now, you would have had to fork out anything from $760 for the stand-mounted M1, to $5,900 for the top of the range tri-wire/tri-amp 6X, and all price-points in between, encompassed by superb quality, hand-made cabinet construction and sound to match.

I like small speakers. I like accuracy in sound reproduction - warts and all! I don't like having my favourite musical warts being surgically removed by well-intentioned equipment designers hell-bent on smoothing, softening, and sugaring the acoustic pill. So, when I was presented with a cardboard box containing a pair of Audiovector C1 stand mounting loudspeakers retailing at a mere $400, I was keen to discover if the renowned Audiovector sound quality would be maintained, or if it would be com-promised in an effort to present the brand to an altogether different market place.

The demonstration models I was supplied with were finished in a natural beech laminate veneer with a black, almost full-length grille with a simple silver logo above, and the immediate impression was the typically stylish design you might expect from a Scandinavian company - clean, sharp lines, and an air of minimalism. I found the contrast of natural beech and black grille exceedingly attractive, though alternative finishes are available in black, rosewood or cherry, so most people should be able to find something to fit in with their home décor. The cabinets themselves are made of something called NRFB, apparently an extremely stiff and inert material, and are internally braced and damped to minimise cabinet distortion and unwanted resonance. Their clean, sharp lines aesthetically complement most of the quality speaker stands currently available. Not too small, and not too big, and as an added bonus, Audiovector give a full five year warranty which, is transferable.

Removing the grille reveals a two-way design comprising of an almost full-width Vifa cellulose and carbon fibre bass unit surmounted by a 30mm fabric membrane tweeter. The four element crossover is mounted directly to the inside of the binding post assembly, and uses low-loss coils and plastic film capacitors. Nothing too radical here. However, it gets more interesting when you have a look round the back. Audiovector have come up with a rather novel rear port

behind the tweeter.
Apparently, according to Audiovector, this gives a low compression level to high frequency signals, thus resulting in a more relaxed sound, and means that the speakers can be located as close as 200mm (8") to a rear wall. High quality gold plated bi-wire binding posts, clearly labelled, round off a simple, yet elegant and stylish cabinet.

But we're not just talking Nordic furniture here are we? There is no point in being super-stylish if the sound quality doesn't match the price point is there? So what have the Audiovector people got to offer sonically? At $400.00 per pair, the

C1's are obviously a cut above 'budget' speakers, so I assembled a suitable pairing of the $400.00 Pioneer A300r Precision amplifier, and $460.00 PDS505 Precision CD Player connected with the $65.00 van den Hul 'Source' interconnect and $5.00 per metre Ortofon SPK200 bi-wire speaker cable. Siting the speakers was going to be interesting. I took the manufacturers word and mounted them on a pair of 600mm (24") Ixos 903 Deadrock stands and positioned them the requisite 8" from the rear wall with a slight toe-in so that the speakers were pointing at my shoulders. After a suitable warm-up period, I armed myself with a handful of my favourite CD's, and began the audition.

First up was a piece called 'Wishing Well' by Schonherz and Scott available on the album *One Night In Vienna* (Wyndham Hill 371060-1) which I have on a Wyndham Hill sampler CD (Wyndham Hill 371065-2). This is invariably my number one choice when faced with a new pair of speakers, as the introduction to the piece is a very high-frequency synthesiser passage followed by an almighty thumping bass note. Oh yes! If there is going to be a problem, this piece of music will certainly identify it within 25 seconds. The C1's responded admirably. The top notes shone through with startling clarity, and the bass notes burst into the room with consummate ease - clear, well defined and totally tonal. They certainly passed that test!

Moving to something more classical, I decided to confuse the system with some serious congestion, and the *Verdi Requiem*, John Eliot Gardiner conducting the Orchestre Revolutionnaire et Romantique, with the Monteverdi Choir (Philips 442.142.2) certainly fits that particular bill. Just for the record, the total complement of musicians and singers totals 22 Sopranos, 15 Altos, 16 Tenors, 16 Basses, and an orchestra of 84. That's a total of 153 souls, playing and singing their socks off with the necessary gusto. There is no way on God's earth that any pair of speakers of this size (or a lot bigger) can accurately reproduce this amount of sheer volume - all that is possible is that they can fool you into believing that they can. That makes the Audiovector C1's very good con artists! The Dies Irae came through with power, control and an extremely convincing sense of realism. The component parts of the piece were readily identifiable without being disjointed, and the overall 'picture' was remarkably cohesive.

From something massive to something minimal. Mary Chapin Carpenter and the album '*Stones In The Road*', Columbia 477679 2, track 9, 'John Doe No.24'. A simple melodic song with the majority of the sonic information lurking in the mid-range, and the only instrumentation comprising of an acoustic guitar accompanied by a superb soprano saxophone counter-melody (by Branford Marsalis). I was immediately impressed with the overall warmth and sympathetic handling of this extremely haunting piece, and I found the loudspeakers allowed the music to flow through them, rather than project the sound at me. Imaging was superb, and the manufacturers' claim that the drivers are accurately time-aligned proved to be well founded. Rhythm and tempo were maintained with each piece of music selected, and as the tests went on, the speakers continued to impress.

Now for a change in position. I began by pushing the speakers as close to the rear wall as I could. As I expected, the soundstage closed in dramatically, and I was subjected to quite a nasty bass 'boominess'. Moving the speakers slightly further out from the back wall in 1" steps and noting the effect proved extremely interesting.

At the magical 200mm (8") distance, the whole thing started to make sonic sense, and the soundstage returned to being quite acceptable. I continued to bring them further into the room, stopping at a maximum distance of 2m (72"). I concluded that in this particular room, the ideal distance seemed to be approximately 600mm (24"). This bears out my theory that all manufacturers' recommendations on loudspeaker location are best taken with an appropriately large pinch of salt, and as all rooms are different, the only way to identify the best location is by trial and error. I have often managed to totally transform people's hi-fi systems by simply moving the speakers around until the optimum position has been located. A typical reaction is "They can't stay there - they're right in the way of the door / window / dog / children etc." OK, you have to live with your hi-fi, but if you know where the speakers sound best, listen to them in that position. They can always be returned to a less obtrusive location during normal daily life!

A change of amplifier, CD player (and environment), was effected, as I took the C1's home and connected them up with my Shearne Audio Phase 2 integrated amplifier, using the same van den Hul Source interconnect, but now adding the better quality van den Hul CS122 speaker cable. As I use a Trichord Genesis CD player (the forerunner to the Pioneer Precision), the main difference was the extra 'clout' and depth that the amp would put into the speakers. The Ixos Deadrock speaker stands were replaced by my own stone stands of a lower height - 460mm (18"). Room size and seating position were similar.

I was not disappointed! The added power and improved soundstage of the Phase 2 heightened the imaging and extended both frequency extremes. In my own room, the distance to the rear wall is greater than in my previous test, a 'massive' 660mm (26").

After prolonged listening tests with all types of music, I found the Audiovector C1's dynamic, musical, and impressively detailed. They are a very "fast" speaker, and seem to revel in getting complex tonal variations out into the room with speed and accuracy. The clarity of the higher frequencies was impressive, and one of the best examples of this was the tambourine on the introduction to 'I Still Haven't Found What I'm Looking For' on U2's *The Joshua Tree* (Island CID U2 6). On most systems, this can seem recessed and a little dull. Not with these speakers! Crisp, clear and alive, and most of all, real! The whole pace of the track seemed to be improved with a new sense of rhythmic urgency, and this was further underlined with the superbly tight and controlled bass guitar line giving the recording a 'live' feel, which is how it should be, isn't it?

Being used to my faithful old Rogers LS3/5a's, which I have found I can depend on to get me as close to the sonic truth as anything, I did notice a slight over-emphasis in both the deep bass and in the higher treble, although this was not unpleasant. And after all, the analytical qualities of LS3/5a's don't necessarily appeal to everyone! The mid-range of the C1's however, remained remarkably honest and open, and this is where I felt they considerably out-perform several of their rivals in the $350.00 - $600.00 price range. Not a hint of any 'muddying' of information, whether it was a full-bodied orchestral piece or a simple solo clarinet. The C1's actually 'manage' the sounds superbly well. The treble, though bright, was controlled and sweet within the parameters of the system. The bass, though more pronounced than I was used to, never threatened to dominate the proceedings, and the phase coherence was such that the soundstage was natural and detailed.

A note of caution: after my own experiments, I would not advise using an overly bright combination of equipment, speaker cables and interconnects, as these speakers will deliver enough sparkling top end with more neutral cable pairings for most people. I found that using Nordost Solar Wind interconnects and speaker cable imparted a noticeable 'edginess' to the higher treble (violins, clarinets, cymbals, etc.) which I found could be uncomfortable at increased volume levels, especially with the Pioneer Precision amp/cd player pairing. However, with this minor detail addressed, I found the overall sound-stage was natural, wide, high and deep, and the immediate impression was that although the C1's are obviously a smallish, stand mounting speaker, nobody appears to have informed them of the fact. They are blissfully unaware of the limitations normally associated with small boxes of their size.

Hats off to Audiovector for supplying the market with such an affordable slice of stylish and musical excellence.

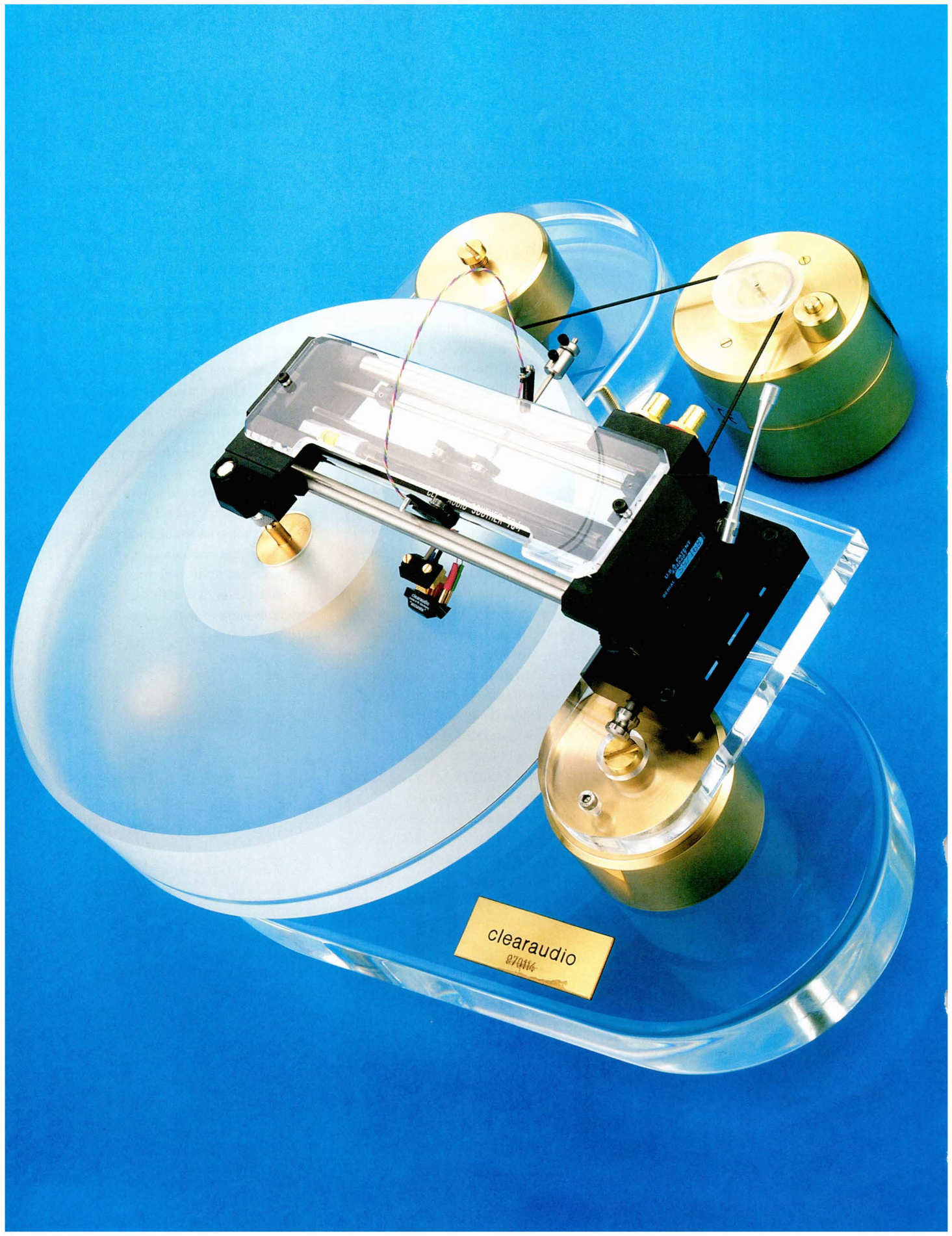
TECHNICAL SPECIFICATIONS

Audiovector C1 Loudspeakers

Size (W x H x D)	190 x 320 x 250mm
Impedance	8Ohms
Peak Power Handling	125 Watts
Frequency Response (+/-2dB)	52Hz-21kHz
Amplifier Requirements	20-100 Watts
Weight/pair (gross)	11Kg
Price	£400.00

Distributor

Glaive Ltd
Tel. (44(0)1622-664070
Fax. (44)(0)1622-664070
Web. www.glaive.co.uk


clearaudio

ClearAudio Reference Turntable and TQI Tonearm

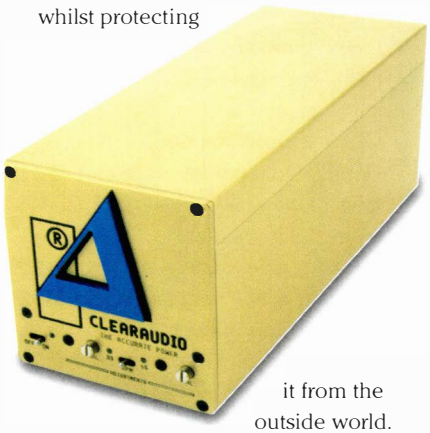
by Roy Gregory

For anybody brought up in the heyday of the LP12, a product whose hegemony was so complete that even the opposition took to creating variations on the theme, the ClearAudio Reference Turntable comes as something of a shock, while the TQI tone arm would be almost unrecognisable as such without the cartridge attached to it. In fact, the strikingly sculptural form of the ClearAudio player follows its function precisely. It simply identifies a rather different set of priorities for vinyl playback.

The biggest decision in any turntable design concerns the solution to a conundrum; how do you couple the motor closely enough to the platter for good speed stability whilst isolating the vibration it produces from the cartridge? Bear in mind that the cartridge is specifically designed to accurately measure tiny levels of vibrational energy, and you begin to appreciate the problem. One approach is to suspend the platter and tonearm on a sub-chassis which hopefully isolates them from the motor (and the outside world), and provide drive via a belt. The problem is that you then become dependent on the quality of the suspension itself to provide the compliance to isolate spurious energy, whilst, at the same time, it has to be stiff enough to allow a consistent belt tension and thus good speed stability. You could go to direct drive, but then you import a vibration source (unless you use the zero contact, air bearing motor from the $65000 Rockport Sirius III). You can begin to see why we ended up with CD!

The bottom line is that it's incredibly difficult to combine effective suspension with good speed stability. The alternative is to place the motor in a different structure which enjoys a constant relationship to the platter, and then worry about preventing its energy bleeding back through the connecting structure. In fact, a quick straw-poll of the serious turntables out there shows that this is now the preferred option.

The ClearAudio adopts the obvious approach of mass loading the motor with a huge brass cylinder. Now all they have to do is create a structure that will carry energy away from the stylus / groove interface whilst protecting



it from the outside world. Which brings us to that shape. The massive plexi-glass platter and inverted bearing constitute accepted practice, but why the boomerang base? Designer Peter Suchy cut a whole series of shapes out of high quality GS plexi-glass, each of equal mass, and investigated their resonant behaviour. The boomerang was the least able to support resonance, so that was the one he chose. The arm boards (the Reference will support two tonearms), are raised on solid brass bosses, and the feet are brass cones. Thus the structure depends on only two materials, which further helps the linear dissipation of energy.

That is the essence of the Reference Turntable; a simple structure carefully executed. However, you can enhance its performance significantly by providing an effective mechanical earth for the motor and platter assemblies. ClearAudio recommend the Silent Running support, or the A Cappella base, which was the option I chose. This is like a sophisticated Bright Star sand box, but the top plate is a damping pad / felt / lead / sandwich topped off with a ground Aluminium top surface. Aluminium pucks support the turntable, and their ground faces provide the optimum transfer of energy away from the structure and into the base itself. The whole kit and caboodle sits on sorbothane feet to prevent energy getting in from outside.

The other sensible step is to minimise the vibration produced by the motor in the first place. The Accurate Power Generator is a sophisticated external mains regeneration unit which supplies a cleaned up AC source at anything between 48 and 144 Hz. This allows the motor to run more smoothly, reducing vibration caused by asynchronous behaviour, and further increasing speed stability. Because ▶

it was designed for the three motor Master Reference turntable, it has three output sockets, so with the Reference, the spares can be used to drive other low current items like a phono stage, pre-amp, or even a CD player, although I wouldn't recommend simultaneous connection of any digital source with your turntable. The APG also allows you to switch between 33 and 45rpm, but if you connect other equipment then it's back to the stepped pulley I'm afraid.

The TQI tone arm is a development of the Souther Tri-Quartz (ClearAudio bought the company when Lou Souther retired). It is a passive linear tracking design which uses the side force on the stylus to drag a short tonearm across the record. The armtube itself is pivoted below a tiny aluminium cart whose wheels run on parallel quartz crystal rails. The idea is simplicity itself, but requires precision engineering to make it work properly. The I in the TQI designation stands for 'improved', and refers to better tolerances on the quartz rails, a substantial aluminium hinge block which replaces the plastic original, and the use of Discovery signal cables (ClearAudio also provided a Discovery phono - phono arm cable with the review 'table) . Older arms can be brought up to current spec.

The incredibly short tonearm is designed to minimise lateral moving mass, critical to good tracking performance. Theoretically it can lead to exaggerated warp wow as the stylus accelerates up hill and slows down dale, but I never had a problem in over six months of use. Setting overhang and azimuth are as simple as sliding and rotating the armtube in its clamp, while the aluminium cup which can be dropped over the spindle is an in-built check for tangency. Start with the arm dropped onto the spindle, and clamp the arm board. Then simply raise it to the correct height. The critical factors in achieving optimum performance are the angle of the arm rails, tracking force, and cable dressing. The arm has a built in spirit level and

this should have a slight down angle (about a third of the bubble) in order to help the cart overcome the minimal friction between its wheels and the rails. This will impart a slight change in VTA across the record, and first / last track comparisons will reveal it, but set VTA in the middle of the groove area, and the effect is minimal.

Accurate tracking force is central to the performance of the arm, and not just because it effects the cartridge. The cable which runs from the cartridge tags to the phono output sockets is clamped to the front of the cart and the back of the arm 'bridge'. This needs to be in a nice even curve so as not to exert any side force on the cart. But the cartridge is free to move relative to the cart (because of the tonearm pivot) so the short length of cable from the cart to the cartridge must also be carefully dressed, otherwise it interferes with the downforce. Repeatable tracking force values across the record's width are the surest sign that cable dressing is spot on, and you really need an electronic stylus balance to get the arm just so. Incidentally, the wooden bodied Sigma and Insider Reference cartridges are designed for use without the counterweights(!), eliminating reflected energy from that source too.

Set up and operation of the TQI seems totally alien at first, but once you forget your ingrained behavioural prejudices it soon becomes second nature. Once you get it right, the arm is perfectly stable in operation, and requires no further attention. This is a truly trouble free product. It's not even a dust trap. Incremental adjustments of VTA are a pig, but no worse than a lot of pivoted arms. The only thing you have to do is make sure that you return the cartridge to its parked position before raising the arm to remove a record. Even if you forget, the worst that can happen is that you end up checking azimuth and overhang, but the long slide and thunk as your cartridge takes the plunge is no good for the heart.

Sonically, the ClearAudio Reference is as distinctive as it looks. The first thing that strikes you is the absolute solidity of the soundstage. Even without the APG, there is no tendency for instruments or voices to wander. Add the external power supply and the soundstage just locks in place, with depth and height definition improving. At the beginning of *Julian Bream In Concert* (RCA SB6646) he spends a few minutes introducing the programme to the audience. His distinctive nasal voice is almost perfectly alive with the ClearAudio. You can place him in space, with the audience in front of him and the open stage behind. His shifts on the seat are betrayed by tiny noises, and the turn of his head, and that particular, dry humour is unmistakable. But this goes way beyond simple dimensionality.

There is a clean and uncluttered neutrality to the sound, devoid of exaggeration. Most turntables exhibit excessive warmth or weight from the lower mid down, and whilst it can have an attractive, almost cuddly result, it has nothing to do with the sound of

live music. Instead, it has to do with non-linearities in the structure of those products, concentrating energy at specific frequencies. A designer can shape that weight to his advantage, giving his table an exaggerated sense of power and substance, but it isn't real. The Reference has none of this cloying, sluggish weight padding its bass or clogging its midband. Tiny shifts in level as someone speaks or plays an

instrument are clearly mapped, and it is this quality of transparency and micro dynamic discrimination that brings Julian Bream to life. Each accent and inflection of his voice is faithfully recreated.

At the same time, the speed stability of the deck and phase coherence of the parallel tracking arm mean that even the most complex and splintered rhythms remain clear, precise and unconfused. The opening notes of the Dowland spring from the soundstage, bold and confident, burnished and beautifully shaped. The deck's focus and rhythmic integrity are major contributors to that natural sense of life. Parallel tracking arms have a sense of timing and spatial cohesion which escapes every pivoted arm I've used, and which, for me, justifies their complexity and mechanical compromises. The Reference turntable builds on and extends those qualities. The result is a record player which is at once dynamic and stable, neutral and coherent. But above all, it is natural and unforced.

The ability to let music happen at its own pace is often overlooked. That warmth and weight that infests the nether regions of so many decks is the result of resonant modes, which, by their very nature take time to develop. Thus they, and their harmonics, are outside the rhythmic pattern of the notes being played. And because they gather energy from a whole range of frequencies and translate it (or concentrate it) in specific bands, they have sufficient power to impose their own pattern on the music. Yes, a turntable should make your toes tap, but when it's the music that provides the impetus, rather than the player itself, it is at once far more powerful and more relaxed. The rhythm becomes a framework, with the music built around it. The musicians can use it like a climbing frame, simply as a structure, or as an external framework within which to work. This expressive freedom is essential to all forms of music. It is at the heart of hi-fi performance, and yet so many systems choke and limit it. The Reference / TQI revels in revealing this inner aspect of the music.

I've only talked about solo lute, and I don't want to give the impression that the Reference is all delicacy and no muscle. The turntable's character, quick, clean and open, benefits all types of music. Bass is fast and agile, rather than ponderous, and while it will probably be a shade lighter than you expect, it has plenty of weight for realism, which combined with its speed can really drive music along. The bass drum on Testament of Freedom (Reference Recordings RR 49) detonates with impressive body, but each beat also has superb texture, and it floats in the acoustic, rather than trundling across the floor. Rock and pop are just as good, with impressive wallop combined with copious information and subtlety, while voices are downright spooky. Fans of female vocals should form an orderly queue.

The widest range dynamics challenge the deck, but fortunately, ClearAudio's own cartridges excel in this respect, so that a complete ClearAudio front end will satisfy everyone but the complete megalomaniac. I've used a whole slew of cartridges in the TQI, and all have worked fine. But it does like the ClearAudios.

Unfortunately, this is such a complex product, sonically and mechanically that I have run out of space. I will return to the A Cappella platform and the APG later. Suffice to say, I wouldn't have used the Reference / TQI combination for so long unless they were both tractable and musically rewarding. Understated, unfailingly natural and wide open, I could (and have) happily lived with it. Living without it might not be so easy.

TECHNICAL SPECIFICATIONS

ClearAudio Reference Turntable and TQI Tone arm

Speeds	33 and 45rpm	
	Electronically variable with APG	

Tonearm Effective Mass

Cartridge Weights 4.5g upwards

Dimensions (W x H x D)

Prices	Reference Turntable	£3500
	TQI Tonearm	£1750
	APG Power Supply	£1000

Packaging consisting of Reference T/T, TQI and ClearAudio Signature cartridge (£1500) can be brought for £6500

Distributor

Absolute Analogue

Tel. (44)(0)1425-654488

Fax. (44)(0)1425-654400

Manufacturer

ClearAudio Electronic Gmbh

e-mail. clearaudio@t-online.de

Transfiguration spirit

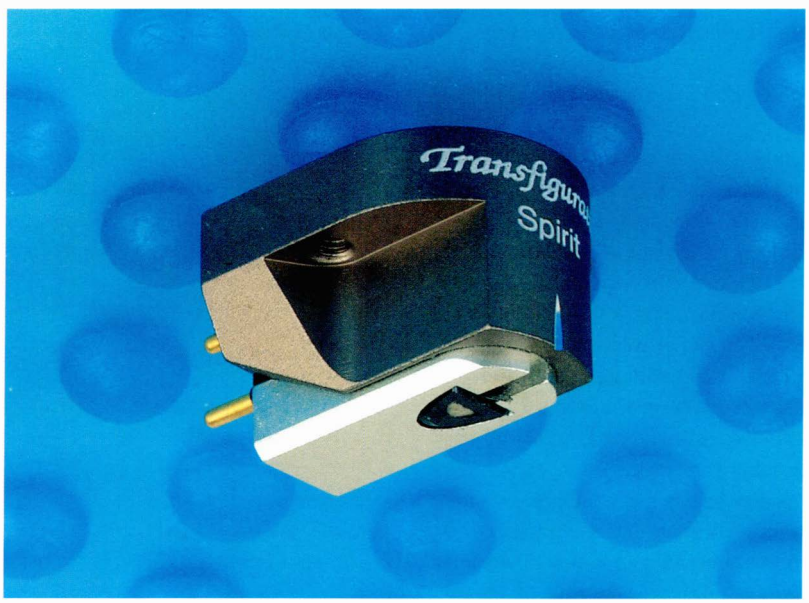
The Cartridge For Frustrated Conductors Everywhere.

by Roy Gregory

Immutable Music, the manufacturers of Transfiguration cartridges may have been around for nearly ten years, but in global terms they are, along with Lyra, the new kids on the cartridge block. Established companies like Koetsu, ClearAudio and Ortofon received a nasty shock when the two young Turks burst onto the scene with products which didn't just match the existing standards, but set a new pace altogether. The Clavis and Transfiguration AF1suddenly became the products to beat. Several years down the road, and the competition have responded, but the new boys continue to hold their own.

The Transfiguration Spirit is Immutable's entry into the all important £1000 low output moving-coil market (there is also a high output model called the Esprit). It is built into a bronze anodised, milled aluminium body which is threaded for mounting bolts, and which it has inherited from the more expensive Temper Supreme. It also shares the patented yoke-less construction and ring magnet that distinguishes all the Immutable Music products. The result is a solid rather than flashy cartridge, looking much more businesslike than exotic crystal bodied designs. It's an impression that matches the cartridge's performance perfectly.

All the transfiguration cartridges possess a strong family sound, although it has far more to do with the way they actually present the music, than any particular tonal or sonic aberration. Indeed, Immutable's claims for overall tonal neutrality are well founded. Listening to the Spirit for the first time, you could be forgiven for thinking that it errs on the side of a rosy warmth. But listen a little longer and you'll realise that there's no fattening of the mid-bass or rolling of the treble. The cartridge is totally even handed, top to bottom, and cymbals in particular are produced with a sense of energy and definition which makes a lot of other cartridges sound thin and splashy. In fact, what you are hearing is the absence of the edginess and glare which afflicts so many 'high definition' cartridges (and CD players), and which is so all pervasive that it is in danger of becoming a hi-fi norm. This lack of an obvious character or flashy performance are top of Immutable's list of design aims.



And while this stands testimony to the Spirit's natural tonal balance, it's also a function of it's outstanding tracking performance. Whether you're playing a long LP side with shallow grooves, or a massive orchestral climax, the Transfiguration simply sails through with none of that edge of the seat insecurity that so often accompanies journeys to the limits of LP performance, and into the realms of listening fatigue.

Combine this sense of stability with the family tendency toward deep but narrow soundstageing, and the overall result is a solid and incredibly coherent musical perspective. The Transfiguration presents both a

The Technical Bits

The Spirit's milled body might seem like a God-send when it comes to set-up time. At least compared to the spherical housing used on Transfiguration's earlier offerings. In fact, it's a case of swings and roundabouts. The alloy brick is certainly easier to handle than the aniseed ball, but it also hides the short cantilever from clear view, making precise alignment a tricky business. And be warned, the stylus guard is an extremely tight fit, so if you install the cartridge with it in place, be real careful when you come to remove it, or it may have precisely the opposite to its intended effect!

The original Transfiguration was seriously short - around 12.5mm - which necessitated the use of a spacer with tapered tube arms like the SMEs. The Spirit is taller, but still on the Alan Ladd side of average. Correct alignment in the SME 5 left the arm tube close enough to the record edge on inner tracks for rim warps to cause concern, so make sure you check this during set-up. Otherwise, arm matching was trouble free, neither the 12" JMW or ClearAudio Souther TQ1 suffered any wobbles, the Spirit performing faultlessly in both.

Output is healthy and loading is fine at the popular 100ohm value. Tracking should be set at 2g, but you'll need to set the bias by ear, as even slight adjustments around the 2g mark made obvious differences to the focus and transparency of the sound. Finally, the Spirit is the most VTA sensitive cartridge I have come across. Seemingly insignificant changes in arm height can have a huge impact on the sound quality, and especially the sense of life. Precise VTA adjustment is a must, and you should take that into account when considering arm matching.

band and its music as a single, intimately mated mass, a oneness that goes beyond simple ensemble playing. The expression 'A place for everything and everything in its place' could have been coined for this cartridge! The result is music with a real sense of propulsion and purpose. On studio rock with its pan-potted soundstages and dodgy pressings, it's little short of revelatory. Driving R and B rhythms certainly are, and drums have real kick and snap. Get the set-up just so and the Spirit is capable of explosive dynamics without ever losing control. Put on something inspirational and you'd better draw the curtains, because you are going to suffer a serious attack of the air guitars (or conductors baton, depending on your taste in music!).I should go into specific detail and musical examples, but that would detract from the Spirit's greatest strength, its holistic nature.

But what about shortcomings? Aside from the soundstage which rarely steps much beyond the speakers, the other area in which the Spirit comes up short is in terms of absolute resolution. Listen to the Temper Supreme, which shares its overall sound, and you can hear beyond what a musician is playing, to the why he is actually playing it. It simply gives you greater insight at the micro vibrational level. At a price!

Back in its own ballpark, the Spirit offers an attractive compromise. Sure, you can get better separation, and deeper bass, but no other cartridge I've tried at this price can match the Transfiguration's sense of musical coherence, impact and involvement. The togetherness of its sound thrives on 'performance' and it extracts every last bit of chemistry from a recording. At the same time its exceptional tracking, natural balance, and emphasis on the architecture of the music rather than its minutiae, make it the perfect choice for music lovers. Put simply, the Spirit is going to make more out of more of your records. It will caress them rather than sticking them under a spotlight. And because of that, you will find yourself listening to more records for longer. And you can't ask for more than that.

TECHNICAL SPECIFICATIONS

Output Level	0.4mV
Frequency Response	10 - 20,000Hz (+1.5dB)
Channel Balance	<0.5dB at 1kHz
Channel Separation	>27dB, 200Hz - 10kHz
Compliance	12cu
Impedance	10ohms
Recommended Load	100ohms
Stylus Type	PA
Cantilever	Boron
Playing Weight	2.0grams
Height	15mm
Weight	7.8grams
Price	£950.00

(Manufacturer's figures)

Distributed in the UK by:

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Short and Sweet

The Dynavector DV17D2 - a cartridge with a long history and a very short cantilever.

by Roy Gregory

Anyone with a long memory could be forgiven for thinking that the Dynavector Diamond cartridges have been around for ever. In fact it's 'only' been 19 years, a commendable life span for any piece of hi-fi. Naturally enough, the design has evolved in that time, and the current cartridge is both better and considerably cheaper than the original Karat, despite being outwardly identical. When the 17D2 first appeared it wasn't just its lineage

that was remarkable, but the consistent response of everyone who heard it. Quick and open, but a little thin and bass shy sums up the consensus.

Which puzzled importer John Burns. Used with Dynavector's own head amp in his system, he had plenty of body and weight. When he discussed this with Dynavector's owner, Professor Tominari, it became clear that the PE1 phono stage he was using employed novel techniques to increase the voltage drawn from the cartridge. Given the 17D2's ruinously low output of 0.15mV, this was clearly crucial to what he was hearing. Unfortunately, the PE1 is no longer in production, although a few remain, and no other head amp used its technology. Another solution had to be found. Well, if the average phono stage can't handle the low output level, why not increase it? Extra windings on the coils might make the cartridge's job harder, but would you gain more than you lost by making the head amp's task easier? With these questions in mind , John ordered a new version of the 17D2 with slightly higher output. That's the cartridge I'm listening to as I write this.

There's no change in designation or badging on the new cartridge, but you only need to hear it to realise that it is an entirely different beast from its predecessors. And yet so much remains the same. The defining feature of all the Karat Diamond cartridges has been the 1.7mm solid diamond cantilever, so short that it protrudes from the cartridge body at 30 degrees to the horizontal rather than the more normal 20 or so. Dynavector employ this incredibly short and stiff cantilever to prevent the dispersion of leading edge energy and information. And no one ever accused the Karats of wanting attack or detail. The current cartridge uses a modern fine-line Micro Reach stylus, just to make sure.

I listened to the new 17D2 in the Naim Aro (which allowed quick comparisons with the original) mounted on an Armageddon LP12, and a ClearAudio Evolution turntable. Phono stages were the Pass Aleph-Ono, a Naim 82 ('S' boards - not 'K'), and the Michell Iso. Output is still on the low side. Less for instance than the Clavis (0.25mV). The printed book claims 0.23mV but the individual trace lists 0.2mV, and I would go with the latter. The minute degree of clearance between record and cartridge body could easily give problems on warped records. In practice I never suffered at all, even in the very short ClearAudio arm which exaggerates the problem.

Comparisons with the original version were quickly over. The new cartridge loses nothing but adds significant presence and body to the midrange, as well as welcome weight and power in the bass. The 17D2 still doesn't have the extension and authority of a cartridge like the ClearAudio Signature, but then it's a third of the price, and that's not its strong suit anyway. Where the 17 scores is in its timing integrity, keeping notes and players in time with each other. Arturo Delmoni and Meg Bachman Vas are in perfect accord ▷

The Technical Bits

The Dynavector DV17D2 is a physically small and light cartridge, and that can impose certain constraints on its employment. The most obvious of these are the cartridge's low mass and low height. You will need to check that your tonearm can balance out a 5.3g cartridge, and arms with very thick tubes like the SME or Wilson-Benesch may risk fouling the record edge as they play inner bands. This problem is exacerbated by the fact that the cartridge sounds best slightly tail down. Recommended tracking force is 2.0g and that proved to be spot on. Make sure you use the supplied mounted hardware, and don't be tempted to over tighten the screws. You'll risk stripping the threaded body. Despite the tiny cantilever, alignment proved straight forward. Just use the square nose as a guide before you start sighting on the cantilever itself. Once you've got it sorted, treat the cantilever with care. If you start bouncing it off records it's going to snap. Oh, and it's nice to see a manufacturer supply spare mounting screws, headshell wires and a cleaning brush. The 17D2 runs quiet in the groove and is kind to surface noise, but it regularly collects a mini Axminster on its travels.

As well as its short cantilever, the Dynavector uses two patented techniques, the Flux Damper and Soft Magnetism, to avoid fluctuations in the flux density in the generator system. These are claimed to reduce the characteristic high frequency rise and edginess associated with moving coil designs. Experience with the earlier XX-1L (where the flux damper could be defeated), and the evidence of the 17D2 suggest that they have a point.

on *Songs My Mother Taught Me.* The almost schizophrenic changes in tempo on Brahms' *Hungarian Dance No 1,* never trip up the performers or the Dynavector. Great ensemble playing by musicians who can almost read each other's minds is what separates great performances (classical, rock or jazz) from the mundane. The 17 never fudges the issue. It is always musically involving. More and more I found myself playing whole sides when "reviewer mode" only required half a track.

The Dynavector places images well, although soundstages lack volume and boundaries. Probably the less than stentorian bass extension. But what is exceptional is the top end air and detail. Cymbals are beautifully clean and devoid of spit. The plethora of percussion on *La Folia* is held separate and distinct, whilst its interventions are bang on time. The piping quality of Nanci Griffiths' voice was spot on too.

The 17's character really comes to the fore on albums like Steve Earle's *Guitar Town.* This ain't a great pressing and too many cartridges make it sound splashy and disjointed. The Dynavector latches onto the trip-hammer beat and sorts out the busy mixes around it. The cymbals are there, where and when they should be, accenting the beat rather than fizzing away on a different plane. It treads a fine line between the thin but clear, and the solid but stodgy. Earle's abrasive voice is full of character rather than teetering on the edge of irritating. The result is a musical roller coaster ride that just refuses to stop. Just the way it should be.

At $449 this latest DV17D2 is a steal. Whilst it may not plumb the depths, nor does anything else at this price. At least not with this much musical integrity. I didn't have a chance to compare it directly to the $550 ClearAudio Sigma, but these two join the Lyra Lydian Beta on the bottom rung of the high end ladder. Its low mass and sonic character make the Dynavector a perfect match for the Aro, an arm in which it performs way beyond its price. I'm sure John would say the same about the Well Tempered. And I'd be inclined to believe him. He seems to know a thing or two!

TECHNICAL SPECIFICATIONS

Output Level	0.23mV
Frequency Response	20 - 100,000Hz
Channel Balance	1dB (1kHz)
Channel Separation	25dB (1kHz)
Compliance	15cu
Impedance	38ohms
Recommended Load	100ohms
Stylus	Micro Reach
Cantilever	Solid Diamond
Playing Weight	2.0grams
Height	17.5mm
Weight	5.3grams
Price	£449.00

(Manufacturer's figures)

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Traxdata Traxaudio 900 Compact Disc Recorder

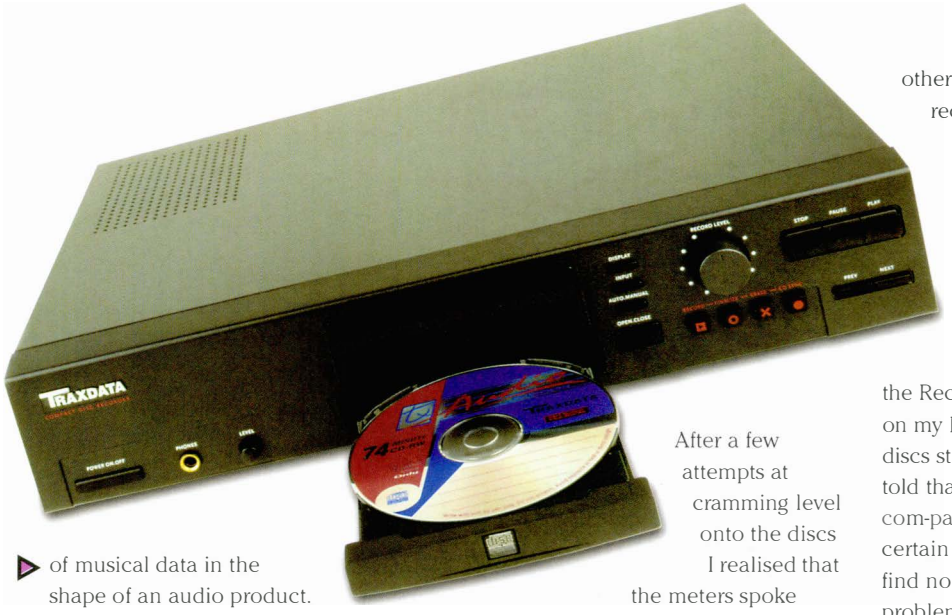
by Chris Thomas

Across the country, sitting unloved, and mostly unused and gathering dust, are hi-fi's most unexciting components, the cassette decks. They have never really had a place in any decent quality system, and despite feverish attempts from Nakamichi, the words silk purses and sows ears still come to mind. The concept from which they grew was a simple office voice recorder. Tiny magnetic tape moving ponderously slowly over a crude head was never the stuff of audio nirvana, and I guess most of us just use them for making cassettes for the car.

The advent of digital recording bought all kinds of promise for really top quality home recording. The early sales pitch was encouraging. The logic was hard to fault. Reduce music to a series of numbers then store those numbers on a disc so whenever you wanted a copy, sorry, a clone of that music, just copy the numbers across to another disc or storage medium and there you have it. First we had Digital Audio Tape (DAT) and then Digital Audio Cassette (DAC). The public though, rejected both of these despite the undoubted attractions they offered. DAC tried to be all things to all men by allowing the playback of traditional analogue cassettes plus digital recording, though neither sounded particularly good.

DAT was more successful in that it was picked up on by musicians, who thought it was wonderful. Musicians though are known to be notoriously undemanding when it comes to sound quality, which is why they have producers and engineers to the nasty work of actually recording their music. And as most studios, already obsessed with the Great Digital God had leapt in feet-first when DAT became available, that was the format that the days work was generally copied to, whereas before it had always been dumped to the humble cassette. After all, everybody has a cassette player of some description. So the muso's bought their own DAT machine, usually Sony's nasty little DATMAN . The public though did not want to know, and so home recording has been left to the cassette machine or, in extreme cases, to the reel-to-reel which is by far the best sounding of all the options but brings its own baggage in terms of expense and general hassle. In other words, you have to be a bit of a home recording nut to want to use a reel-to-reel tape recorder. It should be remembered here that I am talking primarily about home recording in terms of pre-recorded music and voice, as opposed to making your own recordings of musicians. This is a completely different ballpark and one to which we will be returning in a future issue.

With the advent of the recordable CD things are looking up. With music reduced to 'data' it is now possible to make higher quality recordings from all the usual sources for use in any Compact Disc player be it in the car or at home. Or is it? Traxdata, as the name suggests are best known for their CD products in the computing world but their Traxaudio 900 is an attempt to market the transfer and storage



of musical data in the shape of an audio product.

Made in Austria, the 900 is about as uninspiring looking piece of equipment as any cassette recorder ever was. Build quality, design and finish are also distinctly average. And the ergonomics, important when making recordings, are none too clever either. It can be used as a straight CD player, or can accept both analogue and digital sources as inputs to record. The rear layout shows regular phono socket connections for both analogue and digital inputs, plus an optical connection for external digital sources. Controls are, to a large extent, the same as found on most CD players, and for those replay-only machines the display section would be perfectly adequate. But recording brings its own requirements, and one of those is that you have to set a recording level. For this you need a decent sized metering display and fast meters, otherwise you will never get an accurate reading. The Traxaudio 900 has a generally inadequate display. It is much too small and the metering is much too slow. My desire to squeeze as much level on the disc as possible is more than likely a legacy of years spent up all-night with Revox tape recorders. Filling the tape with signal meant less room for hiss, the enemy of all analogue tape enthusiasts. Filling a CD with signal gives it a better sound, with more body. After a few attempts at cramming level onto the discs I realised that the meters spoke with forked tongue. Far better to back off a little, though I was surprised at how softly this machine 'clipped'. This particular brand of digital distortion was far more benign than I had imagined.

Making a recording is a straightforward process. You have a choice of two types of disc, the CD recordable and the CD rewritable though the recording process is the same for both. The Recordable is a one-shot deal while the Rewritable can be used over and over again until you fix it in order to play it in other machines. In many ways it is the same process as a recording made on a cassette deck. Push the record button and set the levels. At this stage you will need to decide whether you are going to leave track numbering to the machine or decide to do it manually. If you are recording from another Compact Disc you can safely leave it to the Traxaudio, but if you are copying from vinyl you would be well advised to enter these manually as the machine will not always recognise the spaces between tracks as zero signals (all that vinyl noise), and this will give you locational difficulties later. Then simply push the Play button. After the recording is complete the discs will replay as normal when using the Traxaudio 900, but if you want to play them on any other machine, except another CD recorder, then you will have to Finalize them, a simple process that takes about 2 minutes during which time various bits of information are written to a section of the disc to be read by another CD player. My problem here was that only the Recordable discs actually played on my Naim CD player. The Rewritable discs stubbornly refused to rotate. I am told that this is not unheard of and com-patibility between these discs and certain machines is uncertain. I can find no mention of this potential problem in the manual though and I would certainly be more than a little put out if I had bought the machine only to discover this later. Make sure you check this out if you are in the market for one of these machines.

The recording results were reasonable though you would not need recourse to the original disc to know that there is a noticeable drop in detail and a fair bit of compression going on. A couple of tips though. Site the CDR on a separate surface to the rest of the equipment, use decent interconnects and record with your loudspeakers off, this will help to avoid any microphony and your recordings will sound a little cleaner and more dynamic.

The Traxaudio CDR is a budget machine. It both looks and feels like one. It makes decent recordings, but is not of sufficient quality to really interest an enthusiast. For making compilations and music for the car I think it is fine, if only for its lack of tape hiss.

Prices of this machine, and of the blank discs, vary wildly, and there are several packages on offer, so shop around. Alternatively, If you really want to make CD recordings, and own a PC, you could check out one of the many CD R products available, including those from Traxdata.

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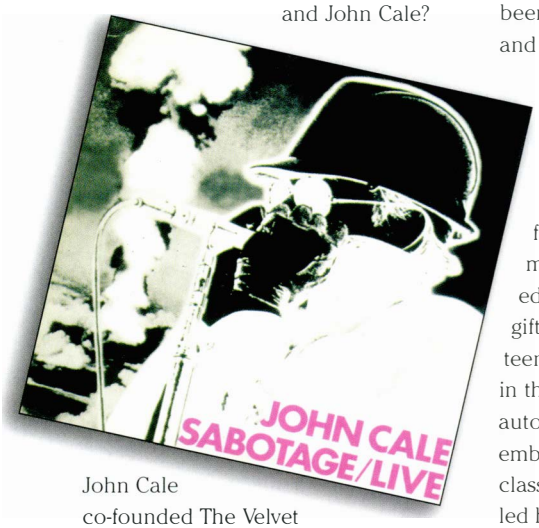
John Cale

by Jon Maple

In this new dawn of its National Assembly, Wales has a need to look to her great historical heroes for inspiration. Heroes like Prince Llywlyn ap Gruffydd, Owen Glendower and John Cale. What inspiration they provide. Llywelyn was the last native Prince of Wales (killed at Builth in 1282 fact fans), Owen G led the 15th century revolt against the English tyrants and John Cale?



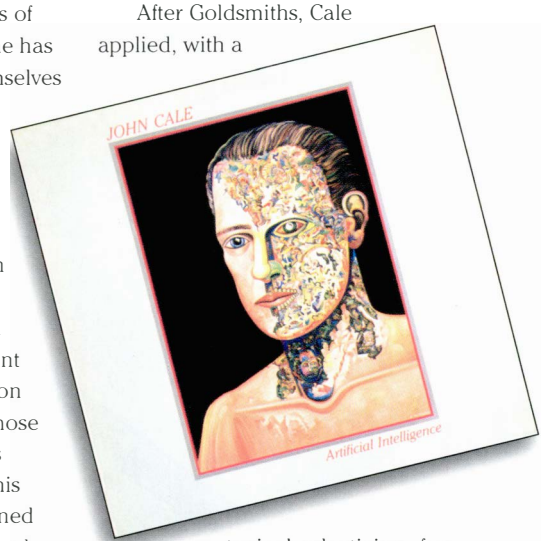
John Cale co-founded The Velvet Underground (which, to an English pop critic at least, is easily the most significant achievement of the three.)

Wales has thrown up a veritable eisteddfod of pop talent over the years, from Tom Jones to Cerys Matthews, from Man to Gorky's Zygotic Mynci, and what would we do without the Manic Street Preachers? Yet for all their virtues none of these figures have (a) asked the question "What's Welsh for Zen?" or (b) Influenced the course of pop history with the aid of a viola.

Perhaps Cale's greatest achievement is that his influence has been exponential. Through his work with The Velvets, and later via a series of collaborations in a long career, he has influenced artists who have themselves been hugely influential - people of the calibre and diversity of Terry Riley, Can, Patti Smith, Nico, Iggy Pop, Brian Eno and Jonathan Richman. Cale has been both a source of inspiration and its catalyst.

John Cale was born on March 9, 1942 in Garnant on the foothills of the Brecon Beacons, in a household whose first language was Welsh. His father was a coal miner and his mother a radical and enlightened educationalist. The boy's musica l gifts were obvious and he spent his teenage years honing them as violist in the Welsh Youth Orchestra. An avid auto-didact in many subjects, he embarked on a course of voracious classical music self-education which led him to an abiding interest in the American avant-garde. In 1960 he moved to East London to attend Goldsmith College. While a student - when he was supposed to be engaged in such pursuits as writing a history of the polyphonic Mass or taking composition classes from Sir Humphrey Searle - he found himself corresponding with Aaron Copland and John Cage. "I decided to go to college in London only as a step towards New York. I could see very little worth exploring in Britain, but in London, I thought, I would find out how to get to New York." he wrote.

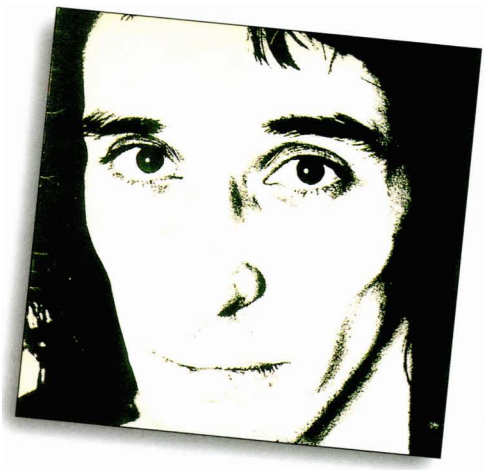
After Goldsmiths, Cale applied, with a



typical eclecticism, for places at Yale, Moscow University and The Berkshire Music Center in Tanglewood, Massachusetts. After an interview (conducted by Aaron Copland in, for some reason, a London restaurant) he found that he had won a Leonard Bernstein scholarship to a summer school at

Tanglewood. The deal included the invaluable 'green card' from US immigration allowing him to live and work there indefinitely.

At Tanglewood his tutor was Yannis Xenakis and the Franco Greek composer proved to be an important reference. Xanakis' music was fundamentally about mathematics - "Probability theory was the basis on which he wrote his



music. His classes were on extrapolating the probability of a B flat happening in the next three or four bars." His term for this alternative school of composition through serialism was 'stochastic' music. "There were no emotions, it was gymnastic, physically difficult to play".

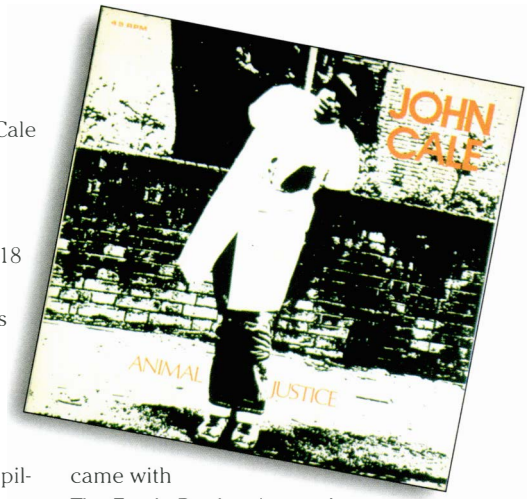
After high summer at Tanglewood, Cale eventually reached his goal of New York City where he soon came within the ambit of John Cage.

Between 9 and 10 September 1963 Cale was one of a relay team of pianists under Cage's direction who played Erik Satie's *Vexations* live at The Pocket Theatre on Third Avenue, in 18 hours and 40 minutes. As Satie had suggested, they played the 180 notes of the 80-second motif 840 times.

La Monte Young - who also inspired Steve Reich and Phillip Glass - was another of Cale's early New York influences. He made a pilgrimage to Young's place on the Lower East Side where, "he was so flattered that a classical student had come all the way from Wales to sit at his feet" that he was immediately invited to play with Young's group The Theatre of Eternal Music. Within that group, Cale and Tony Conrad formed The Dream Syndicate. The idea was to sustain notes for hours at a time, using amplified voices, viola and

violin. At this time Cale had his first encounter with marijuana (La Monte was apparently dealing pounds of the stuff) and its use probably helped motivate the 'scientific and mystical' fascination for sound in their sustained meditative drones. With a pick-up, and guitar strings on a filed-down bridge, Cale achieved a drone "that sounded like a jet-engine", a drone which would later be used to great effect on The Velvet Underground's first two albums.

John Cale's pop music crossroads

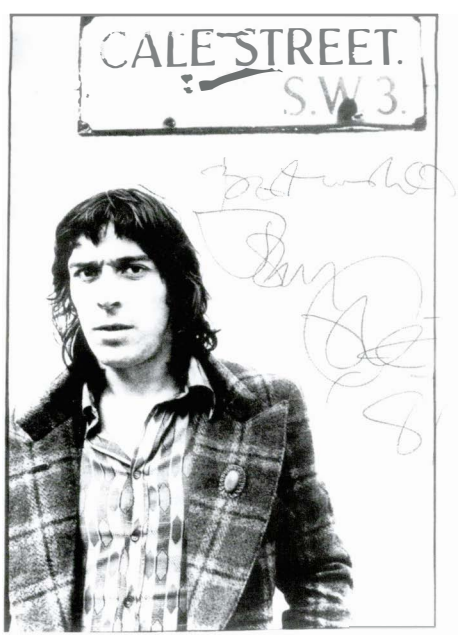


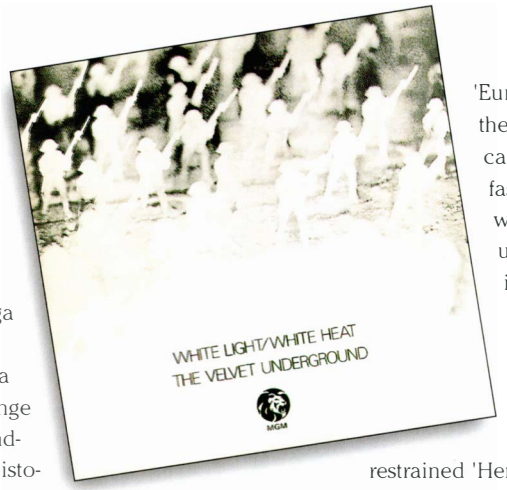
came with The Everly Brothers' record 'Dream' which he would "listen to ad nauseam to hear the 'difference tones' in the opening bars". Confused, he wondered how The Everlys, in Nashville, could have known about arcane theories of sound. Then came the excitement generated by the coming of The Beatles and The Stones, and a future in the avant-garde began to look rather dim.

Cale was introduced to Lou Reed, a 22 year old songwriter at Pickwick Records in Long Island, by a Pickwick producer (who mistook him for a pop musician on account of his long hair). They formed a 'fictional' band called The Primitives to promote a Lou Reed single The Ostrich, which was a parody of the Locomotion-style dance craze songs then fashionable. The record bombed, but the experience brought about the Reed-Cale connection, and the creative pyrotechnics and heavy drug use of the Velvets years began. Courtesy of La Monte Young, pot, acid, downers and Benzedrine had all been a regular feature of Cale's diet, but now heroin was added to the list. "The only things we had in common" he said of his relationship with Reed, "were drugs and an obsession with risk taking".

The stated aims of The Velvet Underground - named after an S&M novel - were to be the best band in the world, to never repeat themselves, and to really upset people. Initially the last the these aims was the most obviously achieved. With Sterling Morrison on

lead guitar and Moe Tucker playing an African beat apparently inspired by both the Nigerian virtuoso Babatunde Olatunji and our own Charlie Watts, they played their first show. It was a High School Hop supporting The Myddle Class. The Velvets were reportedly so loud and horrifying that the majority of the audience ran screaming from the venue. During a two-week residency at Cafe Bizarre in Manhattan the bar owner's wife told them that if they played The Black Angel's Death Song one more time they would be out on their collective ear. But before the threat could be tested, Andy Warhol and his entourage came to check them out. Warhol was sufficiently impressed to offer to become their manager. The only catch was he wanted one of his 'superstars', the Aryan beauty Nico, to front the band. "She was tone deaf and had an abrasive voice, but it turned out to be great casting" wrote Cale. With a certain amount of ego-juggling and emotional struggle the band jelled under the auspices of Andy Warhol's *Uptight*, a show which "victimised the audience" with a barrage of films - four or five at a time - in colour and black and white - strobes, searchlights and deafening music. A later version of this, *The Exploding Plastic Inevitable* - which included pervy whip dancing from Gerard Malanga and Susan Bottomly, and a giant pink syringe - became a landmark in rock history. Traditional rock-'n'roll performance had been transformed into a multi-media event.

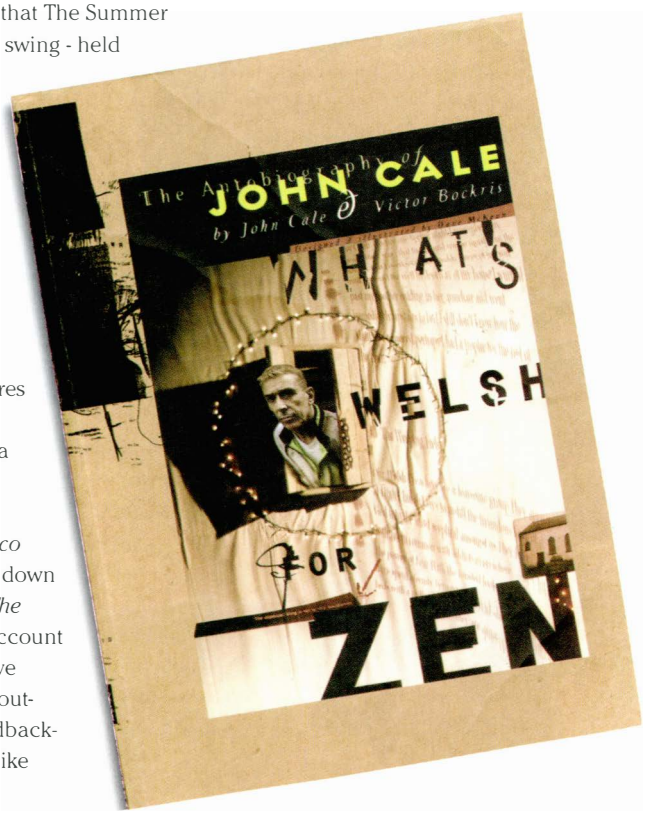




Two of the seminal albums of the 60s were produced in Cale's years of Velvethood. *The Velvet Underground and Nico* (1967) was their opportunity to record something very radical - a combination of Cale's avante-gardist and symphonic tendencies, and Reed's three-chord punk rock'n'roll minimalism, cranked up really loud and driven by Moe's tribal drumming. It was both musically and conceptually in diametric opposition to all that The Summer of Love - then in full swing - held dear. "The mentality of the West Coast was so vapid and directionless" wrote Cale, "Our attitude was one of hate and derision". Prophetic sentiments which would be echoed a decade later by figures such as uberpunk Johnny "never trust a hippie" Rotten.

The Velvet Underground and Nico has become known down the generations as *The Banana Album* on account of Warhol's distinctive sleeve art. Between outbreaks of brutal feedback-sodden abstraction like 'European Son', the classic songs came thick and fast. The material was completely uncompromising. Schizoid hymns to opiate addiction, like the alternately savage and restrained 'Heroin', or the purposeful clank of 'Waiting For The Man', set the tone. The sepulchral Middle-European contralto of Nico was put to work on tracks like the brilliant S&M dirge 'Venus in Furs' and the wistful ballad 'I'll Be Your Mirror'. Needless to say, given the subject matter, its style of delivery and the tenor of the times, *The Velvet Underground and Nico* got little or no airplay, and was not by any stretch a commercial success.

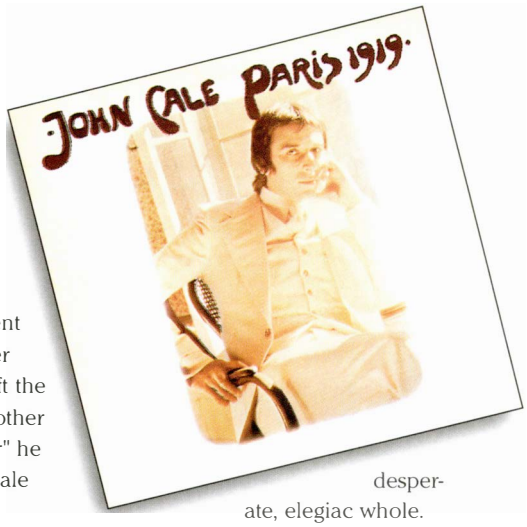
Warhol lost interest, and Nico left, but undaunted the band went on to make *The Velvet Underground,*



White Light/White Heat the following year. In retrospect, this album seems a perfect soundtrack for the year the hippy bubble burst in a cloud of drugs and violence at Altamont. But, despite the efforts of John Coltrane and others, the world was not yet ready for cacophonous17-minute studio improvisations like the gruelling, demented screeching and sawing of 'Sister Ray' and still less the howling feedback assault that was 'I Heard Her

Call My Name' (presumably the song from which The Jesus & Mary Chain appropriated many of their early notions of rock'n'roll). One of the highlights, covered, twenty years later (with Cale's vocal still in place) by techno gurus Sabres of Paradise, was 'The Gift'. His sinister deadpan reading, plangently Welsh-accented, of Lou Reed's horror story takes place over layered drones of œ chilling atonality. Its an extraordinary record whose time had yet to come. Roxy Music and particularly David Bowie later took it to their hearts, and Bowie covered the title song as an encore to his Alladdin Sane shows of the early 70s.

At this point rumbling discontent between Reed and Cale boiled over into outright acrimony and Cale left the band. "I had to go out and find another job, I figured I could be a producer" he wrote, and he was not far wrong. Cale turned out to be a producer of genius. He also began to write songs every day. Nico reappeared and a steady collaboration was begun with Cale writing songs for, producing and/or playing on four of her solo albums. Their best work was done on the Cale-produced and arranged *Marble Index* (Elektra 1968), *Desertshore* (Reprise 1971) and *Camera Obscura* (Island 1978). Nico's chosen instrument was the harmonium which proved a problem. "It was not exactly in tune with itself, or with anything else - its notes were 'in the cracks'...the best solution was to ignore it, or rather, use instruments that were consistently out of tune with it. The viola was useful in this way because of the long notes and drones...", A typical illustration of this method can be found on *Desertshore's* opening number, 'Janitor of Lunacy'. Here the low churchly chords of the harmonium meld with droning viola and Nico's deep, breathy vocal into a

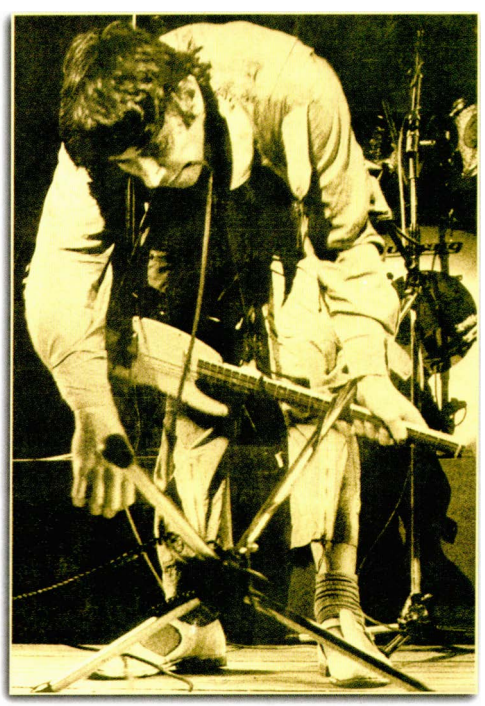


desperate, elegiac whole.

After Marble Index, Elektra offered Cale more production work and he collaborated with the avante-garde composer Terry Riley on the instrumental album Church of Anthrax (1971), and his own solo debut,the lushly orchestrated Vintage Violence (both for CBS.). In Detroit Cale met with The Stooges, who'd been playing a support to The MC5. He "fell in love with The Stooges" and produced their first album. "The story that effected my view of him (Iggy) at the time was the nights he spent alone in the farmhouse, up to all hours of the morning, tuning each string of his lap-steel guitar to the same note, turning it right up and immersing himself in the noise. That was vision to me". In the early days Iggy's band played dumb yet highly effective two chord punk rock, and it was their beautiful simplicity which Cale so successfully captured on the album *The Stooges* (1969 Elektra).

One of the album's finest tracks was the classic 'Now I Wanna Be Your Dog' - last heard on the soundtrack to Lock, Stock and Two Smoking Barrels. Over a riff which parodies Pink Floyd's 'Interstellar Overdrive', Iggy loses himself in what appears to ˝be an S&M domination fantasy. This is followed by 'We Will Fall', a truly Calesian ten-minute viola drone-work of the sort that nowadays might best be described as ambient/punk. It was the only time The Stooges sounded like The Velvets.

Cale worked as an arranger and session player on albums by Nick Drake and Mike Heron amongst others. He then became involved in the development of quadraphonic sound. CBS needed to assemble a series of quadraphonic tapes, so Cale was put to work on remixing the back catalogue. "CBS labs sent down people from Troy, where they did all the electronic research, some of it military. They brought some very strange audiophonic equipment that we played with...they'd talk about going down to Panama and sitting on power cables in the middle of the jungle, testing out gizmos for Vietnam".



Cale began to confront his heroin problem. Mixing quad was so boring and repetitious for him that using heroin was the only way he thought he could get through it. The contradiction was that the only reason he was mixing quad for CBS was to support his habit. It took a laborious month full time to come off the drug.

Coincidentally - or perhaps not - he decided to give up rock'n'roll and "do straight classical instead". How that decision squares with the unmistakable presence of Ronnie Wood's bottleneck guitar among the orchestrations on his next LP, *The Academy in Peril,* is not clear. Next came the melodic and elegantly contemplative *Paris 1919* (Reprise) for which Lowell George and Little Feat were the backing band. The critics hailed it as his 'chef d'ouvre' and the record company, for their part, deleted it within a year.

Jonathan Richman and The Modern Lovers first album was his next production project. Richman was a fan who claimed to have been to more Velvets gigs than Lou Reed. Consequently *The Modern Lovers* (recorded in 1973 but not released til 1977 - on Berserkly - just in time for punk) was the greatest album the Velvets never made. At this juncture Richman had not yet retreated into infantilism and his songwriting was of a high class. Cuts like the chilling 'Hospital' - "When you get out of the hospital/let me back into your life..." or 'Girlfriend' were up there with the best of Lou Reed, while 'Pablo Picasso' - later covered by Cale himself - is possibly the finest song ever written about an artist. "Well, the girls would turn the colour of an avocado/ When he would drive down their streets in his Eldorado/He was only five-foot-three but girls could not resist his stare/Pablo Picasso was never called an asshole/Not like you..."

Cale, though depressed and waylaid by cocaine, signed a three-year, six-album solo deal with Island in London. Over the next few years he released the abrasive *Fear* (1974), (which featured Phil Manzanera and Eno), the more commercial *Slow Dazzle* (1975) and the less well- defined *Helen of Troy* (1975). But Cales first appearance on Island came with the legendary live album *1 June 1974.* The concert took place at the Old Rainbow Theatre, and the featured band was Cale, Soft Machine guitarist Kevin Ayers, Brian Eno and Nico. Side two consists entirely of Ayers' songs, but the opening side has excellent versions of The Doors' 'The End' (with Nico on vocals and trademark pump-organ) and Cale's doom-laden rendition of Elvis' Heartbreak Hotel.

The next figure to be produced by Cale was Patti Smith. Her debut LP *Horses,* is a major work and a rock milestone. Her street smart and literate, poetic effusions were clamped to a scratchy, dreamy but hard-driven music which transcended genres and came across like bebop played with punk attitude (and guitars).

Guts, a compilation of Cale's solo output was released, rather fittingly, into the punk maelstrom in 1977, where it did rather well. (This is the one to go for if a solid introduction to John Cale is required).

Sabotage Live (1979) was

recorded at the legendary New York punk club CBGBs. We find Cale in psychotic mode taking on the 'Blank Generation' at their own game, and - as he had helped invent the game in the first place - emerging victorious. Its an intense performance.

Cale careered into the 80s with a series of albums *Honi Soit* (1981), *Music For A New* Society (1982), *Caribbean Sunset* (1984) and *Artificial Intelligence* (1985) each of which had its qualities, and then produced Nico's final album *Camera Obscura* (1985).

In 1986 came *Words for The Dying,* an extraordinary work in conjunction with the Moscow Symphony Orchestra and a cathedral school choir. It includes *The Falklands Suite* in which four Dylan Thomas poems are set to music. Somehow, despite the apparent futility in adding melody to words which are already supremely poetically musical, this album works well.

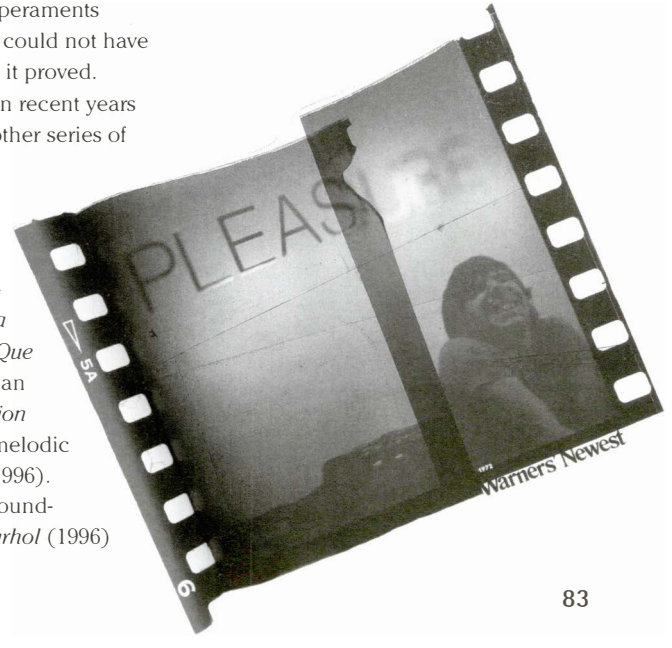
After Andy Warhol died in February 1987, Cale and Lou Reed put aside an - at times - fervent mutual loathing, and came up with the collaborative *Songs for Drella,* (1990) a musical elegy to Warhol's life and work. The elegantly minimal duets were poignant yet as highly perceptive as you would expect from the pair. It was the Velvet Underground with added maturity.

The more obviously rock orientated *One Way Up* in tempestuous collaboration with Brian Eno - followed. Cale wondered why working that way always seemed to become a war of attrition. The paradigms of creative tension provoking great work - Lennon & McCartney, Jagger & Richards, Reed & Cale, - however, seem to be all the evidence one needs to see its efficacy as an M.0.

The nineties brought further solo albums - *Paris S'Eveile* (1991), *La Naisance de l'Amour* (1992) and the gruelling piano-bashing anthology *Fragments of a Rainy Season* (1992).

Then something happened that no Velvet Underground fan expected. Indeed many on the musical-Stalinist indie/punk fringe threw up their hands in horror. The Velvets reformed. *The Velvet Underground Live MCMXCIII* (or 1993 for non-Latin scholars) and its series of shows at least allowed the many thousands of people (almost their entire prospective audience) who had come to the Velvet Underground long after the band's demise, a very welcome chance to witness them in action. Given the temperaments involved, the reunion could not have lasted for long and so it proved.

Back on the trail in recent years Cale has released another series of albums - *Last Day On Earth* (with Bob Neuwirth, 1994), the compilation *Seducing Down The Door 1970-1990* (1994), *Antartida* (1995), *N'Oublie Pas Que Tu Vas Mourir* (1996), an *Island Years Compilation* (1996) and the softy melodic *Walking on Locusts* (1996). There were two film soundtracks, *I Shot Andy Warhol* (1996) and *Eat/Kiss - Music for the Films of Andy Warhol* (1997). After recently completing an operatic work concerning the life of Nico, Cale has been touring with a fine acoustic trio, and giving readings from his autobiography *What's Welsh for Zen?* (Bloomsbury £20). And if there is an adequate response to the question of the Welsh for Zen, the avante-garde bard John Cale is clearly the man for the job..



How To Read The Record Reviews

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.

Key to Icons

- CD — CD
- Gold CD
- HD — HDCD
- XR — XRCD
- Double Disc
- MD — MD
- 120g — 120g LP
- 150g — 150g LP
- 180g — 180g LP
- 1 — Availability As S/H LP
- 120g — Vinyl Double Album

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.

Fun Lovin' Criminals

100% Colombian

Chrysalis 7243 4970 5616 120g CD

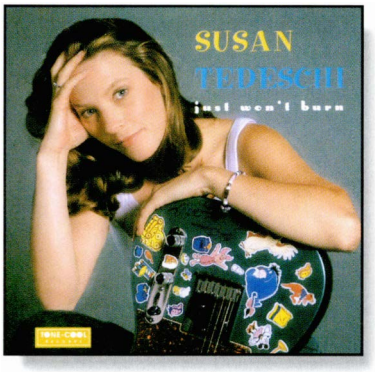
The three members of the Fun Lovin' Criminals are straight off the streets of New York City, and so is their music. Some may describe the bands style as 'Rap', I do not. The vocal delivery is Hip Hop or Rap, but the backing instrumentation draws from a huge range of influences; funk, blues (B. B. King guests on one track), jazz (a jazz brass section appears in several songs), rock , soul or R & B. You name it and it's in there. The tempo and feel of the tracks, varying from soft and moody to guitars driven at a speed approaching thrash, makes the sound impossible to pigeon hole.

The songs are often accounts of incidents, usually robberies, murder and other aspects of hard urban street life. Frequently conjuring images in the Tarrantino vein, they are all executed with tongue firmly planted. The lyrics always rhyme but never sound forced, and humour is often present in the lighter songs, along with plenty of double entendres. Don't be put off by the image, you'll be missing out on a fine album and one of the more original bands around at the moment.

100% Colombian had a hard act to follow as *Come Find Yourself*, the bands first album, was for me, one of the best albums of last year. Thankfully this new outing doesn't let the band down. Whether or not they are criminals they are certainly having fun.

JH

RECORDING
MUSIC



Susan Tedeschi

Just Won't Burn

Tone Cool CDTC1164 CD

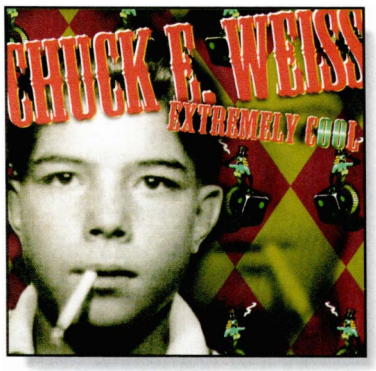
Tedeschi looks like butter wouldn't melt in her mouth, but then looks can be deceiving because this lady is one raucous belter of a singer. The opening track 'Rock Me Right' sets the pace - Susan's whisky soaked vocals merging wonderfully with 18 year old guitar wunderkind Sean Costello's caustic lead. She brings the pace down a little with 'You Need To Be With Me' a mid-paced rocker featuring another blistering solo from Costello.

On the wonderful 'It Hurts So Bad' you can feel the pain in her vocals especially when she pleads for her lover to come back to her because 'she misses him so'. The comparisons to Bonnie Raitt can be made on the quieter songs especially 'Looking For Answers' and the plaintive 'Angel from Montgomery' but where this girl is out on her own is when she's belting it out with the passion and soul of a young Etta James or a Janis Joplin. It's such a volcano of a voice it can catch you unawares, erupting all over this album with phenomenal power. Just take a listen to 'Mama, He Treats Your Daughter Mean' as a classic example.

Tedeschi can move into whatever musical territory she chooses. She has the talent to be around for a long time and I believe she'll be the biggest thing since Bonnie or Janis. (No point in sitting on the fence!!) Go buy.

AH

RECORDING
MUSIC



Chuck E. Weiss

Extremely Cool

Rykodisc/Slow River SRRCD CD

Not the most productive of musicians, but one for whom quality wins out, this is Chuck's second album in 17 years. Sometime resident lounge act at The Viper Rooms - the album comes with an executive production credit for Johnny Depp - Chuck is an old LA bar buddy of Tom Waits whose influence here is plain to see. Indeed, with Waits producing, playing guitar, and lending his 'vocal stylings' to many of the songs, its plain to hear too.

In the guise of raddled hepcats, they take us on a tour of blues styles - from the clanking, roaring Howlin' Wolfisms of 'Devil With Blue Suede Shoes', through the swampy 'Just Don't Care', the Creole 'Oh Marcy', and the demented scat-singing of 'Do You Know What I Idi Amin?'. For the trad-jazz song 'Roll On Jordon', Waits contrives a period-authentic sound, steeped in 1920s prohibition atmosphere (and murky as hell), but for the most part studio tricks are kept to a minimum. Weiss delivers his lyrics and Beat poetry in a ragged, whiskey-breath baritone, while the band - guitar, bass, accordion and organ, piano, drums, saxes and trumpet - play like the Mob was after them. Cool as you like.

JM

RECORDING MUSIC

Bruce Springsteen

Born to Run

Columbia Legacy Mastersound Collector's Edition CK64406 CD

By the mid 1980s Springsteen's albums and concert performances (whether consciously or not) were descending into parody. The gritty American working class realities of songs heard ten years earlier had been assimilated and diluted to a point where 'Born in the U.S.A.' was another yuppie rock anthem. Yet Springsteen, still trading on the same topics of unemployment and poverty, continued to attract audiences that were largely determined to ignore these issues and who rarely gave more than a plug-nickle for them anyway. So, although The Boss was as popular as ever, his sharp edged social observations were blunted.

Backtracking to 'Thunder Road'; 'Meeting Across the River'; 'Tenth Avenue Freeze Out'; and the title track of this excellent master tape to CD transfer, is like musically rolling up the shirt sleeves and dirtying your hands through honest endeavour. *Born to Run* has heaps of integrity and Sony's Super 20-Bit Mapping Process reveals it all. Forget the flimsy LP version unless, of course, the £23.95 asking price is a choker. The greater vocal energy, transparency, and tactile qualities of guitar, drums and sax are marks of distinction.

RP

RECORDING MUSIC

Beth Orton

Central Reservation

Heavenly Recordings HVNLP22 120g CD

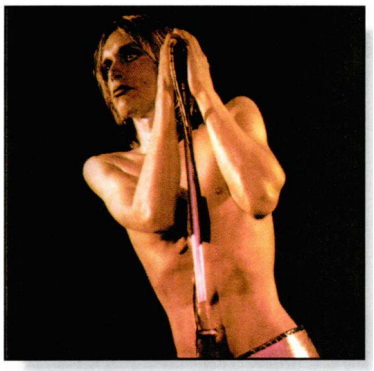
This album is the follow up to a cracker of a first album, *Trailer Park*, and has been a long time coming. Has the wait been worth it? Yes and, unfortunately, no. Let me elaborate. Beth Orton is a singer songwriter of the old school – she is talented and can tell a story with her songs, overlaying the emotion with just the right music. She has a fabulous voice, husky but with such fragility that at times you fear it might just crack.

A wider range of instruments and a simple production style lends a very impromptu feel to the whole album. At times it is a little too simplistic, and the music becomes discordant and disconnected, or rambles to an inconclusive finish, especially in the songs featuring Ben Watt's Abstract Sounds . Too abstract I fear, for a simple lad like me (Careful with that axe, Pete. Ed) . The acoustic songs have a power, immediacy and moments of rare beauty, allowing you to hear right through the imagery to the thoughts behind the songs. Sadly, too much of *Central Reservation* is forgettable, and at the end of the LP I found myself humming tunes from the first album.

Yet another 'difficult second album'. If you've got the first one and loved it , then this is well worth a try. If not, you know where to start.

JH

RECORDING MUSIC



Iggy and The Stooges

Raw Power

Columbia/Legacy 485176-2 (CD)

20 Bit digitally re-mastered from original Columbia recording of 1973

This is arguably the single most influential rock album of the 70s. Not for nothing is Iggy Pop, lead-singer and co-writer, known as the Grandaddy of Punk. Generations of be-leathered rock'n'roll sociopaths have been galvanised by the intensity of the performances captured on *Raw Power*. Trouble is, before this edition, they were hearing the half-assed, incoherent mix perpetrated by David Bowie. Bootleg versions of other mixes abounded in recent years, but for this official edition the tapes were remixed for posterity by Iggy himself. Those familiar with the original can now hear what the bass and rhythm guitar are doing - even the drums make their presence known. Those who have not experienced this landmark of rock'n'roll have not yet lived. On taut, wired rockers like 'Death Trip' or 'Search & Destroy', guitarist and singer battle it out, driving one another to ever increasing heights of savagery. As the tortured, feral screams of James Williamson's guitar build in synchronisation with the raddled vocal exorcism of "Honey, honey, I can tell/Your pretty face is going to hell!" catharsis is achieved. On torrid ballads like 'Penetration' it gets low down and dirty. Its prophetic too, for at one point Iggy snarls "If ya wanna make a buck,/Boy, ya gotta be a geek.." How right that turned out to be.

JM

RECORDING MUSIC

Echo And The Bunnymen

Evergreen

London 828 980-2 (CD)

The camouflage clad new-wave underachievers are back. And how! History might have passed them by but for an uncharacteristic desire to kick against the pricks and right a few wrongs. I mean - Simple Minds?

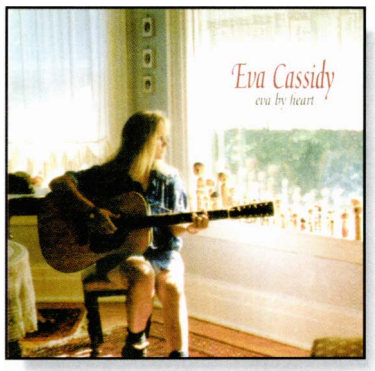
He always had a great voice, but this is an older and wiser McCulloch. And Will Sargeant's urgent guitar has mellowed and matured into a far more powerful instrument. The combination creates anthemic slabs of song with the emotive qualities of stadium rock, but the depth and intelligence of the best bar bands.

From the opening track 'Don't Let It Get You Down', right through to the fabulous majesty of 'Forgiven', there isn't a bad track here. Even 'Nothing Lasts Forever', oddly irritating as a single, fits like a glove into the context of the album as a whole. The Bunnymen have learnt pathos and control to temper their energy and power, and suddenly their undoubted talents have discovered an outlet capable of taking the strain. The frustration of years spent in the wilderness gives the whole thing an unstoppable focus and momentum.

NME called it 'the greatest comeback since Lazarus'. I can live with that.

RG

RECORDING MUSIC



Eva Cassidy

Eva By Heart

Blix Street Records G2-10047 (CD)

Don't be put off by the "Toast of Radio Two" reputation, or the mawkish sentimentality surrounding her untimely death from cancer, Eva Cassidy has a voice you should hear. She is, in a pop industry obsessed with publishing rights, that rarest of animals, a singer of other peoples' songs.

And what a singer! There's none of the tortured angst of the archetypal American torch songster. In its place is a vocal purity that avoids being clinical, and a control that holds the lyric with out crushing its delicacy. But it's her interpretation that makes her so special. Moving effortlessly between different styles and genres, she is impossible to pigeonhole. As Mary says, she has an uncanny knack of making even the most familiar song her own.

In a career cut short, she only recorded a single studio album, a live set, and a still to be released disc of duets with Chuck Brown. There's also a sampler, *Songbird*, but I've avoided reviewing that on the basis that if you like what you hear, you'll be buying the other discs anyway.

This is my favourite (the live set suffers from her crippling shyness), and the place to start. Pop it in the drawer, key up track two 'Time Is A Healer' and you'll understand what all the fuss is about!

RG

RECORDING MUSIC

Ani Difranco

Up Up Up Up Up Up

Cooking Vinyl Cook CD 173 (CD)

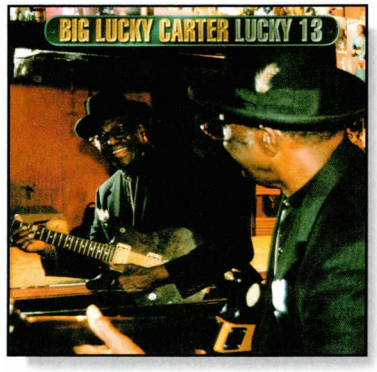
"Oh no not another female singer songwriter" cried my better half as play was pressed for this new Ani Difranco album, "Well yes but this one is different" I stated. "How so?" came the reply. "Well its different and, well, different". Admittedly not the most succinct or informative reply I have ever given, but it set me thinking. I listen to a lot of female vocals but *UpUpUpUpUpUp* really stands out from the crowd. So what makes it different? There's good lyrics, songs you connect with, the odd social commentary. Nothing new there. Its originality lies in its arrangements.

The album enthuses some great songs with a mixture of almost experimental music, pure funk and silence. This variation is its strength. Just when I was getting comfortable with the album, up pops a banjo, and a great country inspired track. Both intros and finales are treated with great care, grabbing your interest very quickly, and leaving you satisfied when the track ends.

Ani Difranco is a prolific artist (more than a dozen albums and she is only 28) and judging by the quality of *UpUpUpUpUpUp* she is capable of many more. Give it a whirl.

JH

RECORDING MUSIC



Levester "Big Lucky" Carter

Lucky 13

Blueside Records WESF 106 (CD)

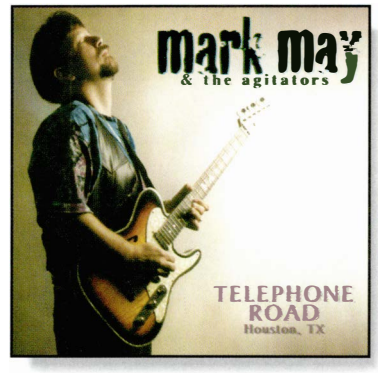
I first heard "Big Lucky" Carter in Charleston, South Carolina when the blues show on the Local PBS station played a few singles from sixties label Hi Records. I could not understand why this great bluesman in the John Lee Hooker tradition wasn't better known. Just a few rare appearances, some compilations and other peoples tracks.

To have your album debut at the age of 78 is unusual. To do it and be acclaimed as an undiscovered master of Memphis blues is unique. From the new version of his only real claim to blues fame 'Goofer Dust', to 'Pleasure for your Treasure' this album cooks. The double entendre of 'Miss Lula May's Mule' and 'Graze in your Pastures' will just crease you up. In fact, any true blues lover will love this album that was fifty years a-comin'.

This is not glittzy "Coffee Table" blues. This is the authentic sound of people who have come together for years in clubs, bars and finally studios, to make music they love. 'Big Lucky' on vocal and guitar and the cream of Memphis blues, give a sound that is pure craft. Some records you should live with. Some are to die for. This one I would kill for, and you don't get many that good.

PS

RECORDING MUSIC



Mark May and the Agitators

Telephone Road, Houston, Tx

Icehouse P250690 (CD)

On his second release for Memphis blues label Icehouse, Mark May confirms what we all suspected - he's got what it takes to become the next blues superstar. *'Telephone Road'* is littered with tasty licks, incendiary solos and top rate singing, and top notch songs mostly written by May himself.

Opener 'Mercury Blues' gets the ball rolling with some rock tinged soloing, but things really light up with the sexually soaked 'Sweet Spot', a funky little tale with some delightful wah guitar. Next up is the nine minute slow blues of 'Lights Are On But Nobody's Home', written by Albert Collins, and featuring solos the Iceman himself would be proud of. 'Back In The Joint' is a glorious slab of funky blues with some totally fireball guitar playing from May. Things get all soulful with the beautiful 'Took Me Surprise', featuring a gorgeous sax solo from Eric Demmer. Mark gets a helping hand from Larry McCray on 'She's A Stranger' but saves the most explosive playing for 'I'll Be Around', one minute all funcky and the next invoking the spirit of Hendrix.

Sound quality is very good throughout, and the playing from his backing band is exemplary. Losing Stevie Ray left a massive void but Mark May is living proof that the blues is in safe hands.

AH

RECORDING MUSIC

Gene

Revelations

Polydor Records GENEL 4 547 119-1 120g CD

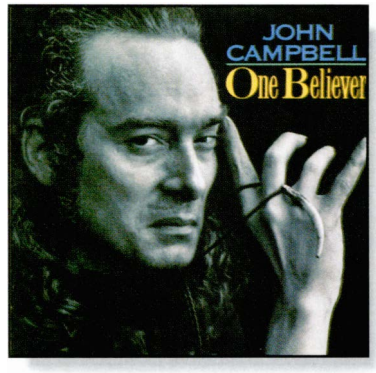
"Gene? They sound like the Smiths ..... don't they?" An oft heard complaint, was it true? And if so, has anything changed with this album? A change of image, floppy fringes to skinheads has helped them extricate themselves from the Smiths shadow, and lead man Rossiter is making good use of the music press after the (mostly undeserved) hard time the band has received in the past.

Revelations is their latest album and their best to date mixing the old elements of some well observed social commentary and melancholia with some very good tunes. A pretty standard four piece outfit wielding guitars, bass, drums and keyboards they rely on a big, busy guitar based sound which drives the songs along and provides plenty of sing along moments. At their best they resemble early REM, melodic but with a distortion edge and those dark lyrics. On some of the tracks the music loses a little cohesion but this is partly due to uninspired production, which really lets them down.

This is a decent album which is well worth a look from a band who are maturing well. You might have passed first time round, but they've become good tune smiths instead of poor Smiths clones.

JH

RECORDING
MUSIC



John Campbell

One Believer

Elektra 7559610862 CD

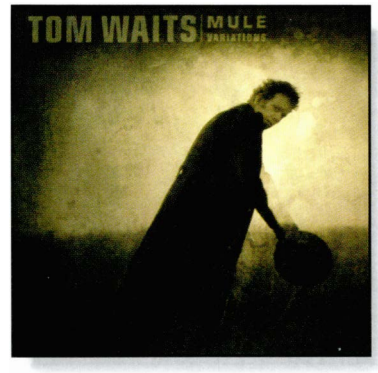
There were few more imposing sights in blues than John Campbell. When only 16 years old he was horrendously injured in a drag racing accident and spent 6 months recovering in hospital where he had over 2000 stitches in his face. It was while he was recovering he picked up the acoustic guitar and taught himself to play.

Twenty or so years later he recorded *'One Believer'*, one of the darkest, meanest and moodiest blues albums you're ever likely to experience. Campbell didn't so much sing, he growled. 'Devil In My Closet' tells of the heartache and despair of his woman cheating on him. 'World Of Trouble' perfectly documents the dangers that lurk around every corner for all of us. The moving 'Tiny Coffin' tells of the senseless driveby shooting of a 6 year old boy, Campbell's voice dripping with anger and despair and his guitar playing at its darkest. The lyrics hit home hard ("It takes a tiny coffin for a six year old, it takes a small hole in the ground. You could fill it up with my tears and rage, as they lowered Billy down").

Throughout *'One Believer'*, Cambell gets blood out of his guitar and attacks the music with breathtaking ferocity. Sadly, he died in his sleep from heart failure at the age of 41. *'One Believer'* will remain as a lasting and moving testament to a wounderful talent.

AH

RECORDING
MUSIC



Tom Waits

Mule Variations

Anti/Epitaph 6547-2 180g CD

The first album in seven years from the Beat poet laureate of low-life Americana comes at a time when his influence is most keenly felt. From the Palace Brothers to Blur to the John Spencer Blues Explosion, bands on both sides of the pond are now vigorously exploring their roots in American folk idioms. Since his 80s classics *Rain Dogs* and *Swordfishtrombones*, Waits has been the postmodern archeologist-in-chief. Here as before, blues and country, polkas, bebop, hymns and western balladeering (among other forms) have been deconstructed, subjected to weird percussion and weirder arrangements, and the - frequently brilliant - lyrics delivered in that extraordinary slurred rasp of a voice. The instrumentation is stripped right back - and as with Keith Richards, its what they don't play as much as what they do that makes it - and it seems as if the dust of ages has somehow patinated the ambience of these songs. Long heralded by critics and musicians as a songwriter of genius, Waits presents his songs in a wilfully distorted, and occasionally demented fashion -mainstream consumers previously familiar with his work from film soundtracks or tasteful cover versions by the likes of Rod Stewart and Bruce Springsteen. But now that *Mule Variations* has found itself high in the album charts we can all see what the fuss is about.

JM

RECORDING
MUSIC

Antonio Forcione & Sabina Sciubba

Meet me in London

Naim CD 021 (CD)

Acoustic guitar and female vocals can have a special flavor, but it's a heady mix that works on the less-is-more principle. On this release from Naim Audio, Antonio moves from front-line guitarist to provide the song foundations, backdrops and tonal embellishments for Sabina to sing her way in and out of.

There are a number of cover versions, such as Stevie Wonders' 'Visions', Al Jarreaus' 'Could You Believe' and 'Timmy Thomas' 'Why Can't We Live Together'. Recording engineer Peter Williams has gone for a very English, dry and unadorned sound and it works well enough to leave the focus on the musicians.

Antonio is as subtly Latino as ever and shows a different side to his playing than on previous releases. Sabina has a good voice, but it is her phrasing and fine use of space that makes the album that bit more involving for me, especially on the slower songs like Caruso, which is homage to the great tenor. This must be one of the most difficult songs to sing, but they both manage to bring that extra bit of tension to bear where the song needs it.

It's a very close and somehow personal album, with no one out to impress, and its all the better for that.

CT

RECORDING
MUSIC

Furslide

Adventure

Meanwhile CDVUSX 151 (CD)

The most aptly titled album this month, year, decade, take your pick. Settle down in front of this album and enjoy an adventure, a true musical roller coaster ride. Genre mixing is touted as the "happening thing" in the music business, but there are few bands who manage to mix so much into one song let alone an album. From Indie through Britpop, taking in Prog. Rock and Folk, and through to a thrashy-grungy sound, Furslide are influenced by and make use of them all, but still sound fresh and new!

Strong female vocals lead the group, and again the range of different styles is amazing. From Joni Mitchell to Alanis Morrisette they are all in there. I'm not saying the woman is an impressionist, but boy is she versatile. The one thing that is consistent, is the space and importance given over to those vocals. The guitar solos and instrumentation will change suddenly, fade to background or simplicity, abort suddenly or return to some consistent melodic thread. The lyric is then delivered in a sudden oasis of calm, its intensity framed by a particular musical image. Very effective, with the unobtrusive production being employed to further focus the effect.

The band come across as a band (a rare occurrence). They really lay down and keep to a tune, even when it disappears behind the vocals, a guitar riff or some sweeping orchestration. There is a rythmic intensity that draws you deep into a song, With all the performers working so well together, you can't help but hum or sing along.

The presence of such strong influences could be seen as a lack of originality, but the sheer quality of the execution helps stave off the accusations of dirivitism. It becomes a musical game; guess the influence, name the band, identify the performer.

This album is far too complex to get to grips with on a quick listen, or to adequately describe in the extended space I have here. What you need to know is that it is Bloody Good! Several plays later and you are still uncovering new detail, finding new interplay between the musicians. This is a disc to cherish, and you will keep coming back to it. The book style of the CD case adds to this feeling, no plastic bits floating around here! Furslide are going to really struggle to improve on this in the future I really can't recommend Adventure highly enough.

JH

RECORDING
MUSIC

Iron Butterfly

In-A-Gadda-Da-Vida

Simply Vinyl 180g CD 3

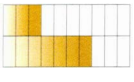
My original copy of this album, bought in the early seventies sounds like fingernails scraping down a blackboard, so I was eager to get the Simply Vinyl re-issue clamped up to the Orbe in the hope of some improvement. Unfortunately the margin is slight; the fingernails have obviously had a manicure, and there is now at least some semblance of bass, but on the whole this is an album which should avoid bright sounding systems.

Production wise *In-A-Gadda-Da-Vida* sounds much more dated than some of its UK contemporaries, such as the Beatles' 'double white' album, and musically it gains its reputation not from the short tracks on side one, but from the title track, which takes up the whole of side two. Frequently described as prototype heavy metal, this track certainly relies on a killer riff to hold the listener's attention. The middle section, with it's drum solo and spacey organ / guitar motif rambles a little in places, but not enough to have you reaching for a magazine, then it's back to the familiar riff for the finale.

Always more of a classic for the Americans than the Brits, this album still appeals, despite the aged production. However if you don't know it already, you might be wise to try before you buy.

DA

RECORDING MUSIC



Jah Wobble

Deep Space

Thirty Hertz Records 30HZCD9 CD

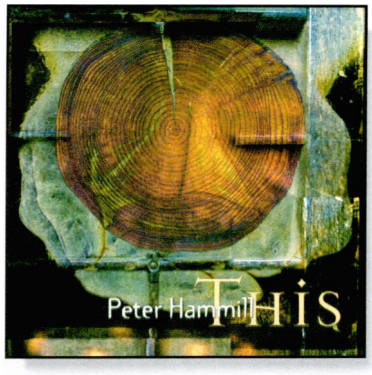
When you first come across this you wonder what on earth old Wob thinks he's up to. Then, after repeated visits, the veil lifts and all - well, most - becomes clear.

On lengthy excursions, the intergalactic jazz of Gong and Sun Ra, the space rock of Hawkwind and Amon Duul, and the Krautrock experimentalism of Neu and Can are melded. Then, just when you've got used to the whole early-70s cosmic rhythm of it, and you think you've got the handle on the enterprise, why, he hits you with the crumhorns. As if that were not sufficiently odd, rauschpfeife, Northumbrian pipes and early percussion instruments join the long-haired jam session. In the fullness of time we also get a clanking, wheezing harmonium.

So you scratch your head. Then you remember how Wobble identifies with William Blake, the well-known Cockney seer (a man given to apprehending trees full of Seraphim on his walks round Lambeth and regularly communing with the Prophet Isaiah). Blake's visionary mediaevalism was deeply unfashionable and he was thought mad. But not Wob. In these millennial times such a mixture of ancient and modern, the spiritual and the technological, is both meet and right. Deep Space gets down and grooves like the Choir Invisible.

JM

RECORDING MUSIC



Peter Hammill

This

FIE9118 CD

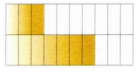
Peter Hammill is a hugely influential artist with over thirty albums to his name, and yet he remains almost stubbornly unknown amongst the music buying public. The cognoscenti would have you believe that acquiring the taste requires a great deal of work, but I disagree and This is a good place to start.

The only instrument that remains constant across a Hammill album is his voice, and a fine instrument it is. He also provides most of the instrumental backing, with the addition of a few favoured musicians. Thus the arrangement and instrumental density are selected to suit each song, and range from the simple piano and multi-tracked vocals of Since The Kids to the pseudo gypsy violin of Nightman. Elsewhere, the staccato delivery and heavy beat of Always Is Next will appeal to rhythm junkies whereas the hypnotic ebb and flow of The Light Continent will find favour with those who prefer the more ambient. The remaining standout track, Stupid, invokes the feeling of a deep forest at night, with the listener strolling with the rhythm and the saxophone skulking behind the bushes.

This is an album that is both different and familiar. Try it and you'll find a lot to like, but be warned: Hammill can be very addictive.

DA

RECORDING MUSIC



John Mellencamp

The Lonesome Jubilee

Ultradisc UDCD634 CD 3

Albums come and go but some just grow and grow, and this for me is one of the finest rock albums ever made. From the opening lines of 'Paper In Fire' ("She had a dream and boy it was a good one") Mellencamp takes us on a rollercoaster ride of all that is great about American roots rock.

The band absolutely cook, in particular (Kenny) has never lost touch with who he is or where he came from. He understands the working man's plight and how difficult it can be just to get by. beautifully described in 'Hard Times For An Honest Man', but he also knows the importance of chilling out and having fun every once in a while (take a listen to the lazy 'Rooty Toot Toot').

Whenever I mention to anyone that I'm a fan of this guy they more often than not say "Oh! Isn't he the chap that did 'Jack And Diane'? Well , yes he is but he also happens to be responsible for some of the best music to have ever come out of America. If you've discovered him already then you know what I'm talking about, if not, and you're a fan of Springsteen, Petty, Seger etc. do yourself a huge favour and buy this album - I guarantee you will not be disappointed.

AH

RECORDING
MUSIC

Garbage

Version 2.0

Mushroom Records MUSH 29LP 120g CD

Version 2.0 suffers from a bad case of DSAS (Difficult Second Album Syndrome), an affliction which troubles a lot of bands. Especially after a storming debut.

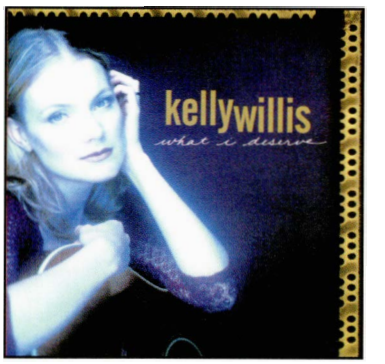
Three Americans fronted by a Scottish female vocalist, Shirley Mansun is at least half the reason they sound so good. Pouty, sensuous and disdainful all at once, her vocal delivery is straight from male fantasy land. A deep feminine voice, it is used to great effect, the breathy quality caressing, the power shocking. The rest of the band produce a wall of power, industrial in its intensity, fuelled with feedback and distortion, but at the same time layered with subtlety.

The tracks are strongly rhythmic with frequent changes of pace; never a soft, melodious sound, but often strangely languid. Sudden silence is the order of the day, followed by full power re-entry. The lyrics are strong and angst ridden, fitting the delivery and music perfectly. But it's all a bit brutal after the poise and controlled anger of the first album.

That album, *Garbage*, was a fabulous piece of work. Version 2.0 is less good. Poor production smears the tunes, and the all important edge is frequently lost. Don't get me wrong, this isn't garbage, but following their first outing has proved difficult.

JH

RECORDING
MUSIC



Kelly Willis

What I Deserve

Rykodisc RCD10458 CD

She's been called *'an angel with hell scorched wings'*. I'm not sure about that, but one thing is for certain - Kelly Willis is the jewel in Country's crown, and what she deserves is recognition of that fact. Far from following the sugar sweet path of so many of her contemporaries, Kelly lives on the rootsier edge of town. Her voice is a wonderful tool which she bends with quite awesome effect, especially on the title track, where she longs for 'comfort for my shaken soul' and the self penned 'Talk Like That'. She's a more than capable songwriter, contributory six of the thirteen tracks here.

Adding lovely shimmering guitar to most of the tracks is Green On Red's Chuck Prophet and the whole album has a wonderful 'on the road' feel straight from played in the sweaty roadhouses of America's back yard.

One of the album's undoubted highlights is Kelly's cover of Nick Drake's 'Times Has Told Me' - so good it eases the original firmly into second place. She gets all protective on 'Cradle Of Love' and raises the temperature considerably on the bluesy 'Got A Feeling For Ya'.

The Album draws to a close with the achingly sad 'Not Long For This World', a sparse lament for a broken heart which lends itself perfectly to her tear stained voice.

AH

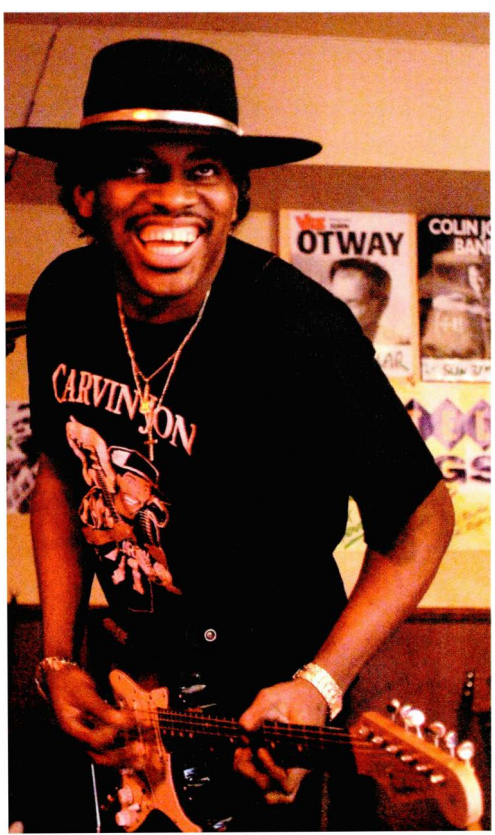
RECORDING
MUSIC

Carvin Jones; fixing the mould.

by Paul Stewart

Carvin Jones? Who's he? Well, probably the most exciting guitar-slinger I have heard in many a year. You see, what happened was, I went to see a completely different band, at the Torrington in London's North Finchley. Now the only thing that put Finchley on the map was that Maggie Thatcher used to be the MP. For anyone to claim it as the Capital's 'Blues Centre' could indicate that they were barking mad. But, that would be if you didn't know about the "Torrie". For the past thirty years the cramped sweaty room in the back has been the home to some of the finest Blues, Jazz and Rock performances on the planet.

The band I went to see (The Hoax) were good, but I saw this poster for Carvin Jones which had the following "I thought when God made guitarists like Jimi Hendrix and Stevie Ray Vaughn he broke the mold but it appears it was only in storage. You have got to check out this guy Carvin Jones from Phoenix Arizona". This from no less than Eric Clapton talking to the TV station VH-1. Now, if "Slowhand" rates the guy I had to find out more. I spoke to the guys on the door "Bloody Amazing" was the most printable comment, and all of it was good. So, I arranged to see/hear for myself, and when Carvin returned to the UK a few weeks later I was back at the "Torrie".



As the band hit the stage I saw that Carvin's presence and playing style bear an incredible resemblance to the late Jimi Hendrix. But, despite covering a number of Hendrix tracks this was not slavish copying. Carvin brought his own style and verve to the tunes, including this incredible stunt where he plays two guitars at once. Later, I was able to catch up with him and talk about how this all came about. He told me he had been playing lead since he was Eleven having grown up hearing all the greats of the sixties. He is set to return to the UK later this year to record with Roger Mayer the near legendary guitar effects guru who helped Hendrix and many others to achieve a special sound.

When I asked him who he saw as his influences, and who, given the chance he would most like to jam with he was stumped. "Damn that's a hard one. You mean now or anytime"? "Whenever" I said "It's up to you". The answer when it came was not really that surprising. "Well Jimi of course, and probably Eric Clapton, and any of the greats of the sixties".

This is a performer who loves his genre and is one of the select few who will be able to stamp his mark upon it. Now headlining in the USA and in Europe, The Carvin Jones Band are one of the hottest bands to ever hit the Arizona blues/rock scene. Bassist Tom Feigenbaum and drummer Todd Jewell are a rock solid rhythm section, and provide Carvin with the solid foundations from which the licks just soar.

In the past seven years, the Band has performed with legendary greats B.B. King, Buddy Guy, Albert Collins, The Fabulous T'Birds, and Joe Cocker, to name a few. Despite a seven show per week schedule, Carvin himself finds time for personal performances at the schools near Phoenix. This punishing schedule has taken its

toll, and sometimes this shows in the vocals, with occasional roughness and (to say the least) suspect tuning. But, all this is forgiven when the strings begin to sing and the hairs start to stand up on the back of your neck.

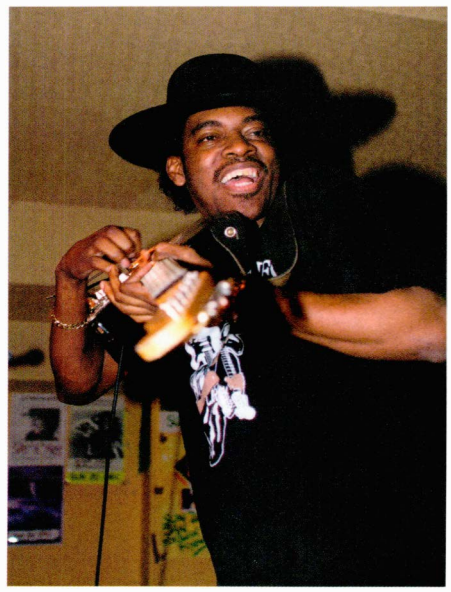
Although almost unknown in the UK mainstream, Carvin and the band have received a string of accolades in the US including the New Times' Reader's poll "Musician of the Year" in 1997, and Char's Has the Blues "Best Guitarist of the Year" for three years in a row. The Band received the Arizona Entertainment Award for "Best Blues Band of the Year" in 1993, and was voted "Best Blues Band" from 1994 through 1996 by the New Times' Reader's poll.

There are already two discs available Burnin' Up the Blues and Live at Joe's Grotto, plus a video. And there's a new double live set coming, imaginatively titled 'Live In London', and featuring performances from the tour I saw. The downside is no distribution in the UK, so you have to buy them at a gig or directly from the US. This would be more of a problem if the gigs weren't so darn good. But if you can't make Carvin live, you can get the discs from:

Tee Records
PO Box 53337
Pheonix
Arizona
85076
USA

There's also details on the web, at www.carvinjones.comm, but they don't take credit cards.

So Carvin Jones, check him out. And tell him the fat guy sent you.



Django Bates

quiet nights

Screwgun screwu70007 (CD)

I love this album. Recorded in '97 it's a heady mix of melodicism, abstraction and frankly nutty fun which you'll love or hate forever at first listen. Most accessible is the opening number 'Speak Low' which like all the vocals on the album, is sung beautifully by Josephine Cronholm. From this we're launched into a 'cut and paste' version of 'Teach Me Tonight' which somehow blends a reggae influenced loping bass line, sax and keyboard bells and effects, and makes the whole thing work in a way that gives you a whole new insight into the song. Then it's straight into recorded church bells and the first original composition 'and the mermaid laughed', and onwards and upwards taking in a frankly insane 'Hi lili hi lo' and an amazing take on Ellington's 'Solitude'. This features a carefully doctored piano (rumour has it that Bates flung a few pieces of cutlery and other detritus inside the upright to achieve the desired effect). It certainly sounds like it. Notes appear at random accompanied by the sound of hammers hitting, well, whatever, but not strings. Again somehow it works.

Fittingly, the album closes with 'Over the rainbow'. If you've ever been tempted by the yellow brick road, try it. You're going to love it, or hate it!

DD

RECORDING
MUSIC

Coleman Hawkins Quartet

Today And Now

Impulse IMP 11842 (CD)

Recorded in 1962 during a particularly productive four week period that also produced two other classic albums *'Desafinado'*, and his collaboration with Ellington, this is one of Hawkin's most easy-going and enjoyable sessions. Virtually unrehearsed, Hawkins and his regular trio of Tommy Flanagan, Major Holley and Eddy Locke are clearly having a great time. Three of the albums seven cuts were completed in a single take and it is this air of spontaneity and sheer enjoyment that permeates the album. The most unlikely numbers, 'Put on your old grey bonnet', 'Don't sit under the apple tree' to name but two, are transformed, the former becoming a great blues workout lasting almost ten minutes.

Although it's clearly a studio session, the spontaneity gives the whole thing the feel of an outstanding club date and what's lacking in audience 'atmosphere' is made up for by improved recording quality. Nicely packaged in Impulse's digipac format, 20 bit re-mastered and with comprehensive notes all at mid price, what are you waiting for?!

DD

RECORDING
MUSIC

Cassandra Wilson

Traveling Miles

Blue Note 7243 8 54123 25 (CD)

Opening and closing with takes on 'Run The Voodoo Down' this is Wilson's Miles Davis inspired album and is her finest to date. Her previous Blue Note Albums *('Blue Light 'Til Dawn' and 'New Moon Rising')* had some fine numbers but were a little patchy. The good numbers were stunning ('Come On In My Kitchen' and 'Harvest Moon' leap to mind), and could bring a whole new feel to familiar material, particularly the Neil Young song. But, this level of inspiration didn't carry across all the songs.

This time she's done it. Her original compositions are much stronger and she knows it. Her singing is much more confident, and she even tackles Cindi Lauper's 'Time After Time' as a rolling acoustic number with great success. Mixing her own and other compositions equally with the directly Miles related numbers, it's much more difficult to pick standout tracks, although I particularly enjoyed 'Never Broken' with some fine violin backing from Regina Carter, and 'Sky and Sea', along with the two takes of 'Runs The Voodoo Down'

Recording quality is fine, with warm 'analogue-like' bass in a spacious acoustic, and Wilson is in fine warm toned form throughout.

DD

RECORDING
MUSIC

David Lindley and Wally Ingram

Twango Bango Deluxe

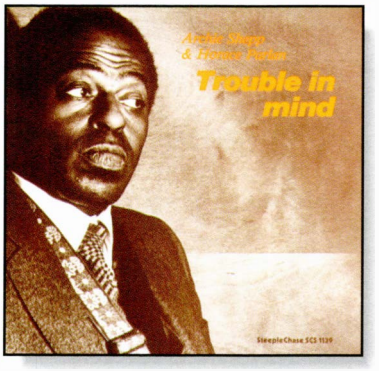
Ulftone UTCD003 CD

I've been a fan of Lindley both as a session man, and in his own right, for more years than I care to remember. His major label releases seem to have faded out a few years back, but more by chance than design, I've recently found this release on Ulftone. From it's cheesy lurid pink cover, it's even more cheesy song titles and lyrics - sample from 'Cat food sandwiches' about life on the road - 'I've got cat food sandwiches waiting for me back stage, and the woman who made them looks just like Jimmy Page'- it's cheesy fun all the way. Lindley's playing is as strong as ever, his singing is its usual reedy self, and Ingram, who I haven't heard before, is clearly a percussionist tailor made to accompany him.

The recording quality, the album was made 'live on stage and in the studio' on Lindley's Sony 8 track, is a little shut-in, but all the rhythmic drive and spontaneity of the pair is well captured. Lindley himself sums up the album with these carefully chosen words 'Big Bang. Big Twang. Big Good Thing'. I couldn't put it better myself. Highly recommended if you want a smile on your face and your foot tapping within the first few bars.

DD

RECORDING
MUSIC



Archie Shepp and Horace Parlan

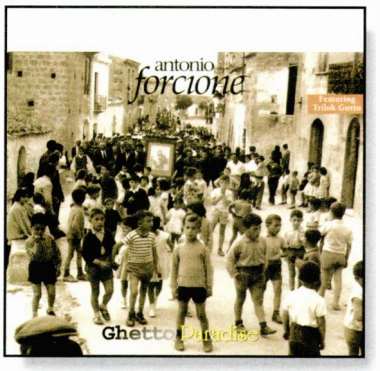
Trouble in Mind

Steeplechase SCS-1139 180g

Shepp began his career in the '50's, playing tenor in R&B bands. The '60's saw him expand into the avant garde. More recently he has held a variety of academic positions in the States, has written and produced theatrical works, and in his playing has been exploring blues and jazz roots. Trouble In Mind, recorded in '80, is something of a companion piece to what many consider his greatest album Goin' Home which was recorded in '77. Like that, this is a duet with pianist Horace Parlan, and again the simplicity really pays off. Across a selection of slow to mid-tempo blues, Steeplechase's very natural recording places the duo in the room with you, and every nuance of the performance is crystal clear. Shepp's playing, from breathy soft tones to rough blues honking, is captured with real solidity and presence. At no time do you feel the absence of bass or drums, the intensity of the playing definitely proving that in this case less is more. Across a well judged selection of blues, R&B and jazz standards, all the numbers are equally strong, although I particularly like Shepp's interpretation of the old classic 'St James' Infirmary' that closes the album. The only drawback I can find with this fine release is that my pressing is slightly noisy.

DD

RECORDING
MUSIC



Antonio Forcione

Ghetto Paradise

Naim 032 CD

Supported by Trilok Gurtu on percussion and Kai Eckhardt de Camargo on fretless bass, this for me is Forcione's strongest set to date. His previous albums have been beautifully played but I've always found them erring a little too much towards the lyrical at the expense of more muscular playing. Here the balance is spot on.

Inspired by memories of his childhood in a small farming community on the Adriatic coast, the 'Ghetto Paradise' of the title, the music has real strength. The playing of the core trio is particularly tight throughout and is complemented by additional percussion, sax and vocals on a few tracks.

Standouts include 'Maurizio's Party', with particularly dynamic playing from Forcione underpinned by rock solid percussion, and rolling fretless bass work; and 'Alhambra' with gently pattering percussion and wordless, Indian sounding vocals. The album closes with 'If', a beautiful solo on classical guitar dedicated to Forcione's parents.

The recording quality is up there with best, with plenty of air around each instrument, good stage depth and particularly strong bass.

DD

RECORDING
MUSIC

Gustav Mahler
Das Lied von der Erde

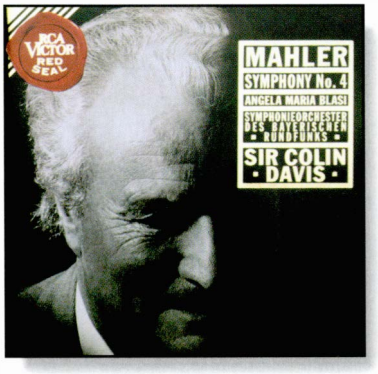
Christa Ludwig, Fritz Wunderlich, Philharmonia and NPO
Otto Klemperer

EMI 5 66892-2 ADD 64m 07s (CD)

Klemperer had a special authority in Mahler. As a young man he met the composer and heard him conduct many times. This legendary performance was issued on LP in 1967. But the first sessions with Christa Ludwig took place in London's Kingsway Hall during February 1964, and Fritz Wunderlich recorded his songs at Abbey Road studios in November that same year. Those November sessions were the original Philharmonia's swansong; shortly after, founder Walter Legge tried to disband the orchestra. With the musicians reconstituted as the New Philharmonia, Klemperer and Christa Ludwig returned to Abbey Road to complete the recording in July 1966. Despite being spread over almost two and half years, the performance shows remarkable continuity. Klemperer conducts without a trace of sentiment, giving a tough angular reading notable for its plain unvarnished honesty. Wunderlich is passionate and lyrical in his songs, while Christa Ludwig is commanding and authoritative, matching Klemperer's stoical reserve and intellectual toughness. The recording was always good, and sounds very firm and clean in this newly remastered edition; clarity is excellent - voices separate well from the orchestra, with winds nicely forward in typical Klemperer fashion.

JMH

RECORDING
MUSIC



Mahler Symphony No 4

Angela Maria Blasi (sop)
Bavarian Radio Symphony orchestra
Sir Colin Davis

RCA 09026 62521-2 (CD)

With its delicate transparent orchestration and crisp shimmering sonorities, Mahler 4 is a work that fits into the confines of hi-fi reproduction perfectly. The music teems with intricate detail, yet thanks to Mahler's skilful scoring, the sound picture remains clear rather than becoming cluttered. Even so, the effortless clarity and wide dynamic range of the present recording remains something to marvel at. The sound is fresh, luminous, and skilfully balanced, allowing even the tiniest strand can be heard. Davis' interpretation is wonderfully subtle and blessedly free from preciousness, despite infinite care taken over detail. Tempi are flexible, but the transitions feel so natural and spontaneous, one could hardly imagine things being otherwise. Angela Maria Blasi sings beautifully in the finale, and Davis' phrasing and pointing of rhythmic subtleties in this movement is breathtakingly sublime. A disc to treasure!

JMH

RECORDING
MUSIC

Brahms
The Two Piano Concertos
Fantasien Op. 116

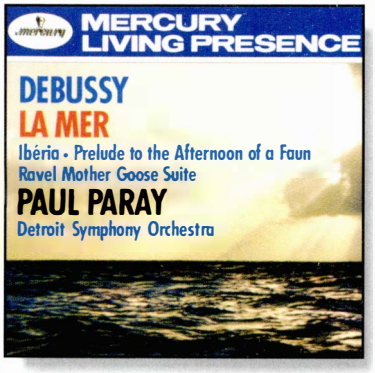
Gilels, Jochum
Berlin PO

DG 447 446-2 (CD)

Although Gilels made many impressive recordings throughout a long and distingiushed career, it's arguable than his accounts of the two Brahms concertos for DG were the high watermark. Apparently he had never played the first concerto in public, yet his performance has immense weight and authority, and he is equal to every emotional nuance in this raw powerful work. Jochum has the Berlin Philharmonic spitting blood (the trenchant orchestral opening tutti is stupendous), and they play like men possessed. The second concerto is equally fine; dark, weighty, rich, and very mature. Gilels had a formidable technique, yet even he sounds stretched at times in what feels like a clash between titanic forces. The experience of hearing a great pianist engaged in the performance of great music, playing to the limits of his technique, is exciting beyond compare. DG's recording is worthy of the playing, and still sounds well despite being nearly thirty years old. Alas, Gilels and Jochum are no longer with us on God's earth, but their collaboration lives on in these priceless discs.

JMH

RECORDING
MUSIC



Debussy, Ravel La Mer; Iberia; etc Ma Mere l'Oye suite

Paray, Detroit SO

Mercury Living Presence 434 343-2 (CD)

It seems safe to say that Atmosphere wasn't high on Paray's list of priorities when he conducted the music of Debussy and Ravel. His tempi are fast, sometimes to the point of brusqueness, and he never lingers over detail. This obviously robs the second movement of Iberia (The Fragrance of the Night) of its sultry languid charm. But the outer movements have plenty of life, and Paray's direct approach certainly makes exciting listening. The same strictures apply to his performance of La Mer; the playing is lively, but the lack of atmosphere tells in the quieter moments - the opening is very prosaic. The suite from Ravel's Ma Mere l'Oye sounds very colourful, with a remarkably vivid tam-tam in Laideronette. Given recording dates of 1955 and 1957, the sound is surprisingly sharp and detailed, with bright forward balances and a rather squashed dynamic range, in typical Mercury fashion. Interesting rather than essential, but well worth hearing nevertheless.

JMH

RECORDING
MUSIC

Beethoven Symphonies 1 to 9

Tonhalle Orchestra, Zurich
David Zinman

Arte Nova 74321 65410-2 5(CD)

David Zinman's Beethoven cycle kicked off in 1977 with taut accounts of symphonies 5 and 6. And now the series is complete, Arte Nova have released the 5CDs in a slip case at a special price (I paid under £20), making it one of the cheapest Beethoven symphony sets ever. Using new Urtext editions of the scores edited by Jonathan del Mar, Zinman offers crisp lively interpretations that brim with energy. Tempi are fast, and textures open and transparent - very much the sort of approach one expect's from Period Instrument bands, but using modern forces. Clarity is excellent, and in almost every symphony you'll hear interesting brass, wind, or string detail. Perhaps there's a lack of weight at times; those expecting Klempereresque gravitas and grandeur, or Karajan's power and sophistication, may be disappointed. This is Beethoven for the new Milenium; fiery and bursting with life. The recordings mirror the performances, being clear, focussed, and very articulate, with natural dynamics and perspectives. No matter how many sets of Beethoven symphonies you have, you'll find things in this one to challenge and stimulate. A truly outstanding set!

JMH

RECORDING
MUSIC

Mendelssohn Symphony No 3 'The Hebrides' overture A Midsummer Night's Dream Excerpts

Maag, LSO

Decca 443 578-2 (CD) (180g)

The LP coupling of symphony and overture Mendelssohn in Scotland was one of Decca's early stereo triumphs, and even after nearly forty years the sound astonishes with its vivid brilliance and excellent separation. True, the upper strings and brass sound a bit fierce, and there's a little tape hiss. This CD mirrors the brightness of early SXL LP pressings, albeit without the extra tonal body achieved on vinyl; I find some treble cut and bass lift improves the bass/treble balance. Otherwise, the 1960 recording wears its years lightly. Maag drew incandescent playing from a clearly inspired LSO, then going through a golden period. And engineer Kenneth Wilkinson, working in London's Kingsway Hall, captured all the excitement and drama on tape. In particular, try the conclusion of the Hebrides overture; it has a surging tactile quality like no other performance. The four MSND excerpts date from 1957, and again the playing is crisp and vividly focussed, with bright open sound. A classic!

JMH

RECORDING
MUSIC

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Marvin Gaye: Forever Yours
Dave Grusin: Two For The Road
Dave Grusin: West Side Story
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James Horner: Titanic (OST)
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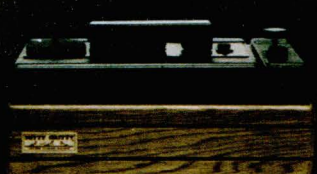

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Aretha Franklin: Lady Soul
B-52's: Time Capsule
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Bee Gees: Still Waters
Bee Gees: One Night Only
Bela Fleck: Left Of Cool
Bob James: Playin' Hooky
Carly Simon: Boys In The Trees
Carly Simon: No Secrets
Carly Simon: Spy
The Cars: The Cars
Chet Atkins: Almost Alone
Chris Isaak: Baja Sessions
Dave Brubeck: Time Out
Dire Straites: Sultans Of Swing
E.Costello & B.Bacharach:
Emmylou Harris: Wrecking Ball
Grateful Dead: Best Of 77-95
Jewel: Spirit
Joni Mitchel: Mingus
Joni Mitchel: For The Roses
Joni Mitchel: Hejira
Joni Mitchel: Hits
Keb Mo: Slow Down
Nanci Griffith: Blue Roses
Roberta Flack: Killing Me Softly
Otis Redding: The Dock Of The Bay
Todd Rundgren: With A Twist
Stephen Stills: Manasas
Stephen Stills: Stephen Stills
Dar Williams:End Of The Summer
Lucinda Williams: Car Wheels
Neil Young: Broken Arrow
Neil Young: Dead Man (OST)

AUDIOPHILE MAIL ORDER COMPANY

VINYL HOLD-OUT

by Roy Gregory

Coup d'Archet

Johanna Martzy was born in 1924, and played the violin from the age of six. She studied under the famous Jeno Hubay in Budapest. She toured at the age of 13 and won the 1947 Concours International d"Execution Musicale in Geneva. By 1954 she had a recording contract with the powerful EMI Columbia label, under the direction of the autocratic Walter Legge, and as the decade drew to a close her star shone brightly in the classical firmament. She was a popular performer with a tremendous following across the continent, and divided her time between Scotland, where she played with the SNO, and her home in Geneva.

The late fifties was an exciting time for the classical musician. The advent of stereo created an upsurge of interest in recordings, and many great conductors, orchestras and soloists were at the height of their powers, which makes Martzy's subsequent disappearance all the more surprising. And yet the few people in Britain who recognised her phenomenal talent have seemingly forgotten it, consigning her memory to cult status, and transforming her few recordings into rare and expensive collectors items.

It seems that Legge's interest was rather more than purely professional, and when Martzy rejected his advances, it brought her contract to a premature close. (She was far from the only female performer to suffer in this fashion!) Marriage to an affluent second husband soon followed, relieving her of the necessity to entertain the disagreeable prospect of repeating her unfortunate experiences at EMI, and whilst she continued to perform (to great acclaim), she was never to sign another recording contract. Without a record company to promote her she faded from prominence, and by the time she died in 1979, the record buying public barely noticed her passing.

However, a small but vocal core of dedicated enthusiasts has survived, and continues to flourish. EMI finally bowed to public pressure in Japan and in 1993 re-released the complete Martzy recordings on CD. But the most remarkable example of her ability to inspire a listener is the record label Coup d'Archet. Six years ago, founder Glenn Armstrong chanced across a Martzy disc of *Bach Sonatas,* and captivated by the playing, has been fascinated by her ever since. His odyssey started with a search for more recordings, and he soon discovered their rarity and began to uncover the circumstances behind it. Circumstances which have robbed so many listeners of the chance to enjoy an arresting talent. He began work on a biography (which he still plans to publish), and it was in the course of his research that he began to unearth other tapes of Martzy performances, buried in the archives of radio stations for whom she'd made live broadcasts.

These tapes offered the opportunity to extend the meagre Martzy catalogue, and at the same time, place her talent once more in the public eye. Despite discussions ▶

Beethoven: Sonatas for Violin and Piano Opus 47 'Kreutzer' and Opus 30 No3

Johanna Martzy, Jean Antonietti

Coup d'Archet 003 180g CD

Two recordings from the fifties, these highlight the particular nature of Glen Armstrong's work. The Kreutzer tape dates from 1956 and was made at 15ips by Bayerischen Rundfunks in Munich. Sonically it is a tour de force. Opus 30 No3 was recorded in 1951by Radio Suisse Romande, but the tape was only running at seven and a half ips. Clearly, it is no match for the BRF recording, but despite that Glenn took the brave decision that it was an important enough musical and historical document to warrant release. He was right. Here we have two of Beethoven's greatest Sonatas given absolutely first class performances.

Sound on the *Kreutzer* is superb; rich and sonorous yet full of vitality. The instrumental balance is spot on, partly a function of the recording, and partly the innate understanding of the two performers, with no tendency to highlight the violin and in turn undermine the architectural role of the piano. That balance is all important to these sparse yet complex works, and the tendency for star violinists to showboat has marred most of the available recordings. But Martzy's playing is inspirational. Her almost telepathic understanding with Antonietti (himself another Legge victim) brings the music to the fore, clear and purposeful, open and engaging. She has an emphatic quality which combines great power with delicacy and control. It is almost as if the music is channelled through her instrument rather than coming from it. She never stands in its way or draws attention to herself.

Comparison to the highly regarded Perlman / Ashkenazy recording reveals the depth of Martzy's understanding with Antonietti. Their timing and interplay is breathtaking. That chemistry elevates this performance right to the top of the heap, with sound to match.

The playing on *Opus 30 No3* is just as good despite a lack of immediacy and dynamic contrast from the tape. Fortunately it's a more reflective work, and whilst you'll notice the change from the Kreutzer, you soon adjust as you are drawn into the music.

These are quintessential classical pieces and deserve a place in any collection. Because of that there has been no shortage of recordings, but this is my favourite. Expensive? Yes, and you could always buy Mutter or Kennedy's latest offering, but what price a disc you'll only play once? My Martzy Kreutzer is rapidly approaching half-life.

Beethoven: C Minor Trio Opus 1, No3
Dvorak
E Minor Trio Opus 90 (Dumky)

Johanna Martzy, Istvan Hajdu, Paul Szabo.

Coup d'Archet 004 180g CD

I chose this release as an example of Coup d'Archet's creative approach to their art, and also as a contrast to an accepted audiophile recording. Both these pieces are too long to fit on a single LP side, but at around 30 minutes they make for an expensive album if you spread them over two. Glenn Armstrong decided to revive the ten inch format as a more cost effective way of presenting them. Thus, this is a double ten inch disc, although vinyl weight is equivalent to a 180g LP.

The *Dumky* was Dvorak's last composition, and its combination of traditional folk themes and his impending mortality make it a serious work, but one with great contrasts and dynamic swings. This probably played no small part in Wilson Audio's decision to record the piece and issue it on their own record label. The Coup d'Archet recording dates from 1969, and was made by WDR in Cologne. The contrast couldn't be greater. Clearly the mono recording can't provide the explicit instrumental separation of the Wilson disc, but its musical coherence is so much greater that instrumental identities are never in doubt. Combine that with the far superior playing on the mono disc, and the consequent sense of solidity and purpose, and there's no contest. It's got better surfaces too!

This is an older and wiser Martzy whose instrumental voice has lost none of its power but has gained in grace and subtlety, qualities that become even more apparent within the more formal confines of the Beethoven. Again the ensemble playing is first class, and both performances are a joy.

with existing audiophile and mainstream labels, it quickly became apparent that the only practical way to do this was to issue them himself. Thus was born Coup d'Archet, a record label dedicated to the work of those string players - many of them women - whose success was in no way commensurate with their talents. Not just Martzy, but artists like Guila Bustabo, Camilla Wicks or Gioconda de Vito, all of whom have faded from current listings of great violinists, dominated by the likes of Heifetz, Menuhin and (God help us) Anne-Sophie Mutter, Nigel Kennedy and Vanessa Mae!

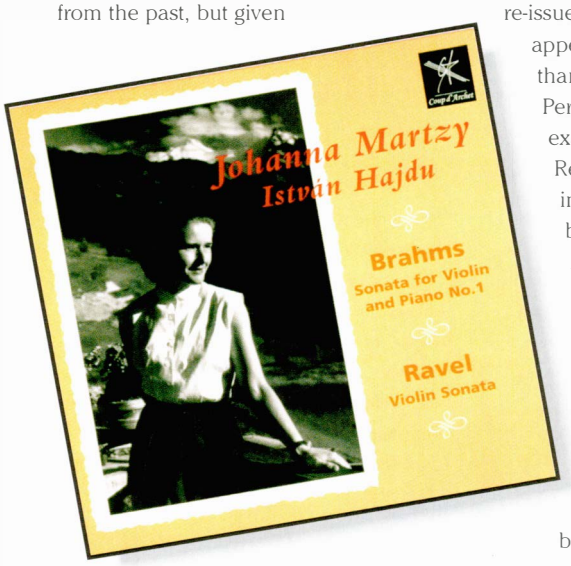
Whilst Coup d'Archet issue all their releases on CD, it is their vinyl records which really reveal the passion behind this project. Lacquers are cut at Abbey Road, and the 180g virgin vinyl discs are pressed at EMI's Hayes plant. The heavy sleeves are of course original designs, these recordings never having been previously available, but their clean simplicity is perfectly in keeping with the historical nature of the performances. There is even a double ten inch LP of Beethoven and Dvorak trios. Now this is a real stylistic blast from the past, but given the length of the works, this unusual format was the only way to give them each sufficient groove space within a single issue, and save the collector the cost of two separate (and very short!) LPs.

They could have been done as a double 12", but I really like the unusual format, and it seems somehow appropriate given the historical nature of the recordings.

Another thing that separates these records from more run of the mill audiophile re-issues is the ethos behind them. Granted, there are certainly similarities, but it seems to me that the vast majority of classical re-issues depend on the recording appearing on the TAS list rather than any intrinsic musical value. Perhaps the most extreme example of this was Classic Records shameful decision to include the hi-fi spectacular but musically mundane *Hi-Fi a la Espanola* and *Balalaika Favourites* on a Mercury release list which ran to all of six titles. Sonics uber alles!

Coup d'Archet may be releasing recordings from a collectable performer, but they're not just making rare records more accessible, they're actually expanding the catalogue. And the decision is definitely musically driven. Another Martzy peculiarity is that although the radio station tapes were recorded as late as 1972, they are all in mono. And they vary in quality too, depending on the station involved. But don't let that put you off. When they're good they're sensational. The 'stereo snobs' are going to miss out on a musical feast. The thing that holds these records together is Martzy's phenomenal playing. That, and faultless transfers to high quality vinyl, make these LPs to covet.

Plans exist to add another two Martzy titles to the six already produced, but Glenn Armstrong is already pursuing alternative artists, and having sampled some of the possible pleasures in store, I can't wait to see how the project develops. I could appeal to your charity, and ask you to support Coup d'Archet as a worthy cause. As it is, I don't have to. These records are so damned good, and the playing so exceptional, that you are a fool if you don't try them.



Coup d'Archet can be contacted at:

PO Box 1306
Bristol
BS99 - 2GG
Fax. (44)(0)117-973-5233

Coup d'Archet recordings are available from:

LP Classics
Tel. (44)(0)115-910-7714
Fax. (44)(0)115-910-7715
Web. www.lpclassics.co.uk

LP $25, Dbl 10" $30, CD $15.
All plus p&p.

Ray Charles & Cleo Laine

Porgy & Bess

Classic Records JP-1831 180g 3

Louis Armstrong and Ella Fitzgerald's version of 20 years earlier remains the definitive jazz treatment of *Porgy & Bess*, but this is a worthy alternative.

Why doesn't this stack up to the earlier version? Well, I don't think there's quite the same empathy between the two. Undoubtedly great singers in their own fields, they just don't convey the same sense of joy that Armstrong and Fitzgerald managed. Nor is either vocalist best suited to every number they're called on to sing.

OK, that's the negatives out of the way, now what about the positives? When Ray Charles gets into his stride he's a delight. Cleo Laine is also on great form. The duo's take on 'Summertime' is, unsurprisingly, worth the price of admission on it's own. I also particularly enjoyed the instrumental breaks from Ray Charles, accompanied by an ace rhythm section. These could sit as happily on any of Charles' best albums.

The sound quality is good with vocals well projected although a little larger than life. The backing band and orchestra are well presented with silky string tones and good placement across the stage.

All in all this is yet another commendable re-issue from Classic and whilst it doesn't quite match Armstrong and Fitzgerald, it's readily available!

Supplier: Vivante

DD

RECORDING

MUSIC

Rachmaninov Symphony No. 2

Leonard Slatkin, St Louis Symphony Orchestra

REFERENCE MASTERCUTS RM 1002 180g

This expansive, lyrical composition, with its frequent climactic outbursts, lends itself to an audiophile repressing. Here, Doug Sax presents an impressive "real time" vacuum-tube direct master from the original Vox quadraphonic tapes by using the main (front) two channels only.

It faces some stiff competition from a reissue of the famous Previn/LSO performance, but as I've yet to hear Testament's re-cut, comparisons were made against an original EMI (ASD 2889) LP which after twenty five years still remains the benchmark by which all other Rach. 2s are judged.

Slatkin and the SLSO deliver an affectionate, perceptive and smooth reading. If I did not know the EMI disc so well I could happily live with them alone. However, Previn's empathic interpretation has unequalled passion, romance and melancholy, and it is played to perfection by an orchestra that had made this symphony their own.

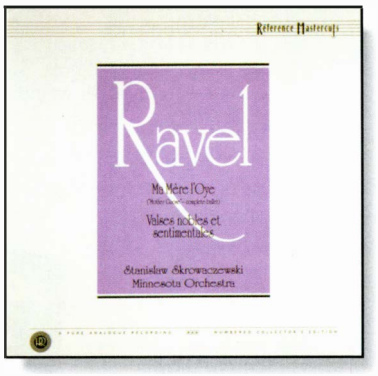
Sonically, the recordings suit the performances. Reference's Mastercut has tremendous warmth, and its extensive and detailed soundstage richly enhanced eloquent instruments like the solo clarinet of the slow movement. Whereas EMI produce a more incisive and vivid sound where strings (especially the cellos) resonate.

Supplier: Vivante

RP

RECORDING

MUSIC



Ravel: Ma Mére L'Oye, Valses nobles et Sentimentales

Stanislaw Skrowaczewski, Minnesota Orchestra

REFERENCE MASTERCUTS RM 1004 180g

Ravel, Skrowaczewski and Reference are an irresistible combination. This release and its companion disc of Ravel's orchestral pieces (RM 1001) are interpretations as good as any available. Ideal speeds, superb phrasing, and subtle variations in texture and colour signal a conductor's art at its confident best. The Minnesota playing is individually excellent, and these are spirited performances.

Orchestra Hall, Minneapolis can be a sublime recording venue and once again Doug Sax works a special brand of magic on these limited edition LPs. His direct re-master from the 1974 tapes produces a characteristically wide-ranging soundstage where transparency and instrumental accuracy are very good. Listen for the piquant flute entry of the *Ma Mere* prelude and an impressively ample bassoon later in the ballet.

Valse Nobles is an equally mouth watering proposition. A sumptuous score is treated to the same sun-drenched ambience, and the rhythmic freedom and frequent changes of tempo appear quite seamless. Recording balance is so natural that you could easily be forgiven for thinking that this record is one of the Professor's own efforts. While the swirling dances of *Apotheose* confirm the presence of true bass extension and a beguiling depth of richness in the string tone.

Supplier: Vivante

RP

RECORDING

MUSIC

Beethoven: Egmont O.P. 84 Complete Incidental Music

George Szell, VPO, Pilar Lorengar, soprano.

DECCA SXL 6465 180g

Any complete recording of this music for Goethe's melodrama was always likely to suffer from the intrusive nature of the narration which intersperses a performance of this work. Even an orator of Klausjuergen Wussow's conviction will not, alone, encourage renewed listening. Fortunately, a brilliant Szell reading accompanied by the sympathetic contribution of his VPO musicians and singing of rare emotional intensity from Pilar Lorengar, redeem Speaker's Corner's unexpected choice of repetoire.

Egmont's heroic resistance against a tyrannical Spanish occupation of the Netherlands is an allegorical tale of love, impetuosity, imprisonment and victory, during which the orchestral playing dynamically shifts between crescendo and decrescendo to mirror an unfolding tableau. This recording attractively handled the ebb and flow of woodwinds, strings, brass and percussion; yet its transfer (although competently engineered) lacks the punch of earlier releases from this source. A genuine curate's egg of an LP, where shortcoming in the composition and the re-master are papered over by the tremendous talents on display. If they are not enough then at least the libretto will give you an ample opportunity to brush up your German. Read. Listen. Repeat after Wussow!

Supplier: Vivante

RP

RECORDING
MUSIC

Glazunov: The Seasons - Ballet O.P. 67

Albert Wolff , Paris Conservatoire Orchestra

DECCA SXL 2141 180g

The original LP is one of my favourite versions of this picturesque work. Of the others, Ansermet's later 1967 Decca account (SXL 6269) was better recorded; while the Moscow Radio Symphony (under the baton of Boris Khaikin) gave an electrifying and typically Russian performance for EMI/Melodiya (ASD 2522). However, Wolff's fond and often enchanting approach to Glazunov's richly textured orchestration, strikes a happy medium between these interpretations. His PCO musicians warm to the task, teasing out a kaleidoscope of colours, whose changing patterns perfectly match subtle variations in each of the seasons. They also reserve a suitably enigmatic tone for those imaginary creatures which populate this tenuous tale. Yet their dexterity, energy and sheer exuberance still stylishly bring to one's mind the lively dances present in the ballet.

Technically, the re-master is a considerable improvement. Cutting at a higher level has brought instruments sharply into focus. The strings bite; percussive notes shine out like beacons; and crisply delivered flutes, clarinets 1and horns have far more body. Gains in transparency and an overall sense of space make the original record sound portly and quite sluggish by comparison.

Supplier: Vivante

RP

RECORDING
MUSIC

Elgar: Cello Concerto and Sea Pictures

Du Pre, Baker, Barbirolli, LSO

Testament/EMI ASD 655 180g

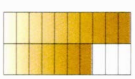
Long overdue, one of the jewels in EMI's crown finally gets the reissue treatment. Du Pre's empathy for the Elgar is legendary, and the emotional power in her performance is so focused as to have an almost physical presence. Barbirolli provides the surest support, neither swamping his soloist, nor robbing his orchestra of power and impact. This is a performance which demands your attention, and simply sweeps you away.

The testament reissue lacks the incredible immediacy and vibrant presence of early originals, and the cover is an absolute travesty. The photographs are so heavily grained that they look like they were scanned on a home PC! That aside, the 180g pressing is absolutely flat and silent (which is more than can be said for most of my secondhand copies), and whilst it might not scale the dizzy heights of the best originals, it's still one hell of a record, with a rather more natural scale to the cello. If your old copy is feeling its age then this is an excellent replacement. If you don't own a copy, then shame on you, and buy one immediately. You'll not regret it.

Supplier: Vivante

RG

RECORDING
MUSIC



LP Mastering - what makes a good LP?

by James Michael Hughes

God is supposed to have created all men equal. Unfortunately the same cannot be said of LP records! I'm not just talking about differences in recording quality; of course, some recordings sound better than others. I'm thinking of mastering quality, and how faithfully an LP mirrors the master tape from which it was cut.

Mastering standards can vary enormously from one disc to another, with much depending on who cut the record and where it was pressed. Enthusiast audiophile collectors naturally want to obtain the best sounding copy of a particular LP. But how do you tell good from bad without listening and comparing first? What are the visual clues that indicate good pressing and mastering quality?

It takes experience, but there are things that tell you where a disc was cut and who pressed it. Once you know what to look for, you can hopefully avoid poor LPs. But alas, visual inspection isn't infallible; you won't know exactly how an LP sounds until you actually play it.

Nevertheless, with experience it should be possible to predict the quality potential of an LP with reasonable certainty once you know what to look for. So examine your records carefully and try to interpret the way the grooves look. Notice the 'look' of good sounding LPs in your collection, and contrast them with those that sound poor. See if you can isolate distinguishing characteristics.

As we approach the end of the millenium, LP manufacture (aside from a few specialist concerns) has virtually stopped. Therefore, the luxury of being able to choose between different pressings of a given LP no longer exists. Faced with a secondhand copy of a wanted album in reasonable condition, sometimes you can't afford to be too fussy.

You might count yourself lucky just to be able to buy the record; rejecting it because it wasn't pressed in a certain country, or from the 'proper' metalwork, might mean doing without that LP for years while you search specialist shops hoping to find a better copy.

So try not to be too discriminating or prejudicial; by setting excessively high standards you may inadvertently reject some good sounding discs. At the same time you clearly want to avoid records that aren't well cut and pressed - there's no point buying rubbish just for the sake of adding a particular album to your collection, unless of course it's music you must have, or something rare and unusual.

So what do you look for? When most people examine an LP prior to purchase, usually they're looking for signs of damage - scratches, pressing faults, evidence of groove damage, dirt and finger marks, warping and dishing. I look for these things too, but I also look at the grooves to see how 'deep' they are, and how heavy the modulation is. Do the surfaces have a nice bright shiny quality?

If it's a pop album, I always look to see if there are any engineering credits on the sleeve, and whether or not a disc mastering engineer is listed. If there is, I look to see who, so I can check the pressing for his trademark. I want to know if the LP I'm holding is actually pressed using stampers taken from lacquers originally mastered by the cutting engineer credited.

Suppose the sleeve says the album was 'Mastered at Sterling Sound, New York'; I want to know if the disc in my hand is actually pressed from their metalwork. It might not be if the LP in question is pressed in a country different to where the music was recorded and/or the record company is based.

As a sweeping generalisation, the 'best' copy of a particular LP is usually one manufactured in the country where the record company is based. So, if we're talking about an American company like WEA, then (generally) it's the American pressed album that sounds best - best, because it will definitely have been pressed from metalwork mastered by the credited cutting engineer.

Quite often, American record companies like WEA, RCA, CBS/Sony, etc, re-cut LPs for the European market and (imports aside) press them ▶

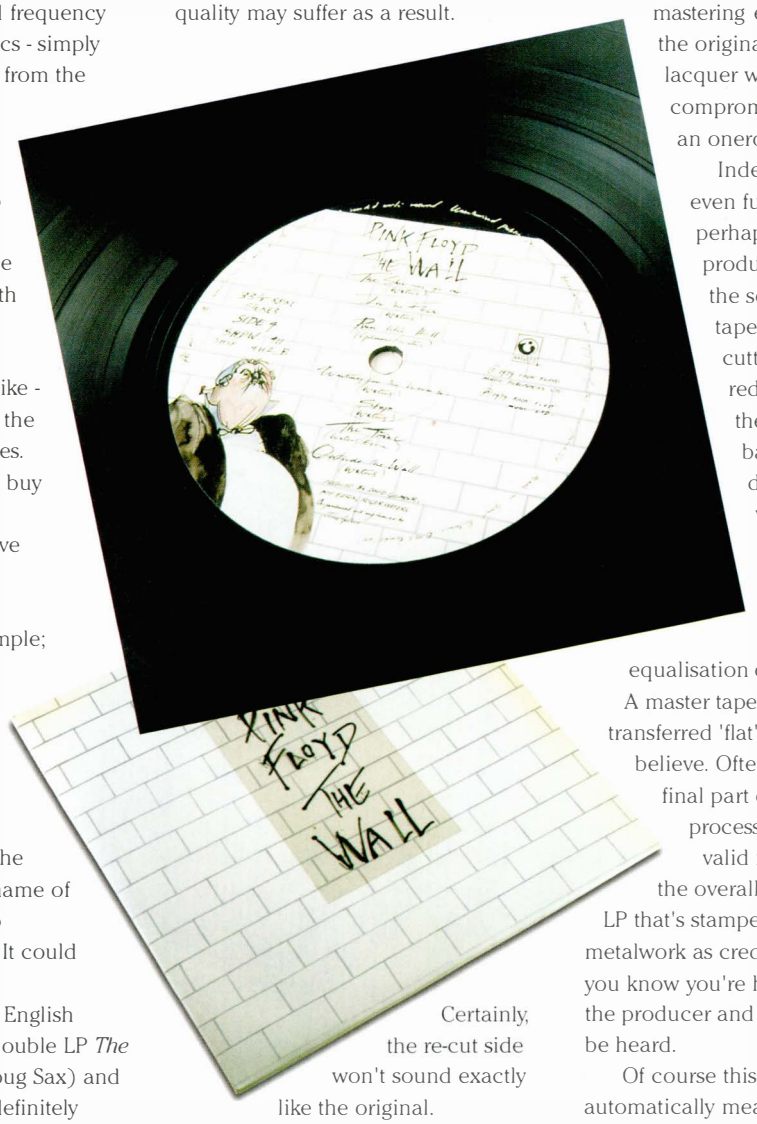
locally. This doesn't necessarily mean the sound will be poor or the pressing quality rough - indeed, European vinyl is often quieter and smoother than American vinyl. But it's likely the American pressing will sound slightly louder, with an extended frequency range and better dynamics - simply because it was mastered from the original tape and not a copy.

It's fairly rare for a classical record sleeve to credit the person responsible for cutting the LP, but quite common with pop/rock albums. If you read the sleeve credits, often it'll say something like - Mastered by Doug Sax at the Mastering Lab, Los Angeles. Unfortunately, the LP you buy in countries other than America may actually have been cut by someone else entirely.

How can you tell? Simple; virtually all independent disc mastering studios identify their work, putting some sort of trademark sign in the blank vinyl close to the centre label. It might be the engineer's name, or the name of his company. If there's no indication be suspicious! It could mean the teaboy cut it...

Suppose you've got a English pressing of Pink Floyd's double LP *The Wall* (originally cut by Doug Sax) and you want to check if it's definitely pressed from his original American metal work. If you see the initials TM-L stamped in the vinyl, your LP is taken from Mastering Lab metal work. If you can only see the record number, probably the disc has been re-cut using a copy of the original master tape.

It's essential to check both sides for these initials; sometimes a stamper may be damaged in the pressing plant, and a fresh side cut locally. However, because the original master tape is elsewhere (probably locked in a vault somewhere in New York), the new side will mastered using a copy tape. Sound quality may suffer as a result.



Certainly, the re-cut side won't sound exactly like the original.

Yet there's a danger of reading too much into such things; a great deal depends on the nature of the original recording and how good the copy master is. If it's been transferred to half-inch tape running at 76cm/s, chances are it'll sound very close to the original. There's also the question of personal taste, and what you define as good sound.

The original mastering should be best because the engineer chosen to cut an important LP release is a vital part of the production team and his work is supervised and OK'd by artist and producer. It falls to the mastering engineer to transfer the original master tape onto a lacquer without compromising sound quality - an onerous task.

Indeed, sometimes it goes even further than that; perhaps the record producer is unhappy with the sound on the master tape, and hopes the disc cutter can eliminate (or reduce) problems with the mix or with tonal balance. Usually the disc cutting engineer works with the producer during mastering, advising on things like equalisation or compression.

A master tape isn't automatically transferred 'flat' as hi-fi purists might believe. Often, cutting an LP is the final part of a long creative process - and anything is valid if it improves the overall sound. If you buy an LP that's stamped from the original metalwork as credited on the sleeve, you know you're hearing the music as the producer and artist intended it to be heard.

Of course this doesn't automatically mean all listeners will agree that the original mastering sounds best. Usually, an American pressing sounds sharper and more forward than the re-cut European version. But some listeners prefer the latter because it's smoother and mellower. If your system sounds very bright and immediate, this extra sharpness may not be a good thing.

Even in situations where

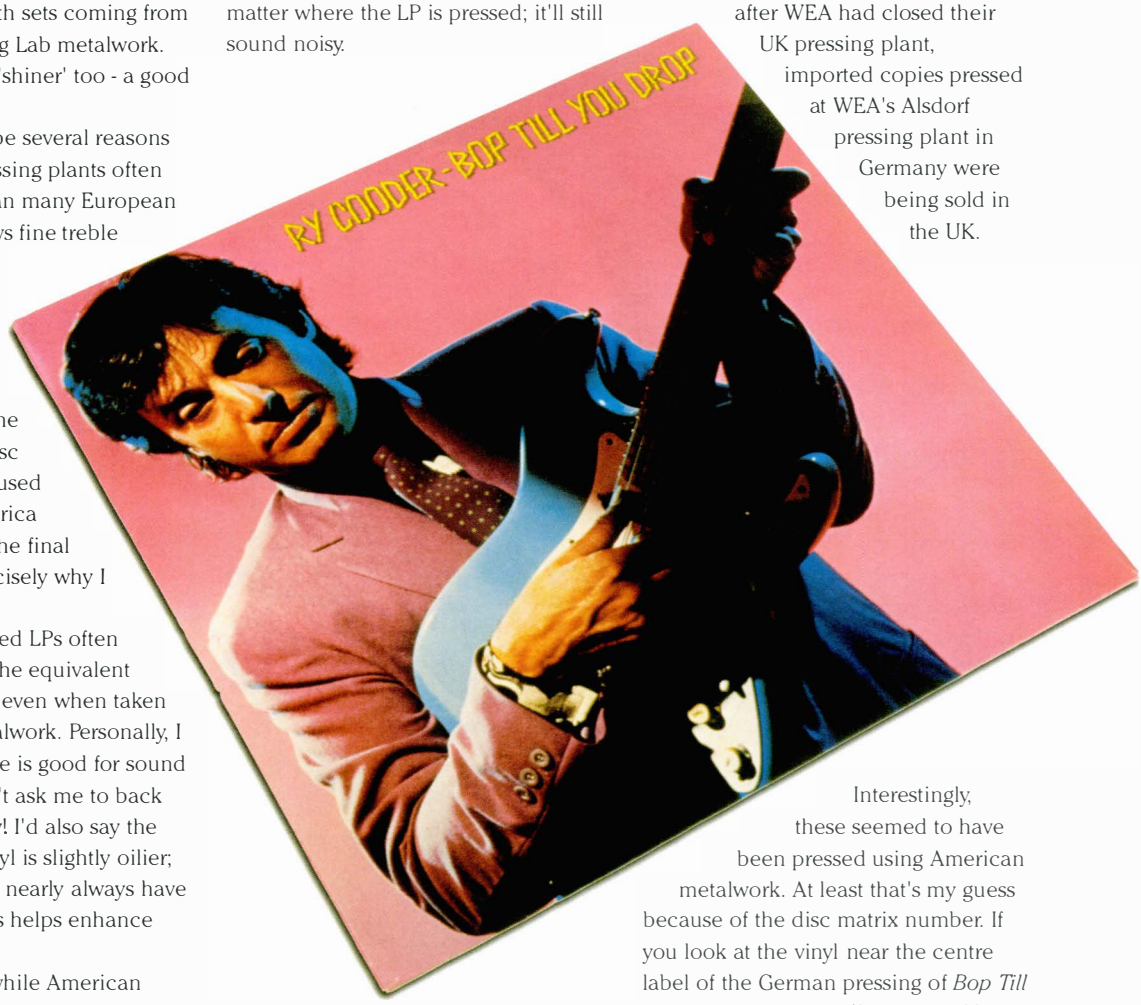
American and European copies of the same LP are pressed from identical stampers, often the LP pressed in American sounds that little bit sharper and more immediate than its European counterpart! I have two copies of *The Wall* - UK and US - and the latter definitely has a brighter sharper tonal balance despite both sets coming from the same Mastereing Lab metalwork. The US copy looks 'shiner' too - a good sign in my book.

There seem to be several reasons why; American pressing plants often use harder vinyl than many European ones, and this allows fine treble modulations to be engraved more positively leading to more extended high frequencies. Also, the different types of disc pressing machines used in Europe and America seem to influence the final sound - though precisely why I do not know.

American pressed LPs often look 'shinier' than the equivalent European pressing, even when taken from the same metalwork. Personally, I think a shiny surface is good for sound quality, though don't ask me to back this up scientifically! I'd also say the softer European vinyl is slightly oilier; American pressings nearly always have a drier feel, and this helps enhance treble sharpness.

Unfortunately, while American pressed pop LPs often sound impressively sharp and immediate, pressing quality (quiet surfaces free from ticks and pops) is not as good as in Germany or Japan. This is partly due to the use of purer quality virgin vinyl in Europe, and also to the fact that American vinyl, because it's harder, is more prone to noise - softer vinyl seems to give a quieter smoother background..

A German or Japanese pressed LP taken from American metalwork hopefully offers the best of both worlds - clear sharp sound and a nice quiet pressing! However, don't overlook the fact that surface noise problems can occur during the electroplating process that the lacquer goes through after it's cut. If this happens, it doesn't matter where the LP is pressed; it'll still sound noisy.



Not all rock LPs are cut by independent mastering engineers who always initial their work. Take Ry Cooder's 1979 Warner Bros LP *Bop Till You Drop.* This was one of the very first pop LPs to be digitally recorded. So it would be important to have a pressing taken from the original American metalwork, as copies re-cut in other countries would almost certainly be mastered from an analogue copy tape dubbed from the original digital master.

In the UK this is exactly what happened; early copies were cut at Strawberry studios (look for 'Strawberry' pressed into the vinyl near the disc label) using analogue copy tapes. Some years later, in the mid '80s after WEA had closed their UK pressing plant, imported copies pressed at WEA's Alsdorf pressing plant in Germany were being sold in the UK.

Interestingly, these seemed to have been pressed using American metalwork. At least that's my guess because of the disc matrix number. If you look at the vinyl near the centre label of the German pressing of *Bop Till You Drop* you'll see R/S Alsdorf 56691 A - this being the European catalogue number (WB 56691), with A indicating side one.

However, opposite this is another number written by hand - BSK-1-3358-GER-E. BSK-3358 is the American catalogue number. Therefore, Holmes deduces this German pressed LP is actually taken from American metalwork. I've seen a Japanese pressed copy and it had the same

▶ BSK 3358 number written in hand, indicating identical metalwork.

The Japanese pressing may well sound slightly different to the German version, but both LPs should be pretty close - though as already indicated, differences in vinyl smoothness/hardness and the kind of pressing machine used, all influence the final sound. For example, American LPs often seem to have slightly deeper grooves compared to European pressings taken from the same metalwork.

For some reason, American disc mastering engineers nearly always write disc matrix numbers by hand, whereas Europeans and Japanese usually prefer to use a letter punch. In situations where you have a European pressing of an American album (or one said to have been cut in the USA), and you've two differing sets of matrix numbers - one stamped, the other hand written - this may indicate that the disc has been pressed from American metalwork.

But, although all this is fascinating, don't get too carried away it. Of course it's instructive to read matrix numbers, but always keep in mind that you can only tell how an LP sounds by listening to it. If you don't like the sound of a particular pressing, does it matter if it was taken from metalwork approved by the original engineer and producer?

I once read an article in America's The Absolute Sound magazine where a reviewer compared UK and US copies of David Bowie's album *Let's Dance*. He prefered the UK LP because it sounded smoother and less sharp than the US pressing. The latter is arguably 'better' in the ways I've just outlined, having been cut at New York's Masterdisk cutting lab from the original tapes. But the TAS reviewer didn't like it... Me? I coughed up a small fortune to get *Let's Dance* as a US import!

Being able to inspect an LP and correctly interpret the various clues imprinted on its surface is not an infallible way of predicting sound quality. But once you know what to look for and gain experience, it should help you make the right decision, especially in situations where you're trying to decide between two different secondhand pressings of the same LP prior to purchase. So start looking at your records, and learn how to interpret the signs!

Some Cutting Studios and their trademarks

USA

MASTERDISK *New York*
based cutting studio of the same name - very good

Sterling Sound *New York*
based - very small logo, hard to see - very good

TML *Los Angeles*
The Mastering Lab, headed by Doug Sax in - very good

Mastered by Capitol
Division of Capitol Records - not independent, but good to very good.

Columbia *New York*
Columbia records - not independeant, but good to very good.

Precision Lacquer
Independent cutting studio, Steven Marcussen - very good

Trumpet logo
Bernie Grundman - very good

UK

Townhouse
Townhouse studios - usually very good

Tape One
UK independant; often stamped Bilbo Tape One - good to very good

Penthouse
Abbey Road studio's independant mastering suite - good to very good

A Porky Prime Cut
George Peckham - okay, not great.

Strawberry
Strawberry studios - okay, not great.

Nimbus England
Outstanding cutting and LP pressings - stopped in mid '80s.

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hi-fi+ Competition Coupon Issue 2

Competition

Win **£1000** worth of audiophile LPs or CDs of your choice from

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You've had a while to consider the questions which appeared in Issue 1, and probably do a bit of research. Now you get the entry form and the tie breaker. But first, let's just run over the rules and the prize.

So what do you win for all your effort? You get to select £1000 of audiophile records or compact discs from the Vinyl Demand catalogue. So you get to choose your prize, and you end up with something you actually want, not a piece of kit that simply ends up in the second hand ads! Which is why we made you work for it.

In the first issue, there are three sets of questions on classical, jazz and pop music. You need to answer one set only (which ever you like). Enter your answers on the entry form overleaf, and then fill in the tie break answers, your name, address, and a daytime phone number. You must send your entry on this form, or if you don't want to cut the page out of the magazine, then photocopy the form and staple the Audiophile Competition Coupon from the top right hand corner of this page to your copy. Entries which aren't on the proper form, or don't include the coupon will be eliminated.

The competition is open to anybody who doesn't work for Vinyl Demand or hi-fi+, and the judge's decisions are final (that's me!). Readers outside the UK are eligible to enter, but may have to contribute to the shipping costs of having their prize delivered. Don't worry, it will still be more than worthwhile. Closing date for the competition is 31st August 1999. If you need a copy of the questions, Issue 1 is still available from dealers and ourselves.

Entry Form

Competition Catogery _____

1) _____

_____

2) _____

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4) _____

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6) _____

7) _____

8) _____

9) _____

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Entry Form Continued...

10) _____

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11) _____

12) _____

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13) _____

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16) _____

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18) _____

19) _____

20) _____

Tie Break

Which Album would you most like to see re-issued as an audiophile disc?

_____

Which album would you least like to see re-issued as an audiophile disc?

_____

Details

Name _____

Address _____

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Telepone No. _____

Nordost Pulsar Points

by Roy Gregory

Consider for a moment, what happens when a musician plucks a string. The resulting vibration creates a pulse of acoustic energy which can be defined in terms of the pitch of the note produced, but which also contains other information about the string and the way it was excited. On the one hand there's the question of maximum amplitude (the volume of the noise

produced), whilst on the other, and generally at far lower levels, are the various harmonics to the fundamental. Add to these any technique which the musician may choose to apply, and he can influence the attack or decay of a note, as well as its length or emphasis. In short, a great musician can effect the character of each and every note that he or she might play, which will in turn alter the shape of the energy pulse produced.

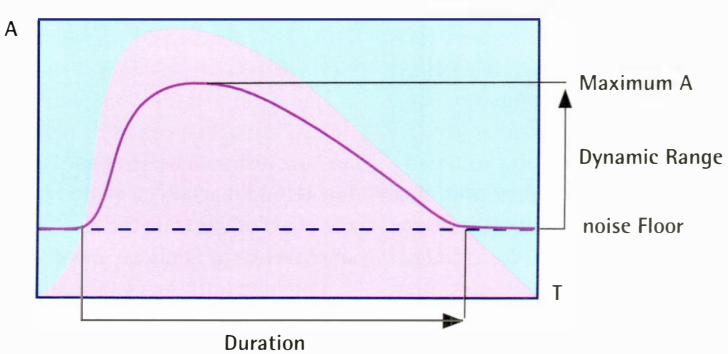
A hi-fi system attempts to precisely recreate the acoustic energy of not just one note, but many, often simultaneous or overlapping notes. Clearly, any spurious energy which pollutes the signal will confuse or muddle the fragile pattern of energy parcels which we are trying to preserve. Changes within the energy structure of the music can stem from two causes; internal losses or distortions within the system, or intrusive energy from outside (not least the acoustic output of the speakers themselves).

Even the most efficient hi-fi systems suffer serious internal losses, and at best we can try to keep them even across the frequency band. However, the dynamic range of signals is always curtailed, reducing the maximum amplitude of a note, and the speed with which it is achieved. Additionally, components such as transformers and loudspeaker drive units also produce vibrations which modulate other components, effecting the accuracy of the signals they transmit.

Add to that, low-levels of mechanical interference from outside, and it is clear why what a piece of hi-fi sits on influences its performance. If you look at the second diagram you'll see that energy losses and pollution can reduce dynamic range, low-level information (including harmonics), and the actual start time of a note. It's

amazing that we can recognise anything at all.

Under the circumstances, it's hardly surprising that there are a whole range of products, from furniture down to spikes, which all seek to sink energy out of components, and prevent outside influences getting in. The latest devices to arrive chez Gregory are natty little cup-and-cone feet from Nordost, called Pulsar Points. Each one consists of an upward facing cone, machined into a recess in the top of an aluminium hemisphere. On this you sit a short cylinder of the same metal, with a conical rebate in its bottom, and with either an M6 or M8 threaded hole in the top (studs are available to allow you to use Pulsar Points in



Nordost Pulsar Points

by Dave Davies

These little (well not so little actually) aluminium gems are an interesting but complementary departure for cable manufacturer Nordost. Having been more than impressed with their cables, I eagerly shoved these under the Rega Jupiter reviewed elsewhere in this issue.

Disappointment wasn't my expected reaction, but boy was I disappointed! The Pulsar Points made the Rega sound thin and edgy, bringing no benefits to the fore. Then I counted to 10 and realised that the Rega was designed very much as a total system, part of which are the proprietary de-coupling feet. Anything that stood between these and the Rega's support would compromise the performance. Hastily removing the Rega and popping the Nordosts under my Meridian 506 allowed them to give of their best.

A slightly boomy quality in the lower mid and bass of the Meridian was removed and the top end was also crisper and cleaner. The overall effect was to remove a veil from the performance, improving on the minor failings of the player and allowing that much more musical detail through. So much so that the only disappointment I now experienced was when Roy reappeared some weeks later and snatched back the review set. Something tells me I'll be purchasing some. Should you? These are definitely a suck it and see product, so try before you buy. But be prepared to fork out the dosh, because when they work, you won't want to give them up.

Distributor.

Nordost (UK) Ltd
1st Floor, Unit 7
Aber Park Ind. Estate
Aber Rd, Flint, Clwyd
CH6 5EX

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Fax. (44)(0)1352-731273
Web. www.nordost.com

place of speaker spikes). Sit the cup upon the cone and it wobbles alarmingly until you weight it, when it stabilises on its single contact point. These things are always a bitch to describe, so just look at the picture to get a better idea of what I'm on about. It will also show you how the final structure takes on a rather elegant appearance. Very Scandanavian chic, which is hardly surprising as Pulsar Points sprang originally from the fertile imagination of Lars Kristensen, Nordost's Danish set-up guru, and designer of the Aavik hi-fi tables. The concept has been considerably refined by the Nordost design team, who have also taken over the marketing.

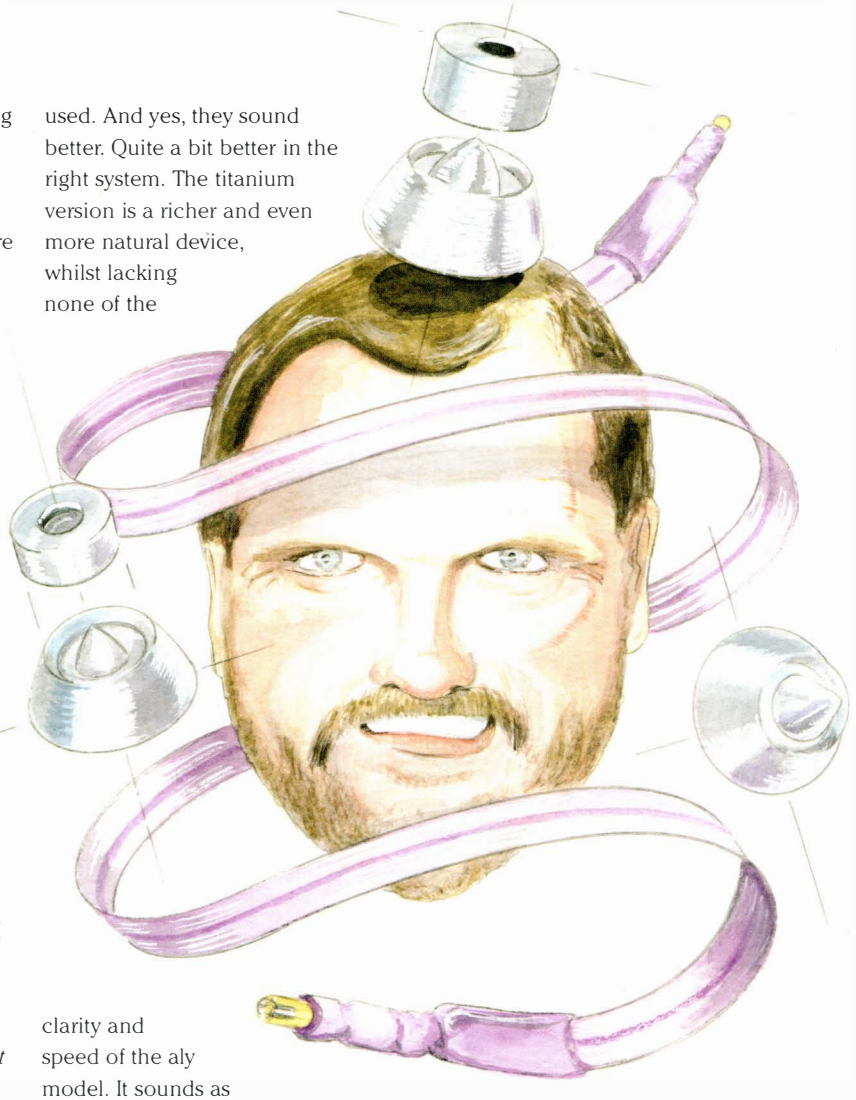
By now you've probably gathered that I wouldn't have troubled with such a tedious description unless the Pulsar Points were a little out of the ordinary. Extraordinary is nearer the mark. They clearly out-perform anything in my extensive (you'd better believe it!) collection of platforms, blobs, spikes and cones of every conceivable metal and composite construction, including some seriously expensive exotica and lumps of carbon fibre. Take three and place them under an amplifier (some CD players take offence, so start where the results are predictable), and the improvement is difficult to credit. Instruments become far more focussed, with a corresponding increase in clarity. But it's not just a 'visual' effect, related to imagery and placement. Notes themselves become clearer, and it's far easier to understand what is being played, in terms of both the tune and the instruments. How so? Look at the second diagram again and consider the effect of reducing the levels of interference by spurious energy. The Pulsar Points do exactly that, and do it so effectively that there is a huge reduction in the blurring and muddle polluting the music.

Translate that to what you hear, and suddenly both the notes that a musician plays and the way he plays them are much more apparent. It's easier to understand what this person is trying to tell you, whether they are a guitarist or a singer. Add the increase in leading edge definition to the equation and two more things become apparent. The start time of each note is much more precise, which does wonders for the rhythmic integrity of the music, and their energy is more concentrated, which improves dynamic range. Time and again, listeners thought the system was louder with the Pulsar Points in place. What they were actually hearing was something a lot closer to the natural vibrance and energy of live music.

With Pulsar Points under everything including the speakers, the system offered more information, and organised it better. The music really bounced along, the harmonic signature of individual instruments adding to its presence and purpose. Which makes these feet a must try tweak for anyone. At $50 for a set of four they are not the cheapest supports around but they bury the similarly priced alternatives, and better the performance of basic air suspension systems too. In fact, I'm so impressed that I was worried this review might appear intemperate, so I obtained additional samples for other reviewers. You'll find their comments below, but bear in mind that I tried these isolation feet in a host of systems before committing my thoughts to paper. And in not one of those systems did the Pulsar Points fail to deliver a worthwhile benefit. In fact, they bowled over even the most sceptical listeners, and I strongly recommend you experiment for yourself.

Post script for those who really have got too much money, and need to spend it!

Wouldn't it be great if I could leave it there, but unfortunately, along with the aluminium Pulsar Points, I received a single set of titanium ones, identical in every respect apart from the metal used. And yes, they sound better. Quite a bit better in the right system. The titanium version is a richer and even more natural device, whilst lacking none of the clarity and speed of the aly model. It sounds as though it has pushed the information floor even lower, allowing not just more harmonic information through, but a more sophisticated grasp of rhythm and the timing (or placing) of notes as well. The musical results are even more expressive and involving than with the aluminium feet, with vocal subtleties a real revelation.



The problem with titanium is the price. It might not be rare (most of Western Australia and a large lump of Russia are made out of it), but it's an absolute pig to machine. It used to be widely employed in the aerospace industry, where the military had the money to pay for it, but the declining arms race has left the specialist machine shops hunting for new markets. They've already hit cycling, and on this showing, hi-fi could be next.

How expensive is expensive? Try $300 a set of four on for size. And then consider that a CNC machine can turn out an aluminium base unit in about 40 seconds, whereas the titanium equivalent takes 23 minutes (and a lot more cutter heads!). Are they worth it? Yes, in the right system they'll pay their way, but that system is already going to be both expensive and well balanced. You can hear the difference with Rotel separates, you just won't want the bill.

Michell Turntable Upgrades

The Gyrodec

by Dave Davies

I use a standard GyroDec which was upgraded early last year with the Orbe platter and suspension. This proved to be both worthwhile and highly cost effective improving all aspects of performance to a significant degree. I was convinced that short of making the leap to a full Orbe system, this was the final upgrade I'd need. How wrong I was !

When Michell introduced the new 'boxless'version of the Gyrodec, they took the opportunity to apply its stand alone motor to the standard Gyro, thus making the whole range, from Spider to Orbe, a single upgrade path. The new motor assembly and suspension posts (described in detail in DA's piece) are available as upgrades to existing Gyro's, but whilst the posts are a straight exchange, the motor requires a hole being cut in your baseplate. Needless to say my deck was stripped and the necessary parts rushed to Michell post-haste.

The existing motor was removed, serviced and mounted in a sturdy free-standing aluminium base, and the base board routed out to allow the motor to sit free of (through) the base, and in it's original position. This new housing uses a mini XLR connector, which has to be fitted to your power supply. The new spring mountings were fitted and with the usual Michell thoroughness, the base unit thoroughly cleaned up and polished to bring it up to near-new condition. I actually hand carried my base board and power supply to Borehamwood, but sending it direct, or via your dealer will be fine, as long as you pack it carefully.

Arriving home, re-assembly of the deck was simplicity itself (especially as I got the editor to do it for me), and it was up and running in a matter of minutes. The new spring asemblies really are much easier to use, especially the previously fiddly back post.

I guess I expected an improvement, clearly a free standing motor would mean a system free of motor borne vibration, and this would at least mean increased low-level detail, but was I surprised ! Not only was there significantly more detail, but bass definition, presence and staging had also substantially improved. Dynamic range and focus were also way better. It was like a clogging hazy blanket had been lifted from the music, making it crisper, clearer and much more alive. In fact, all the benefits that the Orbe used to offer over the Gyro. How close the Gyro (with the Orbe platter) gets to a current Orbe, I don't know, but given the new interchangability of parts, it's going to be easy for you to experiment. This is one of the biggest single improvements I've ever made to a turntable (and you don't want to know how many decks, arms and cartridges I've owned). Given the modest cost involved, every Gyro owner should invest immediatly. In short, John Michell has done it again. Highly recommended !

Michell Orbe

by Dave Ayers

As you can see elsewhere in this issue, Michell Engineering have been unusually busy of late, providing us with new Spider versions of the Gyrodeck and the Orbe. Intending to make the new products easier to set up, Michell have changed the design of the posts that support the suspension springs. Having done this they discovered that (surprise, surprise) the new posts also alter (and improve) the sound of the deck, and so have made them available as an upgrade for existing Orbes. Having owned an Orbe since they first appeared, I was very interested to see how the new posts would affect the sound, and if it would indeed be an improvement.

The original posts were made from a single piece of steel, threaded top and bottom. The bottom thread screwed into the Perspex sub-base of the Orbe, and top thread supported a knurled nut around which sat the Deflex spring supporting collar. Adjustment of height was performed by holding the spring still and twisting the knurled nut, centreing involved the reverse, holding the nut still whilst twisting the springs. This could be a bit awkward for those with chubby fingers, although I never found it a problem. The new supports are a two piece arrangement, with a thinner pole which threads into the base, and a metal outer sleeve with a knurled top to which the Deflex supporting collar is directly attached. A ball bearing separates the two like a miniature inverted platter bearing and a layer of

grease holds everything firm. Adjustment is performed almost the same way as before, change height by holding the spring and twisting the knurled top of the sleeve and centre the suspension by twisting the spring, only with the new arrangement you allow the sleeve to turn with the spring.

Fitting the new posts to the turntable was a doddle, and also gave us the opportunity to check the tightness of the main bearing mount in the subchassis. I'm glad to say this was OK, as otherwise the pre-change listening session would have been invalidated. The next job was to adjust the height and bounce of the subchassis. This seemingly simple job turned out to be deceptive. Making the adjustments was much easier than before, and a good bounce was soon achieved, but within an hour the bounce had drifted off completely. This happened several times during the evening, and proved to be extremely frustrating. It would appear that the grease between the two parts of the posts is sufficiently viscous to allow the spring to be held slightly twisted, this tension causes a turning moment which is evened out over a period of time by the sleeve settling into a new position. If you go ahead with this change, be prepared to adjust the centreing over a period of several hours. The good news is, once you have achieved the correct positioning, it does not drift off again. I understand that DD suffered no such problems with his Gyro, so you may be lucky.

At last our esteemed editor and I had the opportunity to listen to the differences, and there were quite a few. Before I continue I should point out that my system has a very substantial bass end; years of working with live bands having given me expectations of serious solidity from a drum kit. On first listening, the sound had opened out quite considerably, but seemed to be missing the real bass foundation than I am used to. As we played more tracks and discussed this result so the sound changed, with each track gaining in solidity, the whole process taking about half an hour. It seems that the new suspension needs time to bed in, most probably due to a combination of the metal sleeve revolving slightly as the tension in the spring relaxes and residual grease under the ball bearing being displaced.

Having discovered this phenomenon, we started our listening session again. Surprisingly the track that most demonstrated the differences between the two suspensions was Evil Woman by Black Sabbath from the Castle 160gm reissue of their first album. In essence a very simple track, it lives or dies on the timing of the bass line and the clarity and attack of the rhythm guitar. With the old suspension, the bass was thicker and slower whilst the guitar which is heavily panned right was much more laid-back, yet fuzzier. The sense of interplay and the tension between the two was much greater with the new suspension. Comfortable from Peter Hammill was next: this track contains a good mixture of acoustic and electric instruments, and some very clear percussion. Once again the sound was more open, the percussion positively sparkling out of the mix. Hammill's singing was also delivered with greater expression, freed as it was from a small degree of chestiness that had been previously present.

Saint Seans' *Jonathon Creek* (sorry *Danse Macabre*) from the album *Witches Brew* was next up. Once again the same trends could be heard, the double basses benefiting from the improved clarity in the bass, whilst the solo violin sounded clearer with more attack and less distortion. The recorded acoustic was much clearer (as were the underground trains), and there was a greater sense of front to back separation to the orchestra.

So what we have here is a simple and inexpensive upgrade for current Orbe owners. Already an outstanding performer in its price bracket, this change nudges it a little bit nearer to audio nirvana. As for me I won't be going back to the old suspension posts, and I can't say fairer than that.

TECHNICAL SPECIFICATIONS

Prices: Gyro or Orbe Suspension Posts - £39 for a set of three.
(Michell call them Spring Adjustment Pillars)

Motor modification to existing Gyrodec - £155
(Motor serviced and built into new housing, Base board drilled and polished, connector changed on power supply)

Manufacturer:
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Herts
WD6 4SE

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Audio Counsel Music Works Mains Leads

Shockingly good leads for Naim amps.

by Jason Hector

When buying or upgrading a hi-fi system, we all tend to set a budget and then distribute it amongst the boxes we're looking at. These are the expensive bits, they contain all of that technology and engineering and so they get all of the attention. Now, most serious hi-fi enthusiasts will allocate a bit of cash for interconnect cables between the boxes. Very few people will, at this point, place serious cash into tables and the like. But, unfortunately, domestic hi-fi does not exist in a perfect environmental vacuum. The sounds you hear are influenced by myriad interactions, the most obvious of which is between the speakers and the room, and the least appreciated, but in many ways most fundamental, is between the system and its mains electricity supply.

Like it or not, what we actually listen to is what comes out of those wall sockets. The hi-fi might process it in a similar way to a chef "processing" food, but electricity is the raw material, and like food, the quality of the ingredients counts! Hang on a minute, isn't the mains just electricity, unchanging, you know 230 V AC, 50 Hz? Well no it isn't. The simplest variation is in the size. The 230 V varies depending on the amount of electricity being used, and hence on the time of day. The other problem is corruption of that 50Hz waveform by other equipment on those mains wires; fridges, computers, anything that switches will affect the supply, and hence the sounds you hear, and any radio frequency (RF) noise will upset delicate electronics.

Once these problems have been acknowledged, the most common response is to run the hi-fi system from a separate mains spur. This keeps the system isolated from the more obvious evils and is definitely worthwhile, usually reaping musical rewards out of all proportion to the cost. Typically you will find greater consistency, transparency and dynamic range, which all adds up to more music more of the time.

But how do you get your "improved" electricity from the socket to the hi-fi? There are numerous audio mains leads on the market, many of them claiming to be miracle workers, and the one thing most of them have in common is expense. I use a Naim based system, and Naim have long recognized the influence that mains leads can have on the audio performance of their electronics. They supply good quality leads with the equipment, using quality plugs and cable. At shows and their factory, they have long used a special star-earthed distribution block named the Hydra. Indeed, so integral are the supplied mains leads that all attempts I had heard failed to improve on them. All of this changed with my recent introduction to music works leads, a set of mains cables designed specifically to improve on the standard Naim items. Who would dare desecrate these hallowed IEC sockets? Well strangely enough it was a Naim dealer. A well respected Naim dealer in fact, the Audio Counsel in Cheadle. An old fashioned dealership are the Audio Counsel. Old fashioned in ▶

that they only stock equipment that they like the sound of, and they care about the standard of sound quality achieved in their demonstration rooms. In the pursuit of improvements, they found that with careful arrangement of the mains leads, they could dramatically improve the sound of their demonstration systems. Encouraged by this discovery they set about exploring and improving the method of getting electricity to the equipment.

The early work mainly consisted of rearrangements of the leads, and it was found that the best sound was achieved when the system was all plugged into a star-earthed distribution block, rather than individual sockets. Results did however vary with a number of other factors, not least the wall sockets themselves. This led, after much trial and error, to the set of specialist leads and blocks now available, a set which will reproduce the observed improvements on virtually all Naim systems, virtually all of the time. But you need to exercise a little care, and a willingness to experiment is helpful.

I first encountered the leads when Phil (my Naim dealer) started to wax lyrical on their benefits. Now Phil has been in the business too long to get excited over nothing so I was intrigued but more than a little skeptical. The very first demonstration had me interested. With a CDX/XPS, NAC82, NAP180 system feeding a pair of Shahinian Arcs using a full Audio Counsel system of distribution block and two mains cables we tried simply plugging it into different outlets on the same spur. What a difference distance makes. With the system plugged into a socket adjacent to the equipment the system sounded really rather good. Now this was a system I know well and comparisons proved that things were improved over the standard leads. So far so good, but the improvements were hardly earth shattering. But stretch the mains leads out into a single long line, and plug the block into the most remote socket you can reach, and things really start to change. For the better. The sound was suddenly alive. And this was not a subtle difference. My appetite whetted, and with Phil serving a customer, I played around a little. Not understanding the dynamics of the leads at this point, I added a Hicap to the system but plugged it willy-nilly into a spare wall socket. The result was disappointing, indeed, something felt sat on. Replacing the Hicap's mains lead with one from the Audio Counsel, and plugging this into the distribution block, made all the difference. The sound was lifted to new heights. The hallmark Naim pace and timing was there but the increase in energy was palpable a performance now unfolded before me, the Hicap suddenly seemed a cheap upgrade, Phil? He just smiled knowingly. Well that was it, I had to get some home with me and try them in a domestic setting.

Larry at the Audio Counsel sent me some leads (Phil having sold out!), and gave me some much appreciated advice, and I set to work. Trying to be methodical, and at the same time following the advice I was given, the first thing I did was to replace my standard distribution block with the Audio Counsel one, plugged into a socket as great a distance from the equipment as possible. Experimentation subsequently proved this to be the best sounding. I then methodically replaced the standard leads, starting with the Armageddon turntable power supply, then the Hicap on the Prefix, the one for the 102, and through to the 250. Throughout this process the system was feeding my Shahinian Arcs or (just for fun) a pair of Mk1 Linn Kans.

In each case the change to an Audio Counsel product improved the musical presentation of the system in a consistent way, but not in the same way as upgrading for example, a Naim pre-amplifier. The leads address a different set of parameters. What my listening revealed is that the largest improvements are in the dynamic range, the detail extracted, the tonal qualities of voices and instruments, and the air and space in which the performers do their thing. Not just spatially but musically as well. Whilst the individual musicians now gelled into a more cohesive band, each had a discrete position within the sound. Each time I added an Audio Counsel lead it sounded like another layer of grunge had been stripped away. It is frequently said that Naim systems can't image. When the Audio Counsel mains leads are present they can. And then some. I was captivated. And all this occurred without the loss of any of the Naim hallmarks. They were enhanced as well! The timing was great, and that I had struggled to come to grips with suddenly made a lot more sense. My system, always good for a boogie, had me jiving around for hours. Great fun!

As you can see, I was mightily impressed with the Audio Counsel's Music Works range of leads. But the really good news is the price, just £65 for a 4 way distribution block and £35 for an IEC lead. Tailored for Naim equipment they will probably work with other makes. However they do require patience and the services of a good dealer to give the best possible results. But with an increasing number of dealers stocking the leads, this shouldn't be too much of a problem. If you have a Naim system try a set as soon as possible. If you have other kit, try to get a home demonstration, because for the money, they are the biggest upgrade I have ever made.

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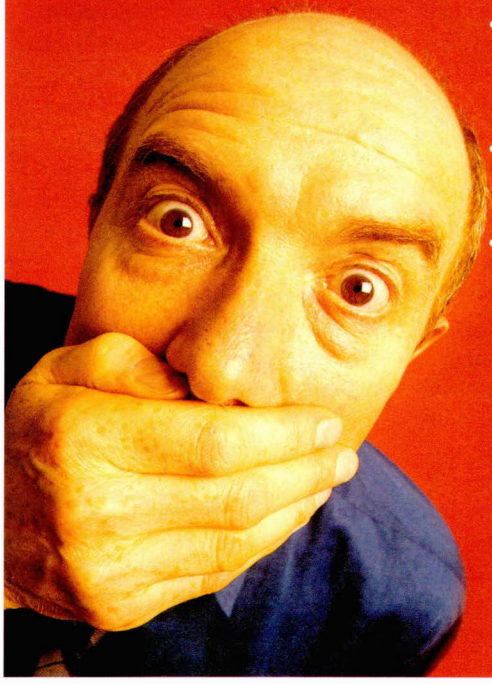

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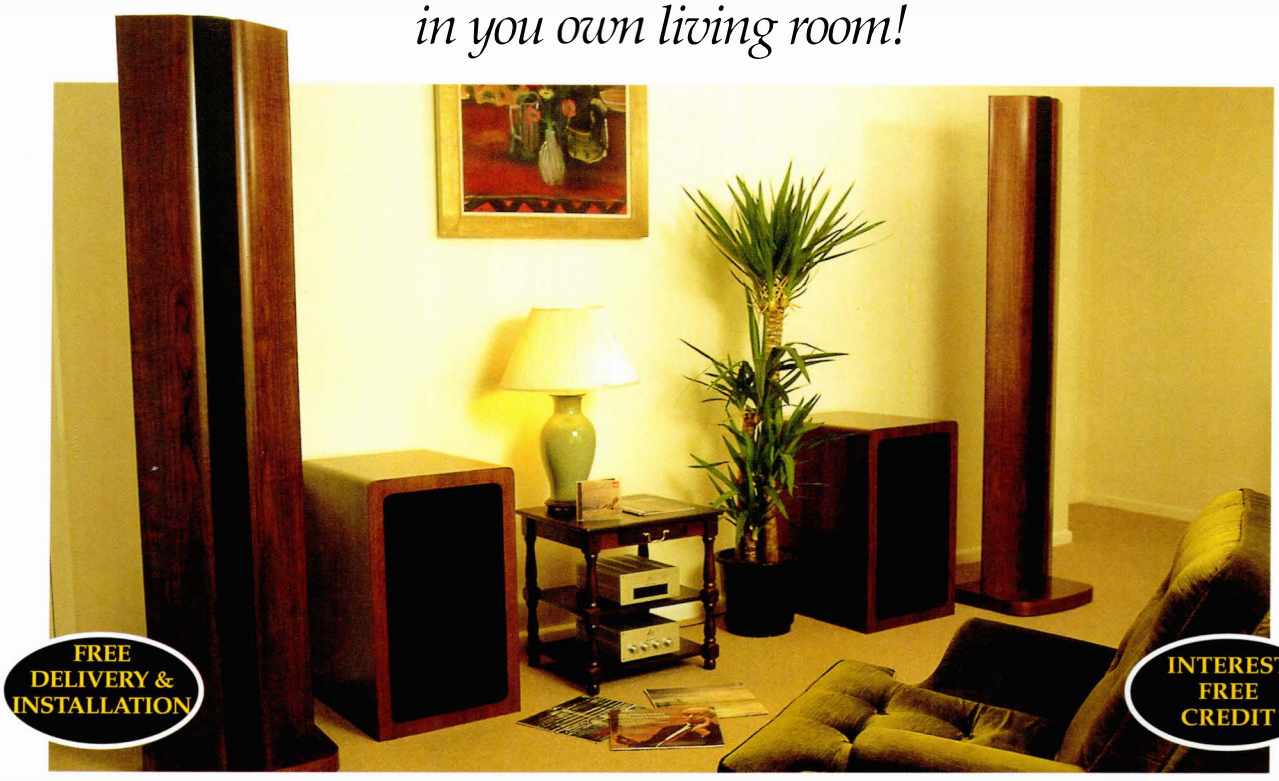

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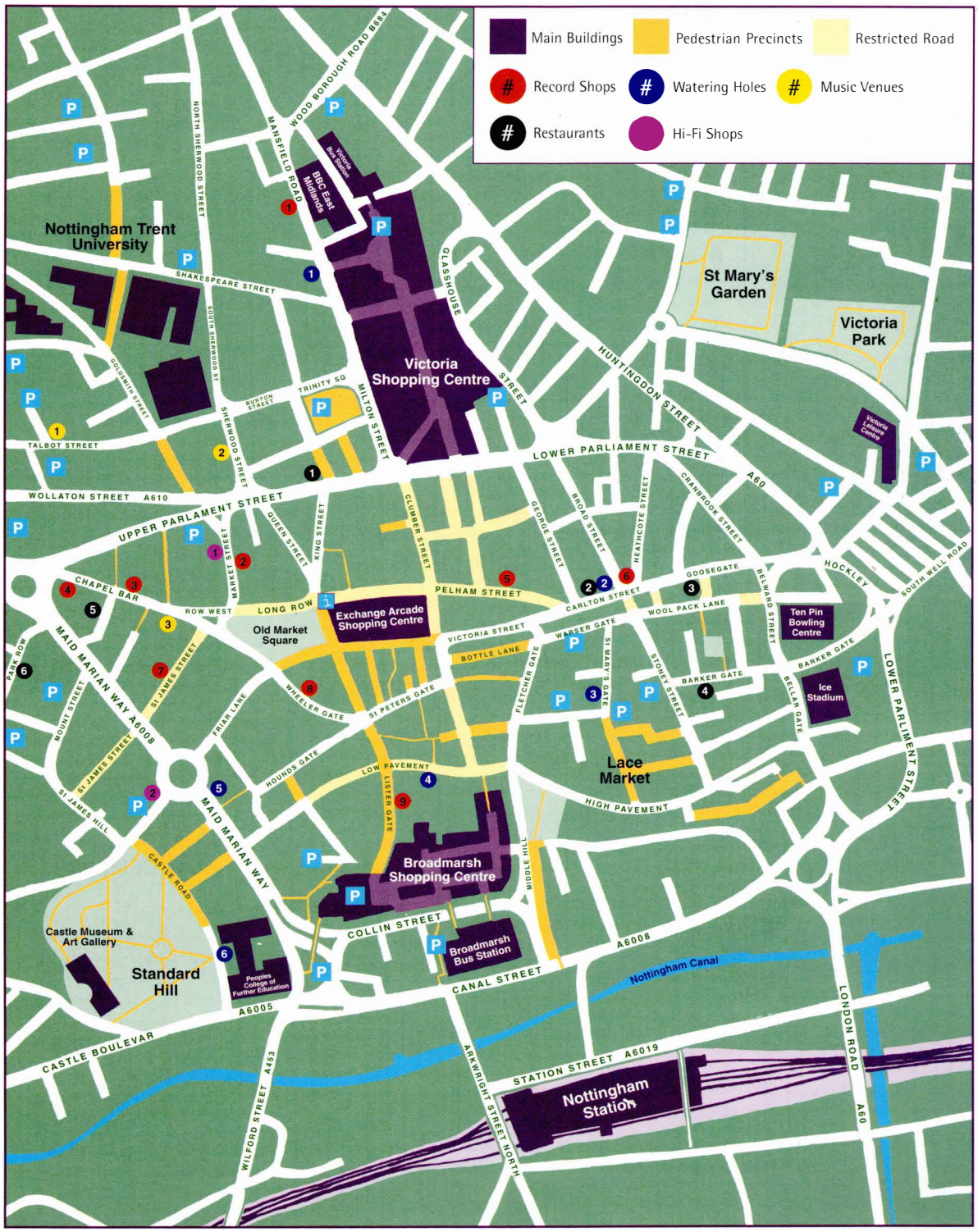
City Guide – Nottingham



City Guide - Nottingham

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Various

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3 THE BELL INN
Angel Row,
Tel. 947 5241
Jazz Nights

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Indian

GINZA TEPPAN YAKI
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Tel. 969 1660
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5 SALUTATION INN
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Tel. 958 9432

6 YE OLDE TRIP TO JERUSALEM
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3 KEANS HEAD
46 St Mary's Gate,
Tel. 941 9634

2 BROWNS BAR
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French

2 SONNYS
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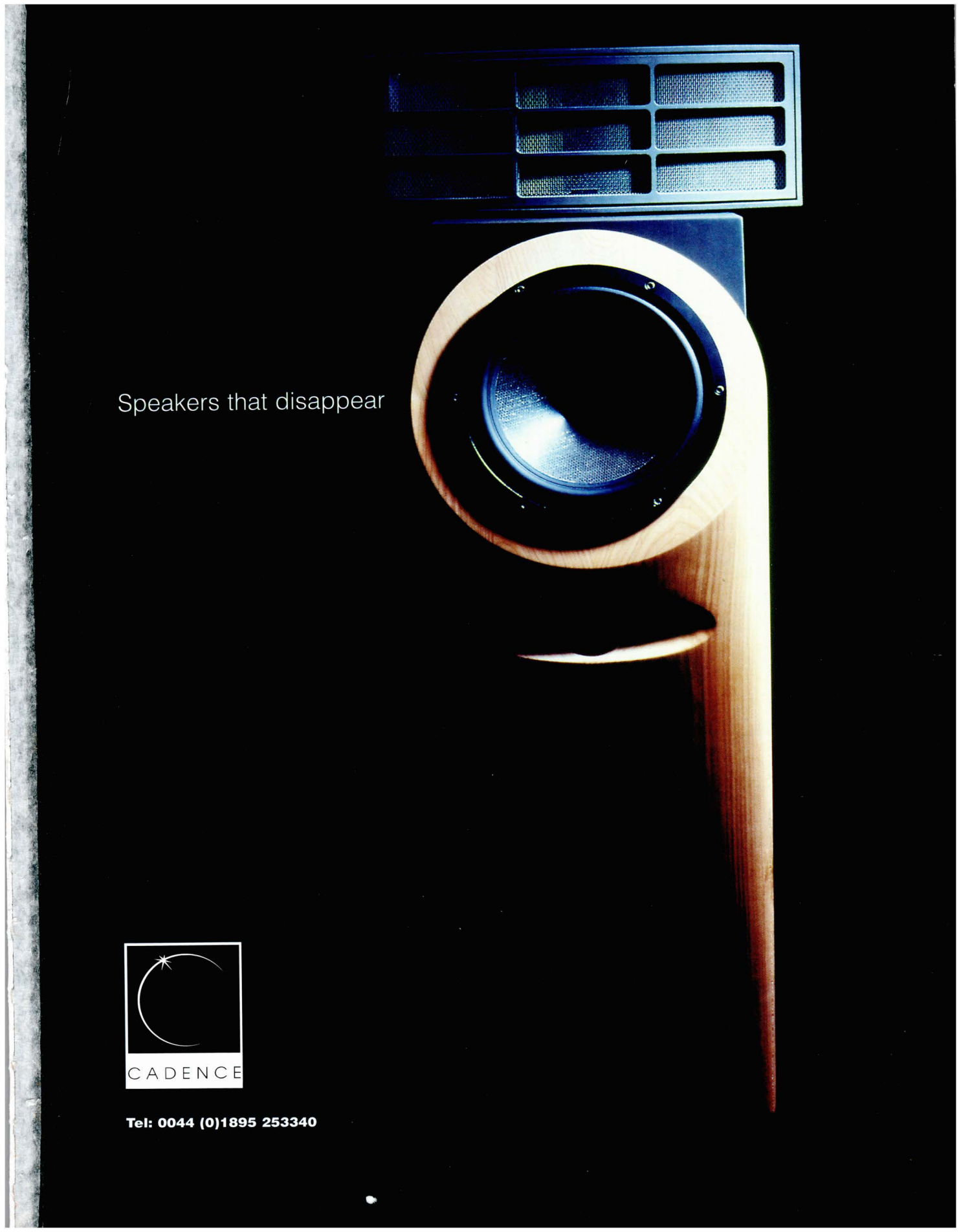
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