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## Power Trip...

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Thorens, Bryston and Karen

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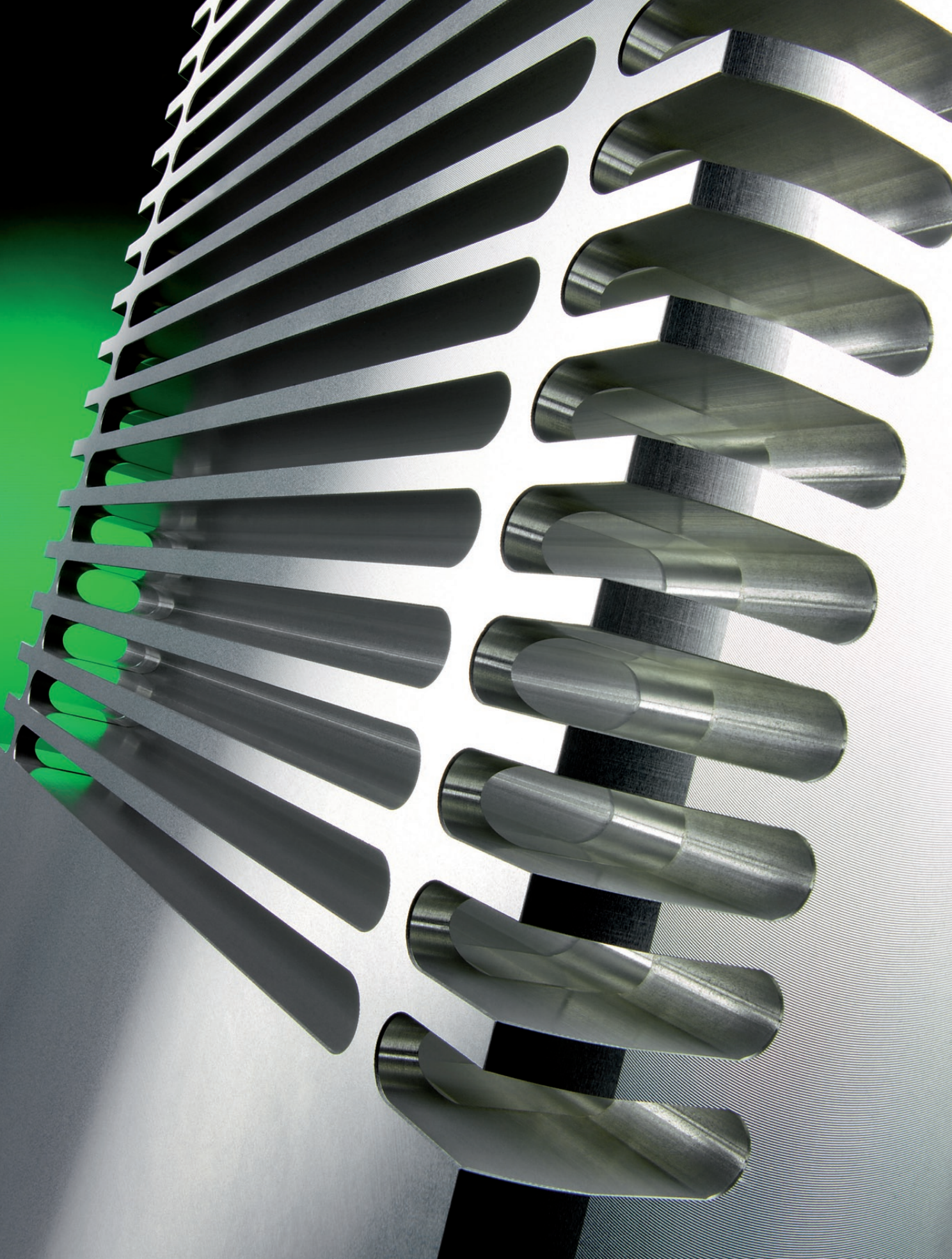
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# Power Trip...

## The evolution of the high-powered amplifier

by Roy Gregory and Chris Binns

There came a point in the short and recent history of high-end audio, when the unfeasibly powerful solid-state mono-bloc became the absolute apogee of audiophile aspiration. Why these hulking, physically difficult and imposing brutes – as opposed to something more obvious (like a large loudspeaker) or exquisite (like a hand-built cartridge)? It's easy to speculate about the vicarious reinforcement of the fragile male ego and the corruptive attraction of absolute power, but I suspect that the truth is more prosaic. Even the largest mono-blocs are relatively unobtrusive and easy to accommodate.

Factor in a fashion for ever smaller speakers with increasingly improbable aspirations as regards bandwidth and a general acceptance of impossibly low impedance loads and it's not hard to see why a monster solid-state amp (or two) would have an attraction: "All that sound... out of those little speakers? Wow!" Of course, the reaction fails to incorporate the pair of huge amps lurking discretely out of sight, each a three-man lift – but hey, impressive is as impressive does...

But fashion is by nature a transitory beast and the SET backlash was only just around the corner. Still, the high-powered solid-state amp retained its devotees if not its primacy of place in the spotlight. But with alternative approaches came a greater understanding of the qualitative cost of all that power (the financial burdens were already indelibly etched on the

psyche of a generation). Listeners started to appreciate the problems that come with simply trying to deliver such huge potential and the price they exact in terms of speed and musical agility, subtlety, finesse and tonal range. Increasingly, the circuitry required to keep all that power in line became the deciding factor in its delivery,



superceding the demands of the signal, robbing the experience of emotion and intimacy.

But there's no denying the universal nature of solid-state amplification, its load tolerance and efficiency. As the incumbent champions of the technology succumbed to the distractions of a variety of domestic upheavals or a simple lack of inspiration so the once dominant marques of Krell, Mark Levinson and Rowland fell from their once lofty prominence to be challenged by a new generation of designers with leaner, hungrier ways of doing the same job, or new ideas all together. While the likes of Spectral and MBL (the latter driven by the specific demands

of their loudspeakers) have simply carried on regardless, their higher profile contemporaries have rather fallen from grace, suddenly finding themselves embroiled in (and in danger of losing) an unseemly brawl for market prominence. Well, here are the "barbarian hordes", rewriting the rules and parameters of high-powered amplification – and generally making it rather more affordable along the way. Hardly upstarts, there arguments are more persuasive than the establishment might have you believe.

### The Ayre MXR mono-blocs

As a company and a product line, Ayre Acoustics represent the archetypal example of this new wave; and nothing more so than the MXR mono-bloc power amplifier. Long respected for the excellence of their more affordable electronics and disc players, Ayre's original statement designs have been unfairly and unwisely overlooked – as we discovered when the K-1xe pre-amp turned up alongside the MXR monos. Rather blocky in appearance and with an undeniably clunky volume control, this fully discrete, fully differential design totally rearranged our perceptions of what was possible at its \$6K price-point, easily matching the likes of the LS26 and including an excellent phono-stage into the bargain. And that from a ten year old design...

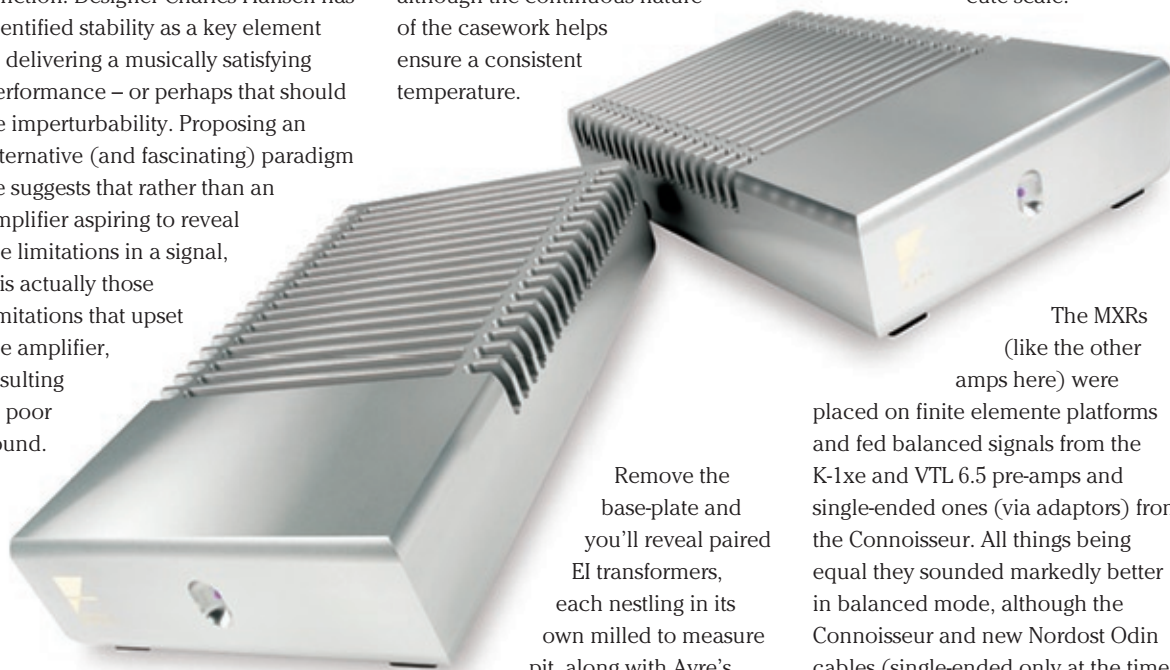
All of which makes Ayre's latest assault on the high-end an even more enticing prospect. The MXR mono- ►

► blocs are nothing if not distinctive. Each compact, shallow case is hewn from a single billet of aluminium, yet its discrete dimensions will deliver a full 300 Watts into eight Ohms and 600 into four. Nor is that casework mere extravagance designed to justify a high-zoot price-tag. The MXRs weigh in at \$5500 each, an astonishingly affordable ask for the performance on offer while, as with all the best designs, form definitely follows function. Designer Charles Hansen has identified stability as a key element in delivering a musically satisfying performance – or perhaps that should be imperturbability. Proposing an alternative (and fascinating) paradigm he suggests that rather than an amplifier aspiring to reveal the limitations in a signal, it is actually those limitations that upset the amplifier, resulting in poor sound.

Render the amp impervious and poor recordings will be far more rewarding. It's a proposal I'll return to in a future discussion with the man himself, but if the results of its implementation here are anything to go by it's worthy of serious consideration. To this end the MXR pays considerable attention to both the electrical and thermal stability of its fully differential circuit, as well as its mechanical integrity. Ayre have coined the term Equilock to describe newly developed circuitry designed to effectively fix the operating voltages within the input transistors. Meanwhile, a new generation of output devices that incorporate their own thermal

sensing has enabled far more precise control of the output stage. Key circuit boards are selected not just for their low-loss electrical properties but for their mechanical rigidity too, helping to eliminate spurious mechanical vibration within the circuit and creating a single physical entity that can be effectively grounded. Even the heat-sinks are positioned and braced for minimum mechanical signature rather than thermal efficiency, although the continuous nature of the casework helps ensure a consistent temperature.

press it to pass from standby to operate (blue – while other colours indicate low voltage, blown rail fuses, over heating etc.) These amps need to run and delivered notably better results when left in operate mode, taking a full 36 hours to really hit their stride. The cases also run warm enough to take the chill off a spring room – and attracted admiring comments from everyone who saw them. They may not be big but they score big on the cute scale.



The MXRs (like the other amps here) were

placed on finite element platforms and fed balanced signals from the K-1xe and VTL 6.5 pre-amps and single-ended ones (via adaptors) from the Connoisseur. All things being equal they sounded markedly better in balanced mode, although the Connoisseur and new Nordost Odin cables (single-ended only at the time of the listening) had enough of an edge over the K-1/balanced Valhalla set up to make it the preferred combination. The effectiveness of Symposium Rollerblock couplers beneath the amps also spoke volumes for their mechanical integrity, underlining the completeness of their conception. Speakers varied between the new Eben C1, the Marten Coltrane Supremes and, for the comparative sessions the easy to handle and full-range demands of the standard Coltrane.

Remove the base-plate and you'll reveal paired EI transformers, each nestling in its own milled to measure pit, along with Ayre's signature fully differential, feedback free, discrete circuitry, as beautifully executed on the inside as the casework is on the outside. Internal wiring is carefully routed through individual, carved channels and even hardened hi-fi cynics went all soft and gooey when shown the cellular beauty inside of the Ayres.

The MXRs are minimalism personified, offering a 13 Amp IEC mains connection, an XLR input and a Cardas twin speaker terminal, which will accept spades or 4mm plugs. There are also two AyreLink sockets for integration with a full Ayre system or pre-amp. The recessed LED on the front-panel glows green on switch on;

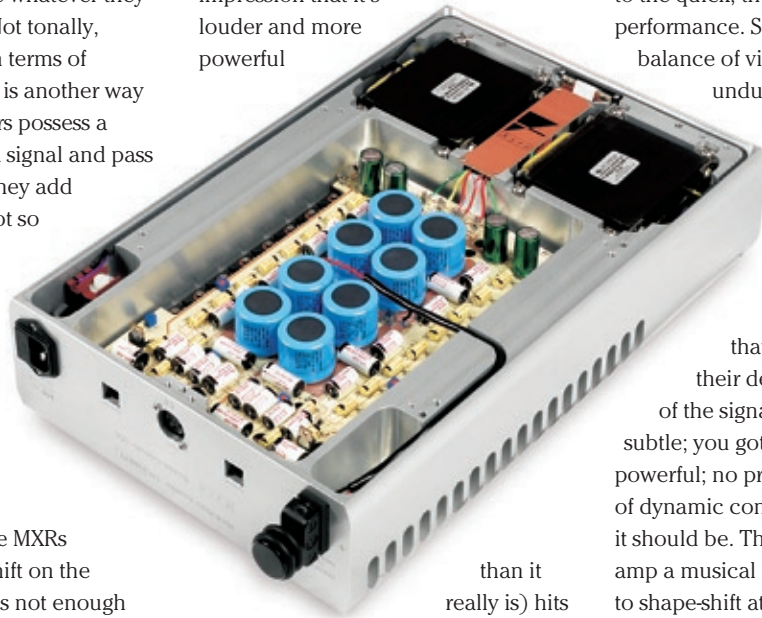
It's a shame that Roland have already used (sullied?) the Coherence moniker, because it could have been coined for these amps. They are almost valve-like in their continuity ►

▶ and sense of flow, the smoothness of their dynamic transitions – the very things that make valve amps so musically appealing, but wed here to the traditional solid-state virtues of transparency, load-tolerance, power and bandwidth. But the Ayres take those virtues a stage further. Put the MXRs in your system and they'll make any other amp I've tried sound disjointed and uneven. Musically, they'll make whatever they replace sound tilted. Not tonally, you understand, but in terms of understanding. Which is another way of saying that amplifiers possess a viewpoint. They take a signal and pass it on, but in so doing they add their own subtle (or not so subtle) push in some particular direction, their own specific spin on the musical event. In so doing they influence the way in which we understand and react to what we hear.

But, listening to the MXRs requires a paradigm shift on the part of the reviewer. It's not enough to simply seek that thumbprint, that character overlaid on the signal. "What do the Ayres sound like?" came the question. The answer, "Whatever they're connected to." It's not that they're sonically invisible, just that they manage to take the signal and pass it on without seemingly imposing on its sense in any way. Run a direct comparison with the other amps here and you can clearly hear what the MXRs can and (more obviously) cannot do. They can't for instance, float the stunningly defined acoustic space presented by the Karans, or decode and separate the denser bass textures on the Johanos/Dallas *Symphonic Dances* the same way the Brystons do. Nor do they have the bottomless pit of sheer energy that underpins the performance potential of the real

powerhouses here. That feeling that no matter what you do with the volume control the Amps will just keep coming. No, the MXRs' capabilities lie in quite a different direction.

Play a modern, compressed, rock recording on the Ayre amps and you'll find it surprisingly, astonishingly satisfying. All that presence and substance (which is after all the point of all that compression, to give the impression that it's louder and more powerful



than it really is) hits you right in the chest – with purpose. High-resolution sound? No. High-fidelity? Yeah, right! But highly satisfying? Definitely. Or to put it another way – musically, it works. In fact, it works so well that it speaks volumes about this amplifier's time and phase coherence. No matter how muddy or dense the signal things still happen exactly when and where they should, making them make a lot more sense. Piled chords and power guitar become exactly that – carefully piled rather than thrown together higgledy-piggledy. Which translates directly into that feeling of power and musical satisfaction.

Now, switch to Janis Ian and 'At Seventeen' and you'll hear a track that's all about the delicacy and subtlety of its phrasing, each expressive twist or turn

underpinned by a percussion or guitar accent, the haunting brass chorus that adds that plaintive air. This is musical intimacy and emotional directness at its most powerful. And if you want sheer, unbridled power, those *Symphonic Dances* have a muscular substance and drive that simply propels you into the performance.

All of which is another way of saying that these amps cut straight to the quick, the very nature of the performance. Such is their overall balance of virtues, the lack of any undue emphasis on their part, that the musical message emerges unimpeded and intact. There's a seamless continuity, an overarching holistic quality to their sound that manages to match their delivery to the demands

of the signal. Small, delicate, subtle; you got it. Big, brooding, powerful; no problem. Dramatic, full of dynamic contrast; emphatic, just as it should be. That's what makes this amp a musical chameleon, the ability to shape-shift at will. You think its big and it surprises you with its delicacy. You want more power – and there it is. It's stable without ever holding too tight, it's quick and dramatic without ever being obvious. So, when I say it matches its delivery to the demands of the signal, what I'm really saying is that it's the signal that defines the terms of reproduction: Which means that in turn, the amps give you as much as the signal is capable of, rather than taking the signal and constantly comparing it to what they're capable of. That might seem like a subtle distinction but when it comes to musical enjoyment the effect is smack you in the face obvious. There's never any question as to whether this disc is good enough to grace your system: there's precious little sense of the system at all. Instead, the musical message becomes the ▶

▶ dominant influence, demanding your attention and dismissing such trivialities. As authoritative as the amplifiers' grip on the speakers is, it's the signal that controls their intent.

Now, lest you think I'm getting carried away, one thing these amps aren't is perfect. Whether you like the costs involved (sonic and monetary) there is no substitute for four-figure power ratings and their absolute authority, the musical and acoustic foundation they deliver. The Ayres present a deep and tall but slightly narrow sound-stage, and one that favours the images peopling it at the expense of the overall acoustic space and the definition of its boundaries. Scale and perspective are both, however, excellent – lifelike and naturally convincing – especially with the Coltrane Supremes (although whether the active bass towers influence this is an interesting question). Nor does the MXR flatter to deceive. If there's hardness or glare on the disc, push the Ayre mono-blocs and you'll hear it in all its glory. Nor, despite the impressive presence and substance of their sound, do they add spurious weight or harmonic colour. Some might find them slightly washed out in tonal terms, although I wonder whether that's more a case of what you are used to – like sugar in tea. Their spectral balance is uncannily similar to the RADIA, the latter amp sounding a little more agile and open, but without the top-to-bottom integrity and physical presence of the Ayres, or their power delivery. Where the Hovland is marginal with the Coltranes, the MXRs never even break a sweat.

In many respects the Ayre monos establish a new benchmark for all round excellence. An amp like the Bryston delivers more power, and arguably more sheer grunt. The Thorens too has its own appeal. But in terms of complete musical capability, the ability to deliver a musical performance into your room, most rooms, with a variety

of partnering speakers, the MXRs know no peer at the price. They are also elegant, compact and manageable, bombproof, intelligent and fail-safe. Despite their inherent musical virtues, they'll still reward careful matching. Those who are troubled by their high frequency honesty and energy might want to try a more forgiving cable than the Nordost. I'd anticipate AudioQuest or Cardas delivering positive and possibly kinder results. But whatever the chosen ancillaries one of these amplifiers' greatest strengths is to bring the best out of partnering equipment just as surely as they do with the discs you play. No amplifier since the RADIA has spent as long undisturbed in my system. No amplifier this powerful and relatively affordable has proved anywhere near as musically satisfying. Such unquestioning acceptance is rare indeed – and all the more valuable for it. Unflappable and utterly unintrusive, for me, these amps rewrite the rulebook on power. You can do better – but you'd better be prepared to pay for the pleasure... ▶+