

## Avalon Isis Loudspeaker

*Reviewed by Roy Gregory in Issue 48*

Those wondering at the yawning chasm in price between Avalon's Eidolon Diamond and the flagship, four-box Sentinel need wonder no more. The Isis not only fills the gap, it also provides a more practical range-topper for smaller European rooms. Although there's seemingly little new to differentiate the Isis from its more affordable siblings, at least as far as styling and driver complement goes, the new speaker extends the Eidolon's performance envelope not just in those areas where Avalon



have always excelled, but into the new realms of dynamic range and impact. Here we have a speaker with the seamless integration, dynamic discrimination, transparency and staging for which the company is justifiably renowned, but combined with a sense of power, scale and sheer presence that has so often been the preserve of more obvious sounding alternatives. It's a little like discovering that the well-spoken young man being bullied by the scruffs is actually the Eton boxing champ. These speakers are well capable of administering a sound drubbing

without getting so much as a hair out of place: Impeccably mannered, supremely organised but brutal if necessary, it's a combination that's very, very special indeed. ➤+



**Price: £58000**

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# The Avalon Isis Loudspeaker

by Roy Gregory

Expectation is a funny thing – and it can also be quite disconcerting when it's wide of the mark. After all, I thought I had a pretty good idea of what Avalon speakers were about, when along came the Isis. Not only was it larger than any Avalon I've spent time with, it was clearly, obviously and comprehensively better than them too – and not just in a “more of the same” kind of way. Here was a speaker that delivered everything I've come to expect from an Avalon, but wed so holistically to a whole new capability that it rewrote the rulebook, not just for Avalons but for my understanding of how speakers work in general. Here is the product that has finally crystallized, for me, a whole host of thoughts and ideas about the way that hi-fi and loudspeakers communicate and handle information into a single moment of clarity. Suddenly, all those things that I knew were important – now I know why.

First impressions are important – but they can also be misleading. Walk into a room where there's a pair of Isis and the first thing that's going to go through your brain is the word, “BIG”: The second is probably “Avalon”. Yep, this is indeed a large speaker, which, with its multiple facets and angular grilles is very definitely an Avalon, but in both cases you'd only be part right. In reality, the Isis does a remarkable job of minimizing the visual impact of such a large box; it might look BIG, but it's actually BIGGER than that. Yet, despite its true dimensions it doesn't dominate my room in the same way that the MAXX2s did, or indeed the Nola Pegasus do.

More importantly, that lurking sense of familiarity goes beyond the basic styling cues; there's something of the company's massive Sentinel system here. Seldom seen and familiar in the photographic sense only, the huge (and hugely expensive) system is well named,

with its human dimensions, tapered shoulders and forward tilted head combining to give it a brooding (omni)presence. Look closer and you begin to realise that the Isis is both an outgrowth of its smaller siblings like the Eidolon and a downscaled version of the Sentinel – although it's also neither of these simple constructs. You might assume then, that it represents the next evolutionary stage in designer Neil Patel's thinking and development and here you'd be on safer ground; except that evolution is a gradual process whereas in developmental and performance terms “the great leap forward” represented by the Isis is actually a significant step-change, more revolutionary than evolutionary in nature.

Instead, let's just say that, despite appearances and the more obvious physical evidence to the contrary, this speaker is like no Avalon you'll have heard before. Let's start with form; the Isis might draw its overall aesthetic and humanoid dimensions from the Sentinel, but it is, technologically speaking, a much closer relative to the Eidolon Diamond. It's cabinet is constructed in familiar Avalon fashion, from massively thick slabs of laminated selected density fibre material (or MDF; just not the off-the-shelf variety) the sloping shapes helping to eliminate parallel surfaces and thus internal standing waves. In this instance, the baffles are over 115mm thick, which combined with a five-foot high frame, near 15” width and 17” depth (although it's actually greater

because of the slope) translate into a seriously massive body, helping to explain the 100kg weight for each cabinet. The carefully arranged facets are self-evident and help reduce diffraction effects from the front baffles, while the complex shapes that result ensure that the beautiful veneers are selected and superbly applied by hand. The thick, black base that visually couples the speaker to the floor also acts as a channel for the twin, downward

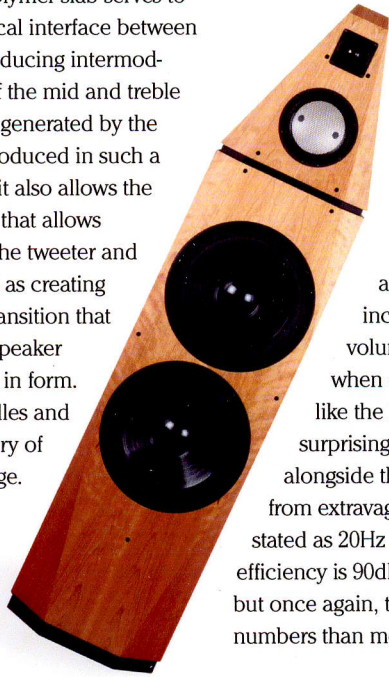
firing ports, allowing an easier egress towards the rear for their considerable output. Once inside the cabinet, if you could get there, you'd find the familiar multiple braces and the exhaustively selected crossover components that grace Avalon's other products.

So far so good and exactly what you'd expect – just larger, a difference whose importance (and challenges) it's easy to underestimate. Other changes are likewise, more important than they seem. The three viciously sharp cones supplied for each cabinet now thread on beautifully engineered studs, while large spanner flats make levelling the speakers an astonishingly accurate and simple (and vital!) process. The separate “head” is indeed physically isolated (although it's permanently fixed to the main cabinet) making this a four-box, stacked system, rather like the Pegasus in concept. The two cabinet elements are spaced by a slab of “carefully selected polymer material” (that's Corian to you and me) that mimics the U-shape and rear aperture of the speaker's base. ▶



► Squint through the gap and sure enough, buried in the recess is a small, downward firing reflex port that loads the mid-range driver. The polymer slab serves to damp the mechanical interface between the two cabinets, reducing intermodulation distortion of the mid and treble by spurious energy generated by the huge bass forces produced in such a speaker. Physically, it also allows the shift in baffle angle that allows corrected axes for the tweeter and mid driver – as well as creating that chest to face transition that helps to make the speaker seem oddly human in form.

Remove the grilles and once again it's a story of the familiar writ large. Avalon's own, in-house modified version of the 7" ceramic mid-range is flanked



by a diamond tweeter and a pair of Nomex-Kevlar coned bass units. But, when compared to the Eidolon Diamond, the 25mm high-frequency driver is some 25% larger, while the bass drivers are the bigger, 13" units employed in the Sentinel. Add all this lot together with the changes to the cabinet and you get a significant increase in both internal volume and swept area when compared to a system like the Eidolon. Somewhat surprisingly, the figures that go alongside these dimensions are far from extravagant. Bandwidth is stated as 20Hz to 45kHz  $\pm 3$ dB, while efficiency is 90dB with a 4 Ohm load, but once again, there's more to these numbers than meets the eye.

There are other, less obvious factors that contribute significantly to the speakers' performance. Avalon have developed proprietary, purpose designed motor assemblies employing Neodymium magnets for all the drivers. Likewise, all diaphragms are concave and are contained in vented enclosures. This consistency across the audio range, especially as regards the magnetic material, is a critical component in the speakers' seamless sense of integration. Once again, in the Isis Avalon have produced a speaker that doesn't wear its value on its sleeve. If you are shopping with your eyes then you'll need to look below the surface to discern their significant investment in materials and technology. But, shop with your ears, and the benefits will be immediately apparent. I hesitate to use the words "Avalon" and "obvious" in the same sentence, but as the opening preamble makes clear, there's something so ►

### Set up and ancillaries...

Any speaker system approaching the quality of the Isis will place demands on the driving electronics and source components. However, where in some cases their super-critical nature rips the partnering amps to pieces, ruthlessly exposing their musical weaknesses and reservoir capacitance with equal disdain, the Avalons do not fit that mould. Maybe it's a reflection on the generally optimistic claims made for the sensitivity of speakers, but their 90dB sensitivity seems pretty conservative, which combined with their flattish 4 Ohm load makes the manufacturer's lower power limit of 75 Watts unusually realistic. In this instance it's the quality and nature of the amps that matters, a very good thing given the difficulty of combining quality and serious quantity in a single chassis. So, whilst the mighty Karan KAM 1200s (2kW into the Avalons' 4 Ohm load!) delivered an undeniably majestic sense of scale and awesome dynamic potential, the agile and tactile 100 Watts delivered by the Hovland RADIA were also astonishingly effective. Oddly enough, the valve amplifiers I tried were less impressive: I'm not saying you won't get valves to work with the Isis, but I'd certainly approach the combination with care (and definitely different cables).

Pre-amplifiers employed were the Lyra Connoisseur 4-2L SE with the RADIA and the Tom Evans Vibe, with the latest (and dramatically superior) Pulse 2 power supply. Front-ends were the Kuzma Stabi XL/Airline and VPI TNT6/JMW 12.5 Signature turntables, with Koetsu Blue Onyx, Lyra Titan i, vdH Condor and Mysonic cartridges, all played through the Groove Plus phono-stage. Silver discs spun in the Wadia 861SE with racks and supports from finite element and Stillpoints, signal and power cabling from Nordost, the Valhalla speaker cables shot-gunned to the Avalons' single terminals.

One word of warning; although the Isis aren't unmanageable heavy, their shape certainly makes them awkward to handle, especially as you are advised against holding them by the top cabinet. A little thought devoted to their installation before they arrive will definitely pay dividends. Once in the listening room, basic positioning of the speakers was surprisingly straight-

forward. The very nature of their bass, naturally weighted, with excellent speed, air and a convincing harmonic complexity and texture, means that it's very obviously either right or wrong. With the speakers placed at the standard width in my room (a surprisingly constant factor) I simply moved them forward until the bass locked in; too far back and it was heavy and sluggish, too far forward and it lacked weight. In the absence of carpets I found that a little damping beneath the bass ports paid dividends. Having tried various serviettes I finally settled on thin cork mats, which removed the hint of chestiness from voices experienced with the fabric option, while still ameliorating the thinness and slight bass hump delivered au naturelle. That's the beauty of the Isis; at each and every stage of set up, they let you hear exactly what's going on, any deviation from "right" being perfectly apparent.

Thereafter, with tape providing reference axes, a significant period of subtle refinement, a square dance involving lateral or front to back shifts of a few mms at a time and even smaller adjustments to toe-in, realized incremental improvements until I suddenly hit the sweet spot and the soundstage and dynamics locked together. If that sounds weird, just believe me when I say that you'll know it when you hear it. Instead of music and images, the energy within the notes feels like it's coming from within the images – rather than from their general vicinity. It makes you realise how vague and insubstantial the soundstage generated by most speakers really is.

In my room, nirvana was situated with the left hand speaker 2cms to the left and 5mm forward, the right hand one 5mm to the right. That's the order of change we're talking about here. However, it's certainly a process that any experienced listener should be comfortable with, especially once the goal is appreciated. Fortunately, I was aided by the use of finite element's deeply dimpled discs between the speakers' spikes and my wooden floor, an arrangement that allowed tiny, repeatable adjustments with ease. The final piece of the jigsaw arrived with precise levelling of the speakers, which introduced additional focus, dimensionality and presence to the soundstage, generating an even more emphatic and convincing musical delivery.

▶ obviously unusual and right about the way these speakers sound that you'd have to be wantonly obtuse to miss it.

Ironically, in some respects Avalon speakers have suffered from their greatest strength also being their greatest weakness. Their resolute refusal to add anything to the signal they receive has produced speaker systems of astonishingly low distortion and genuinely low colouration. So much so that they generally leave less of a thumbprint on the music than the driving electronics – an amazing achievement for a transducer but one that's not always appreciated in the marketplace. This almost Protestant adherence to sonic virtue and silent cabinets has led to the speakers being smaller than the competition, with less character – and its character (and perceived value) that customers cling on to.

Let's digress for a moment and examine the way in which those competing products operate. Generally speaking, they might be described as having more scale and weight, "better" bass and more impact – but how is this effect achieved? Hi-fi exists in a physical world and you can't get nothin' for nothin' with physics. Any speaker system can be defined by the balance it strikes between the conflicting and interlocking requirements of bandwidth, internal volume (more generally perceived as external dimensions) and efficiency. Therefore, if a speaker is of a certain size and sensitivity, these should define its bandwidth – at least assuming that the manufacturer isn't exaggerating or "enhancing" the figures. Thus, for many speaker designers their art consists of tricking the ear into believing that there's more coming out of the box than there really is, creating a sense of bass power and impact where it doesn't actually exist. This "voicing" of speakers essentially consists of adding (hopefully) judicious quantities of spurious energy from the cabinet to flesh out the lower registers, adding that sense of increased

### Lowering the cost of living...

One of the most interesting things about the Isis is the way in which it rewrites the cost/quality curve when it comes to building a system. Linn's "front end first" philosophy was born out of a mixture of self-interest and technological necessity. Record players are a mechanical engineering problem and by their nature are expensive to get right. Speakers with crippling severe impedance curves and low efficiency demand amps with big power supplies – and the components in those don't come cheap. But it would be wrong to apply this logic to every system, or to equate quality with price – especially when it comes to different types of product. Just look at the cost breakdown in a horn based

system to see what I mean. But the Isis undermines this in an even more fundamental way. It not only offers a more than reasonable load to the driving amplifier, it does its own job better than almost all other speakers too. Instead of having to control the speaker, bending its output back into some kind of shape, all the amp has to do now is pass the signal, allowing its owner to concentrate on its quality rather than its power delivery. The same applies (to a lesser extent) further up the system. Suddenly, the speaker has become a facilitator, making the system's job easier rather than acting as a choke on performance. The Isis might be expensive, but at least it lightens the load on the rest of your equipment, and its load on your wallet.

body and weight. The problem is that the extra energy won't track the phase and harmonic relationships within the music, which means that it distorts the reality of the performance. Of course, no speaker is devoid of extraneous energy and this is as much about controlling and directing it as anything else. If you think adding controlled energy to the sound is bad, just listen to a few of those speakers where it isn't controlled (pretty much any sub £300 floorstander will do).

Of course, if you want to talk about the subtle manipulation of reality, then you need some kind of recognisable reference for comparison. That generally means a familiar voice or acoustic instrument, which in turn means that such manipulation is more obvious or troublesome with some kinds of music than others. Now consider what that means in the light of Avalon's zero tolerance approach and lighter, more accurate bass output. Not surprisingly their speakers have garnered an excellent reputation for their integration, imaging and acoustic precision – which translates as "good on classical" in the less than Darwinian world of hi-fi retail. You can see how a strength can also

become a weakness... I'm afraid that if you want real, high quality bass extension (which precludes sonic sleight of hand) then you're looking at large drivers and even larger cabinets. Which brings us neatly and far from coincidentally, back to the Isis. Just

imagine a speaker system that combines Avalon's traditional strengths with the electro-mechanical horsepower to generate realistic bass weight and power. Now dream about the possibility of it having sufficient sensitivity and a benign enough load to be driven by real world rather than second mortgage amplification and you're beginning to get the picture. Add in a bandwidth and physical dimensions that coincide almost perfectly with the most

a European listening room can realistically support, together with flawless finish and a shape that makes them seem smaller than they are and you can begin to understand why these speakers are so exciting. It's not just their sonic performance (which is, believe me, exciting enough) but the fact that you might actually be able to realise that potential. ▶



► Enough of such theoretical meanderings; it's time to talk (musical) turkey.

When discussing the Isis, it's meaningless to talk in terms of individual aspects or bands of performance. The whole point about these speakers is the holistic nature of their presentation. So, let's be clear: they go deep, they go high, they go loud – enough in each direction to satisfy. Their focus, transparency, resolution and lack of distortion are all without serious peer, their integration is utterly seamless. What that means is that in real terms they impose no limits on choice of material – and few in use. One colleague, hearing that I had a pair of Avalons at home (and assuming they'd impose a stringent classical diet) asked with a mischievous glint in his eye, what the last record I'd listened to was... Oh the pleasure in telling him, the consternation caused when it turned out to be the B52's first album – and yes, I was playing it very loud!

It's long been an article of faith that transducers have the greatest tonal impact on the sound of a system – because they have the hardest job, taking a signal in one form and converting it to another. Indeed, listen to a range of CD players and you can almost hear them struggling to take all the information and put it back together again. Yet, it never occurred to me until now, that a loudspeaker has to do exactly the same thing. In any musical performance, there's a place for everything and everything has to be in its place. The problem with speakers is that the distortions tend to be so gross, the transducer so inefficient (in energy terms) that the cracks in the mirror get smeared over with the sonic equivalent of a thick layer of Vaseline. In other words, we're struggling to see through the soft focus and whilst we're aware of the discontinuities we can't define their edges. Besides which the ear and brain are clever enough to take this fractured whole and make some sort of sense from it.

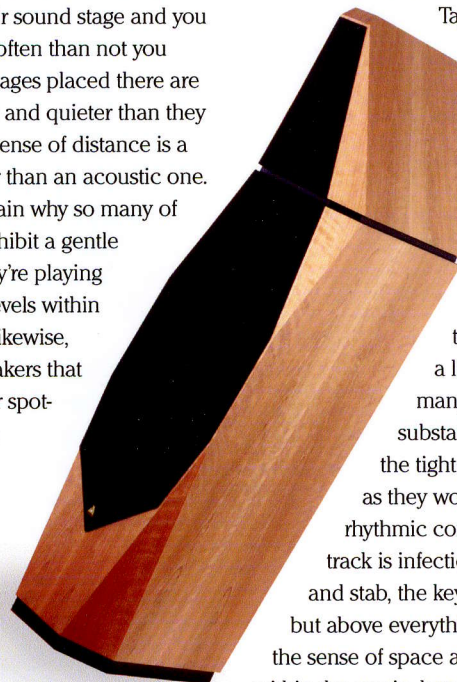
But as well as having a place, every event in a musical performance also has a time, which means that in reconstructing an acoustic soundstage, a speaker must be accurate, quite literally in both time and space. Now, I always knew that imaging was important and often argued that this was so precisely because if the image is right then other equally important things must also be right. But it wasn't until I heard the Isis that I finally joined all the dots in the argument, because until I'd heard the Isis I'd never heard a speaker that really did image right. Let me explain...

Most speakers throw out some kind of soundstage but in most cases it's a very pale imitation of reality. Let's look at a few of the more common distortions. Those speakers that are touted as delivering excellent depth; listen to the far reaches of their sound stage and you realise that more often than not you realise that the images placed there are physically smaller and quieter than they should be. Their sense of distance is a visual thing rather than an acoustic one. Which helps explain why so many of these speakers exhibit a gentle mid-bass dip. They're playing with the energy levels within the sound field. Likewise, very detailed speakers that have an etched or spot-lit soundstage are manipulating the arrival time of upper frequency information. That detail that reaches the ear before it should certainly stands out, but it also appears ahead of the harmonics that should support it and flesh it out.

By now, it should come as no surprise to learn that the Isis is pre-eminent in my experience, when it comes to arranging musical information in space and time. What's more it does so with equal aplomb from

the bass (although not the very deepest registers) all the way to the upper reaches of audibility. Listen to these speakers and they sound both different to what you expect from a hi-fi system and far more natural. Listen longer and you'll realise that it's because the scale of the instruments and performers is totally consistent, wherever they're placed in the soundstage. And I'm not just talking about acoustic, audiophile pressings either. Let's revisit the *B52s*.

Playing 'Dance This Mess Around' (which has to be about as un-Avalon as a track can get) there's real drive to the solid insistence of the drumming, the easy separation of the kick drum and bass as they push the music along. Kate Pierson's vocals are at exactly the right height, Fred Schneider unmistakably behind her on the left.



Taped at Compass Point with Chris Blackwell at the controls this is no audiophile recording. The drum booth crowds the lead singer, the kit spread just a little wide by its many mics, but the substance and energy, the tightness of the band as they work through the rhythmic convolutions of the track is infectious. Guitars jar and stab, the keyboard grumbles, but above everything there's the sense of space and tension within the music, between the musicians. Dance? Play this track through the Isis and it almost physically lifts from your seat.

A step further? How about *Pillows And Prayers*, 99 pence worth of LP sampler from Cherry Red, and as righteous a record as ever was. But with 17 tracks crammed onto its two sides, what price fidelity. Well, just try ►

► Everything But The Girl's 'On My Mind'. There's Tracy, all winsome and right in front of you, with Ben Watt well back on her left. It's a device demanded by the song, her lyric, his distant echo and it works beautifully. So much so in fact, that you can hear quite clearly, both in terms of scale and the way that he's projecting his voice, that this is no studio artifice; he's back there and this is a single take. It's the ability to preserve these cues, to conjure both the sense and the fact of the original performance that makes the Isis so special. Play something stellar like Janis Ian's 'Some People's Lives' and the effect is quite breathtaking, both for its musical realism and the directness of its communication.

The other thing you'll quickly realise is that on smaller ensembles, rock bands and the like, images are astonishingly natural in size and scale. This is due in no small part to the physical size of the speakers, which are after all, near man-sized themselves. But it's a fact that holds good to the back of the stage, such is this speaker's ability to delineate, direct and deliver musical energy. Suddenly, you realise just how emasculated upright bass sounds on most systems just because it's almost always positioned to the rear of the group. The Isis rehabilitates both it and its contribution, the playing clearer, the tone far more complex, the groove coming alive.

Translate that to orchestra and although the images shrink in size, they maintain their consistency and perspective. Concerto recordings no

longer leave the soloist sounding so exposed and over-miced, the orchestra, the life and energy in its contributions, restoring the proper balance. Even something as familiar as the Starker Dvorak *Cello* on Mercury holds new surprises. Not only is the soloist positioned properly on the same stage as the orchestra, and much more to scale, the orchestra is physically larger, laid out flatter and in distinctly serried ranks. The double-basses have real power and weight, a rasp to their bowing to balance the slashing brilliance of the violins. Likewise the Du Pre Elgar, the Heifetz Tchaikovsky and a host of other records about which I thought there was little more to learn. And that's really the point. It's not about how deep these speakers go, or the wonderful bass textures they float so effortlessly. It's not about the lack of glare or edge in the treble, the supremely natural midrange

tonality or the effortless dynamic range. Indeed, you can get speakers (although not many) that do go deeper and throw an even more palpable acoustic space as a result. You can destroy the fragile wonder of their performance if you ask too much of the partnering amp (a point I reached once or twice with the RADIA but never with the Karans). You'll find that this is a speaker that reveals (but doesn't rub your nose in) the acoustic irregularities of your listening environment. These are all factors you need to consider. But what you won't find is a speaker that makes more sense of the music on your discs. This is a speaker that makes you dance

to Basement Jaxx and cry at the end of *La Traviata*, strut with Jagger and conduct the LSO. It delivers you into the heart and soul, meaning and emotion of a performance. It gives you the music...

It's been a long journey, via the Eidolon Diamond, the Nola Pegasus and the Wilson Duette, all speakers that have taught me about aspects of musical coherence and low distortion. But those threads have been bound positively, emphatically together in the Isis. Avalon speakers have long added little of themselves to the musical event, but now finally, Neil Patel has produced a speaker that encompasses the scale, the pattern and the energy of that event – as well as the complexity and nature of that energy. It is the most musically complete speaker I've heard.



#### TECHNICAL SPECIFICATIONS

Type:	Three-way reflex loaded loudspeaker
Driver Complement:	1x 25mm inverted diamond dome tweeter 1x 178mm ceramic bowl midrange 2x 330mm Nomex/Kevlar bass units
Sensitivity:	90dB
Bandwidth:	20Hz – 45kHz
Impedance:	4 Ohms
Power Requirements:	75 – 750 Watts
Dimensions (WxHxD):	38 x 153 x 56cm (actual)
Weight:	100kg ea.
Standard Finishes:	Quilted cherry, curly maple, figured walnut
Special Finishes:	Birdseye maple, walnut cluster burl, myrtle cluster burl (all at additional cost)
Price:	£58000

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