

Opening The Proverbial Can of Worms...

Seeking a set of priorities for cable looms

by Roy Gregory

In Issue 54 we reviewed a system with no electronics. Or to put it another way, we reversed the normal state of affairs or priorities, relegating the boxes and bits that get power to the level of barely relevant ancillaries, instead concentrating on the stuff that holds them up, feeds them juice and connects them together. It's a project I've been planning for a while, but it's not as easy to achieve as you might think. Simply writing about the cables instead of the equipment isn't the point. What I wanted was to look at a coherent approach to these issues, one that enabled us to assess their importance in the great scheme of things. The problem is that few companies embrace all the required components – cabling and supports. The one I settled on was Vertex AQ and I wasn't disappointed. Their unique approach to handling mechanical and electrical interference generated from both outside and within the system produced what can only be described as astonishing results, confirming my long held suspicion that we were seriously underestimating the importance of these issues in the system performance equation.

Nor was this snake oil. These were clearly demonstrable and repeatable benefits, as seen from the fact that Vertex run extremely successful active demonstrations at shows. We are not talking subtle changes here. These are so big they're obvious, smack you in the face, jaw dropping, "how could I not have noticed that?" type



differences. The type of differences that demand a fundamental reassessment of what we do and how we do it. No less a light or more sceptical a luminary than PM said much the same thing when he first discussed the Vertex kit. Well, it's come a long way since then and the results are even more compelling now. The response has to be a complete revision of priorities within the system – frankly, something that's long overdue. The

old "Front-end first" approach was a product of its time and the specific equipment that produced it. But the advent of CD and multi-channel, re-emergence of valves and easier to drive loudspeakers, better cable systems and an appreciation of the importance of the mains have all seriously rearranged the hi-fi landscape and the disposition of and demands on budget as a result. If the equation of cost and quality was the great fallacy of the "Front-end first" philosophy, its complete relegation of cabling and support to inconvenient ancillaries has undermined and hog-tied the advance of both its advocates and its adherents.

What is required is a more realistic and all embracing approach to system set-up; a more coherent overall strategy. So, whilst the Vertex AQ components are mightily impressive, not everybody will want or be able to afford them. Instead of ignoring them, let's take the lessons learnt and see if they can be applied with other product ranges to develop our general understanding and approach.

In thinking about this I developed a visual model or diagram that was used to illustrate the Vertex piece. In it I depicted a system as a ►

▶ pyramid, connected to the ground by its cables and supports. The width of the pyramid's base was defined by the expenditure on and quality of those components. The broader the base the more stable the system, the more musically coherent its performance. Now, apply that model to the "Front-end first" philosophy and you actually end up with the pyramid inverted, balanced on its point! Which goes quite a long way to explaining why such systems have limited overall performance and extremely uneven attributes. You can make them do one thing quite well; it's hard to make them do everything, almost impossible to have them do everything well.

Since then I've developed the model a little. Rather than a pyramid, think of a stack of wooden blocks, each representing an element within the system: the width of each block represents its quality, its height the cost. The taller the stack, the better the system: the broader the base the greater the musical coherence and stability. In fact, systems which offer a square (or even oblong) profile will function perfectly well, although I guess our object should be the widest, lowest block possible. Unfortunately, the vagaries of different technologies and the costs involved in different components mean that some things will always cost more than others for a given quality.* But the simple geometrical law is that stability will suffer as soon as the equipment

quality over-reaches the quality of the supporting elements: The narrower the footprint of your base block, the more precarious the stack that results. Likewise, move one element in the stack left or right of centre, have one element that is of much "narrower" quality than the others and stability again becomes critical.

It's a useful model, helping us visualise system structure and construction, initial make up and future upgrades. Like all such



things it probably needs a name so let's call it "foundations first" because, building a system is pretty much like building a house. What you can build and how high you can build it depends completely on the foundations you've set in place. What's more, adding to or revising those foundations at a later date tends to be disproportionately expensive, so it's worth getting it right the first time around, as well as building in a little spare capability!

Of course, the notion of such a foundation is suggestive of a single, unified entity. In practice, when it comes to hi-fi we need to assemble it out of different parts. The great divide in this case comes between signal and support, cables that pass

signals or power and the racks or platforms that isolate equipment. Fortunately, we are some way down this road, having already done some considerable work in the area of supports back in Issues 41 and 46 (in part the results of which motivated the "full Vertex" review). Now, as I've already said, companies that embrace both camps are few and far between: beyond Vertex I can only think of Russ Andrews (Kimber and Torlyte) and Music Works (with their own mains loom and association with Quadraspire). We'll return to these later, but in the meantime let's examine a range of offerings from different cable companies to see if it's possible to establish a generalised set of priorities or hierarchy when it comes to wiring a system.

The cable systems chosen differ enormously, at least from the outside, with contrasting conductor materials, dielectrics, terminations, geometries and physical characteristics. But conceptually at least, in the coherent way in which they approach the problem, they have a surprising amount in common. The most complete (in terms of coverage) comes from Nordost, combining their Tyr cabling, Brahma mains leads and Thor distribution block with its RF filtering and Quantum technology. In contrast comes the stark simplicity of the Crystal Ultra, similarly expensive in range but with a conceptually far simpler (but beautifully elegant) distribution block. The question is, given the range of materials and technologies on offer, how consistent will results be and how clear a hierarchy of application exists? More to the point, can lessons learnt here be applied to other cable systems? We'll find that out in the next issue, with offerings as varied as Chord, Magnan and a few in between... ➤

Take for example, a high efficiency horn design with expensive drivers and a large and complex cabinet. These are going to cost well into five figures for a pair, yet they could be driven by a power amp of just a few watts that can be built to a very high standard with a relatively small budget. So, system dynamics and architecture imposes its own logic - which is how we ended up in the "Front-end first, my way is the only way" mess in the first place.

Top Tyr...

Taking a step back from Valhalla

by Steve Dickinson

Cables, eh? Can't live without 'em, can't show 'em off to friends at dinner parties...

Whatever your take on cables, from unreconstructed nihilist, ("once you've reached a basic electrical standard, all cables sound the same, ergo manufacturers of expensive high-end brands are charlatans and their customers fools") to unapologetic advocate, ("cables are as fundamental to the quality of a system as the active components and badly-chosen cables will ruin the potential of good components as surely as well-chosen cables enhance them") you're still going to need something to connect the boxes together and feed them with power. We've long since moved beyond "All properly-designed amplifiers must sound the same." Those who trust their ears also recognise that different cables sound not only different, but that those differences can be qualitatively, if perhaps not yet quantitatively, assessed. From that follows a need for a system-building strategy similar to the one for the boxes. Accepting the need to give some thought and funds to cabling, where to start?

In this case I took a middling decent system, connected it up with eminently respectable [Chord Chorus] interconnects and [Chord Epic Twin] loudspeaker cable, and the supplied mains leads. More complete and planned than what feeds most of the systems out there, but just the sort of thing you could pretty much walk into any decent high street dealer and take home. I then changed various parts of the cable loom, upgrading to Nordost Tyr, Brahma and Thor, in order to assess their contributions to the whole, but in

this case starting with the speaker cable and working backwards to the mains. The system sat on a Quadraspire acrylic reference table throughout.

That Nordost have evolved a distinctive house sound is indisputable. Fast, crisp and loaded with so much treble energy they can make other cables sound distinctly rolled-off, they are not for everybody. There is also a distinct hierarchy, from middling-dear to "Buy that and I'll divorce you" with consistent progression and improvement as you move up the price range. This consistency is one reason why I'm happy



to take Nordost's claims at face value. They are clearly onto something (as opposed to being simply on something).

The introduction of the Tyr range is a slightly mixed blessing. Intended to build on the strengths of the, rather fine, Valkyrja I've been using for, gosh, over three years now, it aims to elevate performance at the Valkyrja's price point, while simultaneously dropping one rung down Nordost's hierarchical ladder to third position. Pretend that doesn't matter to you, if you like. What considerably eases the pain is that that's only because the previously peerless Valhalla has

been usurped by Odin. Valhalla remains unchanged in the product range, its performance undiminished but now overshadowed by Odin, reviewed with some approval by RG in issue 51. The technology employed across the range has been discussed before, and the basic differences between the materials and topologies in the current line-up covered amply by RG in his review of the mid-table Frey in issue 42 so I'll recap only briefly. Tyr differs from Valkyrja in using different numbers of heavier, 22AWG, monofilament cable and employing the twisted-pair dual-filament spacer

technology from Valhalla, to further reduce contact between conductor and outer sheathing, dielectric duties therefore being mostly covered by the air gap. Completing the line-up is a set of Brahma mains leads (RG, issue 38), occupying the same sub-Valhalla position as Tyr (for some reason Nordost nomenclature treats the mains leads differently, except for Valhalla). These replace my existing "entry-level" Shiva mains leads, and are now to be fed from a Thor distribution block, (RG again, in Issue 35) rather than my old 6-way Russ Andrews Silencer block. So I now have not only a coherent cradle-to-grave Nordost loom, but also one comprising elements from the same hierarchical level in the system.

Listening to the standard, non-Nordost system, it was striking how many of the hi-fi attributes I took for granted were absent. In 'Amado Mio' from Pink Martini's *Symphatique* album (WRASS 143), voice was front and centre, but everything else was an afterthought. Percussion was vague, bass plodding, and the piano was mostly lost in the *melée*. This from a ▶

▶ track normally so full of ebullience it can hardly fail to lift your spirits. The next track, 'No Hay Problema' was, frankly, blurred. This album, in case you don't know it, is a gem, but this system was rendering it as if it were the accompaniment to a cheesy 1970s caper movie, rather than the exuberant celebration I know it to be. Similarly, Jools Holland's 'Birdcage Walk', from the *A-Z Geographer's Guide to the Piano* (ALTOCD 1) lost all its sense of fun, the timing was off, bass vague, no dimensionality, sense of space or instrumental placement. Definitely time for a change, then.

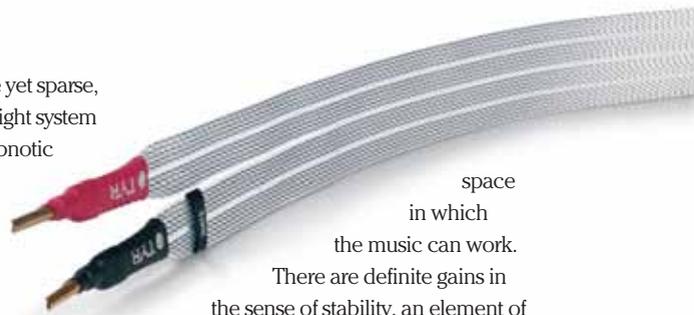
Replacing the speaker cable with the Tyr brought about rather less in the way of improvements than I might have anticipated. Sure, it was better in most respects, but if I'd spent my hard-earned on this cable, I'd feel distinctly short-changed round about now. Piano was tighter, and had lost a lot of the blurring distortion you commonly get, leading edges of notes were better, cleaner and faster, percussion was more tactile, with more 'snap', bass more rounded-out and tuneful and there was more of a sense of musicians working together, but hell, this was just not the cable I knew it could be. It didn't even have that much of the Nordost signature treble. A couple more tracks to confirm these characteristics and it was obvious, more was required.

Working backwards again, I replaced the Chorus with a Tyr interconnect. This time, 'Amado Mio' was, if not an unqualified success, then certainly a much more rewarding experience. The opening harp glissando was significantly more tactile, consisting of clearly plucked notes rather than the blurred smear previously heard. Midrange had filled out, making a valiant attempt to bridge the gap 'twixt bass and treble, and the piano took its rightful, crucial, place in the mix. The exuberance was definitely beginning to show through.

Here's a test: Steve Reich, *Six Pianos* (DG 439 431-2). The music is typical Reich: depending on your viewpoint, either mesmerisingly subtle and compelling or

stupefyingly repetitive. Dense yet sparse, uneventful even, but on the right system it can draw you in with its hypnotic allure. Played on the system as described, it was boring. If you'd told me it was six pianists doubling up on three pianos, or even two or three (very busy) pianists, I'd have had no way to refute it. The payoff in this piece is in the way the music subtly changes every few bars. One piano changes a note, or an emphasis grows on a repeated figure while another recedes. The music shifts and changes, like wind-whipped sand on a beach. With the system as it stood, most of this was simply smoothed over and the result was a maddening, enervating mishmash, the playing of which would probably be banned under the Geneva Convention. Changing the mains leads from freebies to Brahmas brought about easily the biggest change of the day, so far. The six pianos snapped into focus, each nuance and shift becoming not only discernible, but musically relevant, whole layers of texture revealing themselves. The opening track, 'At Home', from Tord Gustavsen's latest album *Being There* (ECM 2017) revealed a significant reduction in hash, a better sense of note, it was simply more tuneful. Rhythm, particularly the brushed percussion, was more tactile, vivid and three-dimensional with a longer, deeper decay to cymbals. Bass was more low-key, not recessed just less dominant, more in its place. Gustavsen's music is thoughtful, he eschews drama in favour of a more considered, measured approach. A system lacking in subtle discrimination could leave you thinking this was cold, soulless and dull. On the right system, it calls to mind the bleak beauty of northern European flatlands in Winter, on a lesser system it's rather closer to a damp February in Lancashire. More upbeat music, back to Pink Martini and 'Tempo Perdido' from *Hey Eugene* (WRASS 193), is altogether tighter and much more dynamic.

Nordost's Thor completes the picture, and brings benefits in terms of a still, silent



space in which the music can work. There are definite gains in the sense of stability, an element of structure and palpability borne out of a solid, inky black background. Clearly if this is a foundation, it is a most secure one. *Six Pianos* is revelatory; to the gains from the Brahmas we can add a more certain sense of six musical instruments, located in space, each with its own acoustic volume and subtle timbral differences. There is a trade-off: leading edges to the notes sound less acute with a consequent loss of attack, diminishing the sense of speed and dynamics; 'Tempo Perdido' again, and we've lost some of the snap and immediacy, it sounds quieter. This is a repeatable phenomenon, many gains, some losses but Thor allows higher levels, restoring dynamics without apparent effort. Some may feel the loss outweighs the gain but I have no doubt that for much material, particularly classical, large-scale stuff, the solidity and unshakeability of that acoustic space is necessary to allow the music to work. For tighter, faster, more intimate music, the sans-Thor attack and dynamics is undeniably attractive but, possibly not entirely truthful.

To complete the experiment, I re-introduced the cheaper interconnect and speaker cables in turn, and now the differences were much more pronounced and in keeping with what I know of the Nordost cables' strengths. Chorus interconnect loses low level detail, cymbals are more damped, atmosphere and space more constrained, Tyr restores the full, lush beauty and rich instrumental timbre. Epic Twin speaker cable is softer focus, with less tuneful, more plodding bass. Which is emphatically not a criticism of the Chord cable, remember it is scarcely a tenth the price of the Nordost, it is a reminder that, without the mains stuff in place, the more expensive cables simply couldn't ▶

► deliver. In many ways this is good news. High-quality mains leads and conditioners are rather less expensive than top flight interconnects and speaker cables. We are back, in a curious sort of way, to the “Front-end first” philosophy, except that now, the front end is the mains socket at the wall, not the music source.

The benefits wrought by the Thor and the Brahmas are well-documented in RG’s reviews, suffice to say in this system the Thor kept everything firmly anchored and the Brahmas eliminated a layer of grain which was part of the price for the cheaper Shivas’ clarity and directness. The Brahmas do much more than just eliminate the grain, however, everything from this point forward just feels better nourished. I know that’s a very anthropomorphic analogy, but I don’t care. There is another, curious effect of the pairing in that the music opens out, temporally. It’s obviously not slower, although it almost seems so, but there’s a clear sense that the musicians are not hurried, they have more time to create the notes. It’s not languid but it is relaxed, and they sound like better musicians in consequence. Don’t make the mistake of assuming this robs the music of impact. There’s a world of difference between stress and drama and even if the Thor does sound quieter, you can always turn up the volume and when you do, there is manifestly less strain.

There is one small irritation, the Brahma leads are quite fat, somewhat stiff and rather springy, which makes cable dressing a bit like arranging a box full of puppies. So if you’re concerned about cables touching walls, or twisting themselves out of their sockets (they can, and do) then leave a decent space behind your supports and don’t attempt this when you’re short of time or patience.

The Tyr interconnect shows its superiority over Valkyrja, a quieter noise floor, less hash, and a better sense of

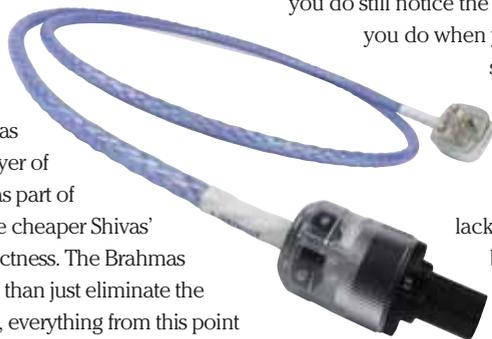
space are the primary, obvious benefits, but coupled with them, and crucially in the context, is much improved bass definition. People who don’t know Nordost cables will claim they are bright; those who do counter-claim that they just don’t lose as much treble energy as other cables. What is not disputed is that what you tend to notice first is the treble. Then, when you acclimatise, you realise that the effect is broad-spectrum after all. But you do still notice the treble, rather like you do when you first hear a

speaker with a top-notch tweeter, but now as something you previously lacked. Tyr is different, but possibly you’d only be aware of this coming from a lesser

Nordost cable. Bass gains a significant degree of weight, tunefulness and control, while treble gains sweetness and loses grain. I found myself wondering if Valkyrja was voiced more towards the top end, but switching back, it is clear that Tyr concedes nothing in terms of treble energy. The overall effect is of a far better balance. The Tyr loudspeaker cable further underlines the beneficial effects which is why, I think, Nordost occupies such a special niche. Other high-end cable makers also have a hierarchical system but few exhibit such consistency of performance across mains, interconnects and speaker cables such that each complements the others and adds to the strengths, with such a coherent sonic signature.

The nay-sayers still maintain that cables (by which they mean interconnects and speaker cables) are, at best, expensive tone controls. And my experiences here would suggest that they have a point, up to a point. Certainly, exchanging the lesser cables for expensive Nordost ones wrought far less benefit initially than might be expected for the price. Until the mains was addressed, that is: that

done, everything started to make much more sense. The difference between the two sets of cables is not just obvious, it is fundamental to the ultimate performance of the system. All of a sudden, the expense of the high-end cable is justifiable. It seems we have another hierarchical approach to consider and it starts way in front of the source. On the evidence of my own ears, properly designed mains leads and distribution boxes are crucial to getting the best performance out of your chosen hardware. Further upgrades, whether to componentry, interconnect or speaker cables, are pointless, until you know how your existing equipment sounds with a properly sorted mains feed. Front end first? You betcha, but only if you go right to the very front. ➤+



Nordost Tyr cable

Interconnect, WBT NextGen Phono plugs, 1m pair, £1249.95; 1.5m pair, £1,434.95; (per 0.5m increment, add £172.50)

Loudspeaker cable, single or bi-wire termination, 3m set, \$4,311.95; 5m set, \$5,747.95; (per 0.5m increment, add \$359.00)

Nordost Brahma

Mains leads, 2.0m with 10A IEC plug, \$899.95; (per 1.0m increment, add \$160.00; 16A Wattgate IEC add \$50.00)

Nordost Thor

6-way power distribution box, £1649.95

UK distributor:

Activ Distribution
Tel. (44)(0)1635 291357
Net. www.activdistribution.com

Manufacturer:

Nordost Corporation
Tel. +1 508 881 1116
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