

# ‘No, it’s not a rabbit...’

NAIM’S STEVE SELLS ON REINVENTING THE COMPANY’S INTEGRATED AMPLIFIERS, AND WHY IT’S KEPT THINGS SIMPLE WHEN IT COMES TO TAPPING INTO THE ‘VINYL REVIVAL’

ANDREW EVERARD

For the launch of its new Naim amplifiers, Naim did things slightly differently. The famous listening room at the Salisbury factory was out of action, undergoing a revamp that’s seen not only a couple of the celebrated green sofas sold off for charity, but also some light being shed into the darkness with the addition of windows – well, windows with shutters, anyway. The old set-up, put together in the days when Naim was an audiovisual company with the likes of the *DVD5* player and *n-Vi* all-in-one surround player/amp, has given way to a more purist two-channel configuration, more suited to demonstrating the current range – and that of stablemate Focal.

So the event was moved to the rather pleasant demonstration room of Bath retailer Audience, housed in a city-centre terrace of the familiar honey-coloured stone just a stone’s throw from the river, Pump Rooms and Abbey.

Master of ceremonies for our introduction to the new amps was the company’s Technical Director – Electronics, Steve Sells; he’s a familiar face at such launch events worldwide, and soon to clock up 18 years in Salisbury. Having worked on everything from the *Statement* pre/power amps to the *Naim for Bentley* system, core products including amps and preamps – and yes, the *DVD5* and *n-Vi* – Steve is the kind of person one finds oneself calling the ‘keeper of the flame’. And this is a role he fulfils with an absolute commitment to the Naim process of continual improvement, all in the quest for enhanced sound quality.

## Beyond the phono stage

That, he told me, informed some of the decisions behind the development of the *Naim XS 3* and *Supernait 3*: each replaces a core model with a six-year history on Naim’s books, neither of which were actually flagging in popularity. ‘The biggest headline, of course, is that we now have a moving magnet phono stage in both amplifiers, but, as Sells put it, ‘We couldn’t just leave it at that: we’re working on amplifiers all the time, so we’ve done some tweaking to get more emotion out of the amps, and some more pace out of them.

‘We’ve gone for a fixed moving magnet – this way we can do a really sweet little stage, and not

need switches for different modes, all of which get in the way of the sound. So what we have an initial flat gain stage, followed by an RIAA equalisation stage that’s part passive and part active. It’s the same topology used in the *SuperLine* offboard phono stage, and in both we use quality film capacitors – however, these days we match them to a tighter tolerance.

‘The main difference between the phono stages in the two amps is in the quality of the components used, but even in the *Naim XS 3* we’re using really high quality Burr Brown *OPA2604* op amps, while in the *Supernait 3* we’re also using through-hole resistors for improved resistance to vibration.

## A little wiggle for better sound

‘Why? Well, if you have a PCB with a surface mount resistor on it, the board flexes and stretches and compresses the resistor in response to soundwaves, modulating the resistance of the device, and of course this is happening slightly out of sync and phase with the signal passing through the component. Through hole resistors, with the little wiggle we put in their legs, are mounted compliantly, so avoiding these effects.

‘Capacitors, too, make a big difference to how a phono stage sounds: the input ones are polystyrene, chosen for their low dielectric absorption. Other kinds of capacitor can store some charge in the insulator between the plates – polystyrene ones don’t do that, so even though they’re out of favour, being hard to make, we use them. They also have to be soldered in by hand, but for the bigger values we can’t get polystyrenes, so we use film capacitors.’

Moving on to the bigger picture of the phono stage, Sells explains there are various ways of designing such a circuit: ‘You can get a completely passive equalisation stage, which is pretty cool, but is also noisier, so that’s a bit of a compromise for some people, or you can put all the equalisation around an amplifier, which is really compact, efficient and cost effective, as well as good on transient headroom.

‘In the *Naim XS 3* the phono board is screwed down to the chassis, but in the *Supernait 3* it’s on a board mounted on pillars to isolate it from the transformer vibrations, and we’ve also looked into the magnetic lobes of the transformer, and moved