

A System of Note

CHRIS FRANKLAND TRIES A COMPLETE AUDIO NOTE (UK) SYSTEM, WHICH ACTUALLY COSTS MUCH LESS THAN MANY OF THE BRAND'S AUDIOPHILE COMPONENTS



When asked if I would like to start reviewing again, I was in two minds. It had been many years since I had hung up my professional ears and although I had kept up with developments as an interested onlooker, was I ready to dive in to the role of reviewer again?

Having visited many retailers and manufacturers as a journalist over the years, what really made up my mind was discovering that I still enjoyed listening to good hi-fi, and that what makes a good hi-fi system or component is the same for me today as it always was. Realising that I was excited at the prospect of listening critically again, I agreed.

But what would I review? Especially since I think there has never been a more interesting mix of products than we have today. The answer came while interviewing Audio Note (UK) boss Peter Qvortrup (*HIFICRITIC Vol10 No1*). I told him I'd be reviewing again, and smiling broadly he said: "That'll put the cat among the pigeons!" But he then came up with the idea of reviewing complete systems – either all from one manufacturer, or a collection of components that one manufacturer believes particularly complements its own. I thought this was

a splendid idea, and so did the editor, so I suggested to Qvortrup that he should be the first to submit just such a system for me to review.

For those who don't know, Audio Note (UK) is a specialist hi-fi company based in leafy Sussex, not too far from Brighton. It is unusual in that it makes everything from cartridges, to arms, turntables, CD players, amplifiers and speakers, and is maybe best known for valve amplifiers that can top £100,000. (A pair of Audio Note (UK)'s *Kegon Balanced* monoblocks, reviewed in *HIFICRITIC Vol9 No4*, are £75,000.)

Founder Peter Qvortrup is a self-confessed perfectionist and every step you climb up the Audio Note (UK) system hierarchy has been painstakingly backed up by electronic component R&D and meticulous listening. Metallurgy underpins much of the fundamental design, using the purest metals and conductors. Capacitors and resistors are carefully sourced, many designed to be non-magnetic using silver and silver compounds, and all chosen for their sound quality. Except for the least costly models, amplifiers are pure Class A single-ended triode designs with zero feedback, with no signal-coupling capacitors, and with in-house custom-wound output transformers matching the characteristics of the valves and speakers precisely. This underlines Audio Note (UK)'s quest to achieve the ultimate performance from its amplifiers, whatever it takes (and for those who can afford it).

In the past, I will admit to having been utterly underwhelmed by many of the US valve amplifier designs I heard when I was last reviewing, which had pretty much turned me against them in favour of transistor designs. I liked a couple of UK examples, such as Tim de Paravicini's excellent EAR 509, and the Paravicini-designed TVA amplifiers, but they were very much the exception. So, for my return to reviewing, I would never have imagined a valve-based system would be my choice.

What gave me the confidence to go with the Audio Note (UK) system was the fact that I had heard Qvortrup's own top-level system at his home on several occasions and had been mightily impressed by it on a wide variety of music on both CD and vinyl.

I recall remarking to him: "Valve amps aren't supposed to sound like that!" His system was clean,

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detailed, open, punchy, dynamic, rhythmic and musically extremely compelling and worked superbly well on a huge variety of music from dubstep/ breakbeat to classical guitar and cello.

Qvortrup has always propounded the philosophy that a system must show the differences between recordings. To quote him from my recent interview: "We only know one thing about recordings and that is that they must be different. Because they are made by different people at different times using different equipment, in different rooms with different recording and cutting equipment. The equipment that contrasts recordings the most has got to be the best."

Qvortrup's home system certainly more than lived up to those ideals, but would the more modest <£12,000 line-up reviewed here retain any of the qualities of a system where the amplifiers alone topped £100,000? All will be revealed...

The Review System

For now, let's look at what you get for your money. The review system consists of a *TT-1* turntable (£950), with *Arm-One* (£654) and *IQ3* moving magnet cartridge (£612); *CD 1.1x* CD player (£1,935); *OTO SE Phono Signature* integrated amplifier (£3,950); and *AN-J Lx Hemp* speakers (£3,150 plus £400 stands). Bi-wired Lexus copper speaker cables are used.

The *TT-1* turntable is based on an old Systemdek design, to which Audio Note (UK) bought the rights. Much improved, it features a three-point suspended subchassis, and the plinth is vinyl-wrapped chipboard, in black, cherry, rosewood or light ash. The aluminium extrusion subchassis hangs from three coil springs that operate in extension rather than compression (which is less effective). The armboard is also made from aluminium and bolts firmly to the subchassis.

The turntable main bearing uses a steel shaft running in an oil bath on a captive ball. It's

machined and assembled in Austria, at the same factory where the loudspeakers are made. Drive is provided by a 24-pole synchronous motor *via* a round-section polymer belt. Both the sub- and main platter are acrylic. The motor drive pulley has two radii so 33 and 45rpm can both be achieved by moving the belt.

Setting up will normally be done by Audio Note (UK) or one of its retailers, and it survived the trip to my house well, needing no subsequent tweaking or fine adjustment. The *TT-1* is the least expensive of Audio Note (UK)'s offerings and has two bigger brothers (the *TT-2* and *TT-3*). The latter are based on the respected Voyd turntables and use two and three motors respectively (see *HIFICRITIC Vol2 No4*).

Audio Note (UK) also makes three pickup arms, logically called the *Arm-One*, *Arm-Two* and *Arm-Three*, an *Arm-One* being mounted on our *TT-1*. The arm bearing for horizontal movement is a single vertical steel shaft sitting on a ball bearing; vertical movement is achieved by a steel cross pin located by three ball bearings on either side of the main yoke. The headshell and arm tube are machined from a solid tapering piece of aluminium that's thickest at the bearing housing.

All three arms use the same mechanical components and vary only in internal wiring: the *Arm-One* uses *ANA* copper cable, *Arm-Two* uses *ANV* silver cable and *Arm-Three* gets Audio Note (UK)'s *VX* high purity silver cable.

The chosen cartridge was the *IQ3* moving magnet design, which uses the same titanium cantilever as the company's *IoI* moving-coil, and a *Type 2* diamond stylus assembly made in Japan. Weighing 6g, the body is POCAN polymer, with threaded inserts for easy mounting. The cartridge coils are high-purity 'four nines' copper wire, with a specific output of 6.5mV. This wire is the same in all three MM models, as Audio Note (UK) has found it impossible to find silver at so small

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a gauge. The cartridge body and internals are the same throughout the range, so upgrading simply involves swapping the stylus assembly.

The other source component is a *CD1.1x* CD player. Audio Note (UK)’s entry-level player uses a Philips *L1210* laser and a Philips *TDA1513* 16-bit DAC. In common with all the company’s CD players, it has no oversampling and no analogue or digital filtering. The audio circuits use a single *6111WA* miniature double triode valve, operating in stereo. There are no exotic components as this is an entry-level machine, apart from using selected Beyschlag resistors and superior tin foil capacitors.

The beating heart of the system is arguably the *OTO SE Phono Signature* integrated valve amplifier. The *OTO SE Signature* (*phono* and *line* models) is the least costly integrated amplifier in its range to use Audio Note (UK)’s in-house, custom-wound HiB double-C-core output transformers. As you progress up the amplifier range, higher-spec transformers in the power amps feature cores with a higher nickel content, culminating in the top-level power amps with one that employs 55% nickel.

Whereas lesser *OTO* models use *6005* output valves in push-pull configuration, the *SE Signature* variants are a 10W single-ended design using two *EL84* pentode valves in parallel per channel, operated in triode mode and using very little feedback.

The company says that making its own transformers allows them to be precisely tailored to the characteristics of the amplifier and loudspeakers. And while applying higher levels of feedback to the *OTO SE Signature* could reduce measured harmonic distortion, this has also been found to sound worse.

OTO SE Signature models also benefit from some upgraded components, for example by using copper foil capacitors and 1W tantalum resistors. All internal wiring is point to point using copper wires here. Amplifiers further up the AN(UK) hierarchy benefit from non-magnetic components, silver wiring, high-spec transformers and 300B triode output stages. Black Gate capacitors are found in the power supplies, no signal coupling capacitors are used, and circuitry is strictly zero feedback.

The chosen loudspeakers in our review system are a two-way design called the *AN-J/Lx Hemp*. The *Lx* bit refers to the *Lexus* copper cable that is used internally (and is also connects the speakers to the amplifier in this system). *Hemp* denotes that this model uses a paper cone made from hemp (as distinct from the usual wood pulp). The cabinets are made from birch plywood and are undamped internally. A rearward-firing reflex port is used to enhance the low frequency output.

The bass/midrange driver is a 200mm unit,

custom built with a foam surround. Audio Note (UK)’s Andy Whittle tells me that selecting hemp avoids certain colorations and helps it deliver better transient decay than the paper version. This 200mm unit hands over to a 25mm SEAS textile dome tweeter, and both units are matched as pairs. The simple 2nd order (12dB/octave) hard-wired crossover uses air-cored inductors (because they sound better than ferrite), plus wirewound resistors and metallised film polypropylene capacitors.

Once assembled, every pair of speakers then has its crossover fine-tuned by hand to achieve a close match. High efficiency was a major aim for Audio Note (UK), so that the speaker would make an ideal partner for its modest-powered valve amps. The claim of 93dB for the *AN-J* certainly sounds rather impressive, but it’s also somewhat controversial, as it’s not based on the 1W, 1m measurement standard. Its undamped cabinet is also controversial, and the *AN-J* also flies in the face of convention by avoiding the narrow-baffle approach found in many modern designs. Qvortrup comments: “There’s a lot of fashion in audio engineering, and speakers are a great example.”

He continues: “There’s a principle called damping by mutual inductance – and there is clearly something happening between the voice coil of the speaker and the output coil – the secondary – in the amplifier. If you tailor it correctly, you can improve that aspect. We have optimised performance between the output transformer secondaries in our amplifiers and our speakers.”

Qvortrup readily admits that the original inspiration for these speakers was US designer Peter Snell. Qvortrup knew him very well, sitting in on many fine-tuning sessions with him and learning a lot from those. Before Peter Snell died in 1984, Qvortrup negotiated a deal to buy the IP rights to various of his designs. These could not be made under the Snell name, as Snell was bought by Boston Acoustics in 1995 and a whole new line-up of speaker was debuted at CES that year. Snell ownership later passed on to D&M Holdings in Japan in 2005.

Let’s slap convention in the face one last time. Audio Note (UK) suggests that the *AN-J* speakers are intended for corner placement, and should be toed in towards the listener for best results and stereo image. So that is how they were set up for the review.

Sound Quality

Qvortrup has slowly developed the original Snell designs, which apparently took weeks of trial and error. The results can be judged here, as it’s at last time to put on the professional ears and listen to a system that is now taking pride of place in the



lounge. The amplifier and speakers have been given a good long run to loosen up and bed in before commencing critical listening.

I went straight in with an old-time vinyl favourite of mine, lowering the *IQ3* stylus onto the title track of Bonnie Raitt's superb 1989 album *Nick of Time*. I was immediately captivated by the great, driving and purposeful rhythm that the system conveyed, with really tight drum and bass lines. Vocals were beautifully open and articulate, and the backing vocals on the chorus were convincingly handled. All in all, this was a great rendition of a great track.

Next onto the *TT-1*'s platter was that Herbie Hancock classic *Watermelon Man* (from the album *At Newport '63*, by Lambert, Hendricks & Bevan). Once again things really swung, vocals were beautifully separated out and George Tucker delivered a great bass line. The atmosphere of the recording is well captured, as was the amazing trumpet playing of Clark Terry and a soaring sax solo from Coleman Hawkins. This great 1963 mono recording sounded simply superb on the Audio Note (UK) system. And how were those speakers doing, toed-in and sitting in the corner of my room? Just great. Is the bass booming? No. Is the sound woolly? No; it's fast and pacy. So far, so good.

Next on the turntable is one of my all-time favourite albums, Larry Carlton's *Sleepwalk* (1982). I kick off with *Blues Bird* and (wow!), Carlton's guitar playing is breathtaking with the note shape and attack wonderfully conveyed – you can hear how each note is shaped, held and released. Abe Laboriel's bass line drives it all along nicely and I also revel in the delicacy of percussion lines, thanks in no small part, I come to discover, to the very capable and captivating OTO SE Phono Signature amp.

Sleepwalk from the same album sounded equally convincing. Carlton's breathtaking performance on the Valley Arts strat proved a delight on this system. Drums are tight and punchy, and Pops Popwell's bass line is rhythmic and tuneful. Overblown because the speakers are in the corner? No. Woolly because they are reflex loaded? No. Interesting...

Another favourite artist, James Taylor's 1974 *Walkin' Man* album is spinning on the platter. The title track is cued up and I'm immediately impressed by the crisp, delicate guitar sound and the open vocal quality. Fine percussion is handled well, and the bass guitar line is full and tight.

A little bit of blues next, and I'm very pleased by Lightnin' Hopkins' guitar on the track *I'm Takin' a Devil of a Chance*, from the 1964 mono album *Down Home Blues*. This has a great drum sound, his distinctive voice is well handled, and the bass line drives the track along well – it is clean, syncopated and simply swings. This system is really impressing me with its detail, pace and dynamics, and has the ability to make a track really swing.

Comparisons

Out of interest, I set the *OTO SE Phono Signature* up against a well respected transistor design (no names, no pack drill, but it stacks up on price and reputation) in order to establish a benchmark in my mind.

On the track *Dance With Me* (from Earl Klugh's 1977 album *Finger Paintings*), I am struck by the openness, delicacy and detail of the guitar sound on the *OTO*. The note shapes are clearer, and the attack of each note is cleaner. You get more of a sense of body resonance on the *OTO* too.

On that old classic *Jack and Diane*, from John

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Cougar Mellencamp’s 1982 album *American Fool*, again the guitar lines seem cleaner on the *OTO*, and the percussion is better defined and more delicate. Drum beats and vocal phrasing both seem cleaner.

Carlton’s *Sleepwalk* gives a similar result and the *OTO* handles his guitar with great delicacy. Does the transistor amp sound a bit cleaner on the bass line? Perhaps. The *OTO* is maybe a tad full, but the detail, rhythm and drive are there and it acquits itself superbly overall.

So how does the *TT-1* turntable stack up against the competition? Again I put it up against a very well-regarded (and in this case considerably more expensive) design, and while the *TT-1* doesn’t quite have the grip on driving kick drum beats, such as those found on Eric Clapton’s *Lay Down Sally* (*Slowhand*, 1977), it still did well, and could even be preferred in certain areas. On the *TT-1* the tricky, deep bass guitar line found on Carlton’s *Sleepwalk* was perhaps not as tight as it could have been, but percussion was in some ways more subtly conveyed, and I felt that some guitar and synth detail actually favoured the *TT-1*. On balance, the *TT-1* therefore performed exceptionally well and I should have no hesitation in recommending it as a good buy at the price.

The CD player too has much to commend it. I compared it to one or two other good quality designs, and found that it shares much of what makes the *OTO* so good – an open delicacy on guitar and vocals, crisp and punchy drumkits, and driving, tuneful bass guitar lines.

The vocals on Ben Sidran’s *Sunny Side of the Street* (from the 1992 album *Enivré d’Amour*) are splendidly articulate and open, percussion is delicately syncopated, and the driving bass line that underpins the track never falters yet is never overfull.

Faithless Love is a great ballad from the superb J. D. Souther album *Black Rose*, and I was struck by the beautiful guitar sound, the open and coherent vocals and phrasing and the embouchure on the oboe. The emotion and ebb and flow of the track are beautifully conveyed.

The *CDI.1x* performs superbly on the title track of guitarist Jonathan Butler’s *Deliverance* album (1989), transmitting the complex rhythms and layers of the track’s drum and percussion lines without splash or harshness. The whole track really hangs together. Butler’s guitar shapes notes beautifully, with detail and feeling, and the emotion in his playing is well expressed. This CD player is a class act that turns in a musically convincing performance.

The *AN-J Lx* speakers sounded stunning too and seemed to complement the rest of the system rather well. They might not have fashionably narrow

baffles, but they nevertheless deliver in the ways that matter, sounding detailed, dynamic, tuneful and pacey without being harsh. They let the music start and stop, ebb and flow, and do so without imposing their own character. I will be in no hurry to see them returned.

Conclusions

To sum up, after living with this excellent system from Audio Note (UK) for some weeks, I’ve found it extremely easy to listen to a wide variety of music, which it conveys in a pacey, detailed, delicate and compelling way. The *OTO SE Phono Signature* in particular is a honey of an amplifier: it conveys great subtlety, delicacy, emotion in vocals, detail on percussion and note shape and phrasing on guitar. It makes saxes sing and bass lines bounce.

Critics often feel compelled to answer the question: is it perfect? But how could it be? If a gift horse opens its mouth, do we have to stick our heads inside? For the asking price, this system delivers a well-rounded performance with which it is difficult to find serious fault. Do any minor imperfections detract from its enjoyability? No. Does it share some of the qualities and magic I heard in Peter Qvortrup’s top-of-the-line system? Yes, it does. So just sit back and enjoy it – I know I will.

