

Diamonds in the Ring

The high end moving coil cartridge market is a hotly contested one, with some big hitters ruling the roost. Tony Bolton pitted three such fighters together – Clearaudio's Concerto, Ortofon's Jubilee and Transfiguration's Phoenix. Seconds out...



If ever we needed proof that hi-fi was an esoteric hobby, it is the wide availability of high end moving coil cartridges. Most human beings regard spending a few hundred pounds on hi-fi to be excessive in itself, let alone five times that for (seemingly) one small part of it. But such are the levels of analogue addiction in the UK hi-fi market at least, that there's plenty of demand for such things.

At this level, you should expect superb design, build and manufacture. Given that there are excellent moving coils around for £500, there's really no excuse for anything less. And so it was with this little threesome – they're all highly desirable examples of the breed. But with differing philosophies (and indeed engineering detail), you're going to get noticeably different sonic characters – so we thought it was time listen carefully...

Let's kick off with Clearaudio's Concerto, the most expensive of the three here at £1,400 and also the

scariest to handle. This was because of the exposed solid boron cantilever, tipped with the Clearaudio designed Micro-HD shape stylus jutting out of the front. Inside it was connected to two gold coils that generate the signal by moving within the magnetic field generated by the surrounding eight magnets. The body is made of satine wood, and the rather unusual 'crown of fingers' is described in the instructions as a "resonance optimised shape".

The £1,300 Ortofon MC Jubilee was introduced to celebrate Ortofon's 80th Anniversary back in 1998, and was the original user of the body shape now familiar from both the Kontrapunkt range and the recently reviewed MC Windfeld. Until the latter's arrival, the MC Jubilee topped the range, but has had to pass that title on. The body is made from stainless steel and aluminium, with the characteristic side panels extending slightly forward to provide a shroud around the boron cantilever, with

its Nude Shibata stylus. Optimum tracking force is specified as 2.3 grams, half a gram less than the Clearaudio.

Falling neatly between the last two price points is the £1,350 Transfiguration Phoenix, from Immutable Music Inc. of Japan. This unit was first introduced approximately two years ago, but has been quietly modified by replacing the internal silver wire with a purer and thicker version (now 5N). This has had the effect of lowering the internal impedance from 7 to 4 Ohms which, it's claimed, improves transparency. Both front and rear double ring magnets are now Neodymium (previously the front one was Samarium Cobalt). There is a proprietary Ogura PA stylus tip attached to a boron cantilever, suspended in a fairly hidden position under the "resonance controlled aluminium body". A vertical line is indented into the front of the body to aid cueing.



ROUND ONE

Getting the needle into the correct position over a record presented no problems with the Clearaudio, courtesy of the aforementioned prominent cantilever, which also made alignment very easy. The first record on was Hardwire's 1999 breakbeat influenced album 'Fused'. This album has deep, seismic bass accompanying a mixture of real instruments, synthetic ones and samples, over seventeen tracks. The Concerto revelled in it, producing a precise sound with a very open midrange which made exploring the different sounds used to create the music an easy task. The rhythm was carried with a good deal of bottom end punch that stopped and started very precisely producing the effect of a tight, deep but well controlled bass.

Moving back in time a little, to Nancy Sinatra's mid sixties LP 'Boots', the opening track was a cover of Marianne Faithful's 'As Tears Go By'. It starts with a bowed double bass acting as counterpoint to Nancy's first lines, before settling into a slow Latin rhythm which suits both the song and this performance of it. Although it bears a few surface marks, and has obviously been played a fair bit over the forty plus years of its existence, the groove walls seem to be reasonably unscathed. Certainly the Concerto made little fuss over surface noise, even when playing this mono LP in stereo mode through the GSP Audio Revelation phono stage and accompanying Elevator EXP (MC step up device). I was aware of it but it wasn't intrusive.

Clearaudio recommend impedance loading of 47kOhms for valve and some solid-state phono stages. The Elevator EXP has the option of seven different impedance settings ranging from

23 Ohms to 47kOhms. After a bit of experimentation I settled on the 1kOhm setting as providing the best balance of air without overemphasising the top end. This was confirmed when playing Muggsy Spanier's Ragtime Band's 1939 recording of 'I Wish I Could Shimmy Like My Sister Kate' on a 1976 RCA Victor reissue. By virtue of its age the recording was taken from an original 78rpm recording and has a somewhat limited bandwidth compared to more recent material. I was left aware of the very muted surface noise of the original shellac disc in the background, but the focus was on the music, and again on the rhythm driving it along.

Changing musical gear entirely, I dug out a much loved copy of Van Cliburn, along with Eugene Ormandy conducting the Philadelphia Orchestra performing Greig's 'Piano Concerto in A Minor'. This performance was recorded live at the open air amphitheatre at Saratoga Performing Arts Centre. Here I felt that some of the background and audience noise that accompanies this performance was a little more muted than I have heard it using other cartridges. This is the sort of micro information that helps build the sonic picture of the recording event in the mind's eye.

ROUND TWO

Staying with the Greig, but changing cartridges to the Ortofon Jubilee, and the presentation was obviously different. I felt that there was more air and space available at the frequency extremes, leaving more of a sensation of the outdoor location. Imaging was excellent with instruments precisely placed on a deep yet very wide soundstage. This seemed to extend a couple of feet beyond the speakers to either side, giving a pleasantly full and expansive listening experience. Surface noise was well subdued (I have always marked the Kontrapunkt a and b well in this area) but there was enough high end detail that I was aware of the odd bird flying past the stage. These ambient sounds were there with the Clearaudio, but seemed to be buried a bit deeper in the mix.

Ortofon recommend an impedance loading of greater than 10 Ohms. I finally settled on a setting of 840 Ohms, which my ears told me appeared to give the flattest frequency response when attached to either the

Clearaudio Satisfy Carbon tonearm (gimbal bearing), or the Hadcock 242 Cryo unipivot arm. (Both of these were attached to my Clearaudio Master Solution turntable, exploiting its ability to accommodate up to three arms, each being independently mounted on the extended legs of the chassis).

Its exemplary tracking ability was demonstrated when playing the Muggsy Spanier record. Any surface noise due to wear on this particular record seemed to be ignored, but the background recorded surface noise transferred from the original 78 had a little more prominence than with the Concerto, which was a little less explicit in this area. The Jubilee carried the foot-tapping beat of the piece with vigour, but did not



try to hurry it along, or force the pace. 'Even-handed' is the phrase that springs to mind when describing the sound of this cartridge.

The Nancy Sinatra recording was replayed in just such a way. I was aware of the fact that this was not a new record, but little fuss was made about its condition, rather the focus was on Nancy's voice and the instruments slinking their way through the slow Latin beat. Being a mono recording obviously the sound was focused in the centre of the soundstage, but had a great deal of depth so that there was no sensation of crowding of the performers, a





problem which can afflict lesser transducers when taken out of the stereo environment.

Returning to the electronic noises and super deep bass of Hardwired, I felt that there was a little fullness at the lower frequencies. Not enough to be offensive, but the ample power reserves of the Leema Acoustics Tucana amplifier and the twin subwoofers mounted in each cabinet of the Chario Ursa Major speakers needed little help in delivering their message, and here I felt that the Clearaudio gave a more realistic rendition of the deep bass activity.

ROUND THREE

Last but not least in to the fray was the Transfiguration Phoenix. This had a very low output, so necessitated increasing the amplifier volume by a noticeable margin over that required for the Jubilee. A very quiet MC stage would be required for this unit otherwise the listener may notice rather more background hiss than with the other two cartridges on test here. The Concerto, by contrast, had a very high output, possibly making it a little overpowering for some highly sensitive phonostages, but ensuring a very good signal to noise ratio.

The presentation of the Hardwire album seemed better lit in the higher frequencies, making for a very engaging listen. The detailing was such that I became aware of previously unobtrusive joins between samples. Bass output was not quite as prodigious as the Jubilee, being closer to that of the Concerto, however, where the latter was courteous in its treatment of the upper mid and top end, the Phoenix seemed to revel in exploring high frequency detail. Perhaps because of this, the imaging was obvious and precisely positioned with the widest soundstage of the three, although none were shy in this area anyway. Stage depth was somewhere between that of the Jubilee and the Concerto, far enough back to create a sense of space but not so big that everything seemed to

come from the back of a cavern.

'As Tears Go By' proved less smoothly played. I was a little more conscious of the age and condition of the record, but most of this took the form of near ambient information. A casual listener would be aware of the fact that this was not a new record, but this would merely be a passing thought when the needle hit the first grooves, rather than a constant preoccupation, because the Phoenix seemed to track very well. Whether this could be regarded as a greater level of honesty in the high frequencies, or whether it could be claimed that there was just a little too much information being dispersed, would come down to a matter of personal taste and the overall condition and cleanliness of your record collection.

However, this 'honesty' did not interfere with the important task of enjoying the music, it just provided a different vantage point from which to enjoy it. I noticed smaller noises, such as the shakers gently 'shooshing' away completing the cycle of beats started by the bass, the vocal inflections of the singer were clearer, and there was possibly a sense of a little more definable space between the performers. The mono image itself was of similar size to the others, occupying about two thirds of the perceived stage area between the speakers, uncramped, but not overblown.

As I suspected, this openness at the higher frequencies showed up the limitations of pre-war recording when 'Sister Kate' 'shimmied' out of the speakers. It was still highly enjoyable, but it was a little more apparent than with the other cartridges that this had been remastered from an aged disc. Do understand that outside of this test environment, I probably wouldn't give this a second thought, but at least it told me what was going on in the recording. Such fine detail came into its own when playing the Greig. The outdoor location was obvious and the separation of the different strands of sound from a full orchestra was a delight.

THE DECISION

So, assuming that the £100 difference in price between the cheapest and most expensive cartridge here would not be a problem, where would I suggest spending your money? If you have a record collection that's in less than perfect condition and you find surface noise intrusive then either the

Clearaudio or the Ortofon cartridges would be the obvious choice. Both tend to regard surface noise as an irrelevance. The decision could be influenced by the bass response of your system - if it's on the generous side then I would look towards the Clearaudio to balance it up, if the converse is true then the slight bottom end richness of the Ortofon may be just what was needed to provide a more substantial foundation for the other frequencies to rise up from. The Clearaudio midrange was a little more obvious than that of the Ortofon, again providing a level of insight which some will prefer.

For those who want to be aware of everything in the groove, including a forgiving but conscientious description of any failings, then the Phoenix would be the best buy. I enjoyed its openness, without feeling that it was being over-analytical. My record collection varies in condition from records that have been bought new and looked after to some that can best be described as 'cream crackered'. The Phoenix will casually mention this fact in the course of playing but the focus remains, at all times, on the music, and musicality is something it has by the bucket load.

As do the Concerto and the Jubilee. All three focus on their *raison d'être* which is replaying music in a very accomplished manner. The final decision comes down to the minutiae of how you like that music to be delivered. For open-book analysis buy the Transfiguration. If you want imperturbable good manners then look at the Ortofon, and if you prefer easy flowing smoothness then try the Clearaudio. All three do an excellent job, and as is so often the case when dealing with mid to high-end equipment, the final choice comes down to the subtleties of presentation and the synergy created with your own system.



MEASURED PERFORMANCE

The Clearaudio Concerto has a strong and prominent rise in output towards 10kHz which then drops rapidly off to finish around 3dB down from the 1kHz reference level at 20kHz. This will add presence to the sound but is likely to rob top end crispness and may well add in a hardness to the upper frequency ranges. Clearaudio recommend loading of over 400 Ohms up to 47kOhms but checking the response at several points over this range made very little difference to the result. Inner groove losses were minimal, thanks to the stylus profile, so the Concerto's performance will at least be consistent right across the record.

Tracking ability of the Concerto was fine at 300Hz, the cartridge only baulking slightly at the most difficult test track, but was less secure in the midband, managing only around 18cm/sec.

Vertical tracking angle was high at over 30 degrees, resulting in a higher than normal value for vertical distortion of 5.6%. Lateral distortion, however, was low, measuring 0.55%.

The Clearaudio's output level of 0.56mV was fine, meaning the Concerto will be compatible with a wide range of phono stages. Overall it should sound detailed but may well lack the top end incision and crispness of better designs. AS

The Ortofon MC Jubilee has a fine, flat frequency response across the audio bandwidth, with just slight lifts at both ends of the spectrum. This will give an even tonality, with a nice level of extra detail thanks to the 2.5dB top end lift, but without any of the associated problems that can arise from more extreme rises. Inner groove losses are very good, with the frequency response here staying flat to 20kHz, so the MC Jubilee will turn in a good performance across a record.

Tracking ability of the Ortofon was excellent; it sailed through the 300Hz tracks and only offered the slightest unevenness on the hardest 1kHz track. Vertical tracking angle was spot on at 22 degrees, meaning that vertical distortion was very low, at 2%. Lateral distortion was a little higher than some, at 0.9%, but this is still a fine result.

Channel separation was excellent, at 35dB, and consistent across both channels. Usually one is higher than the other due to slight generator misalignment, but the MC Jubilee was spot on, showing it has been carefully assembled. This will bode well for stereo imagery. Output level is on the lowish side, at 0.43mV, so a quiet MC stage will be needed for optimum results.

Overall, the MC Jubilee turns in a very fine performance. It should offer an even, detailed and clean sound. AS

Most notable about the Transfiguration Phoenix is its huge rise in output towards 20kHz, peaking at around 8.5dB above the 1kHz reference level. This will be noticeable, adding detail and incision to the treble, but may add some hissiness and spittiness to poorer recordings. Fortunately, the Phoenix's tracking abilities are very good; it completed the 300Hz tests without any difficulty and only became a little unsettled on the most challenging 1kHz track, which is a good result. Poor tracking can exacerbate a rise in high frequency output to give an uncomfortable result, so the Phoenix is well balanced in this respect. Inner groove losses were also not too high, which will offer consistent performance across an LP side.

As is relatively common these days, vertical tracking angle was rather high at over 30degrees, meaning that vertical distortion levels were higher than some competitors, such as the Ortofon, measuring 5.6%. The lateral figure, however, was fine at 0.65%.

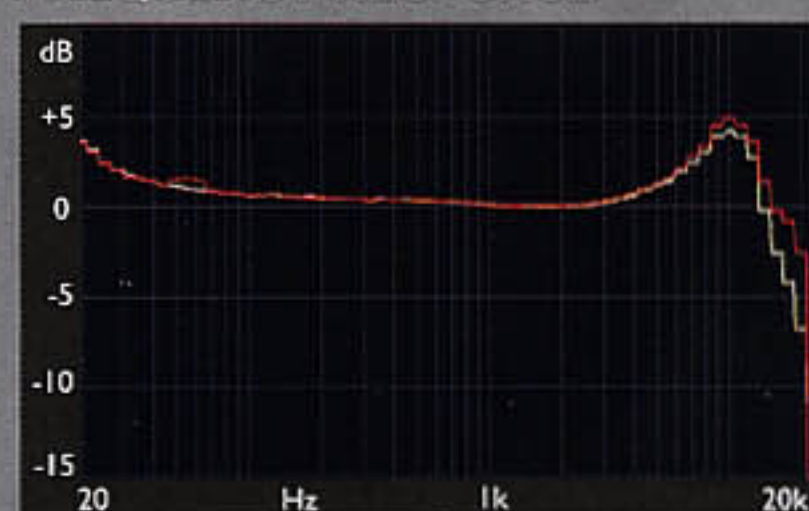
Output from the Phoenix was on the low side, measuring 0.27mV, meaning a high gain MC stage with low noise will be required for best results. That done, the Transfiguration should offer a brightly lit and detailed performance which may not flatter poor recordings. AS

Tracking force	2.8gms
Weight	4.4gms
Vertical tracking angle	>30degrees
Frequency response	20Hz - 8kHz
Channel separation	22.5dB
Tracking ability (300Hz)	
lateral	65µm
vertical	45µm
lateral (1kHz)	18cms/sec.
Distortion (45µm)	
lateral	0.55%
vertical	5.6%
Output (5cms/sec rms)	0.56mV

Tracking force	2gms - 2.5gms
Weight	10.5gms
Vertical tracking angle	22degrees
Frequency response	20Hz - 20kHz
Channel separation	35dB
Tracking ability (300Hz)	
lateral	90µm
vertical	45µm
lateral (1kHz)	24cms/sec.
Distortion (45µm)	
lateral	0.9%
vertical	2%
Output (5cms/sec rms)	0.43mV

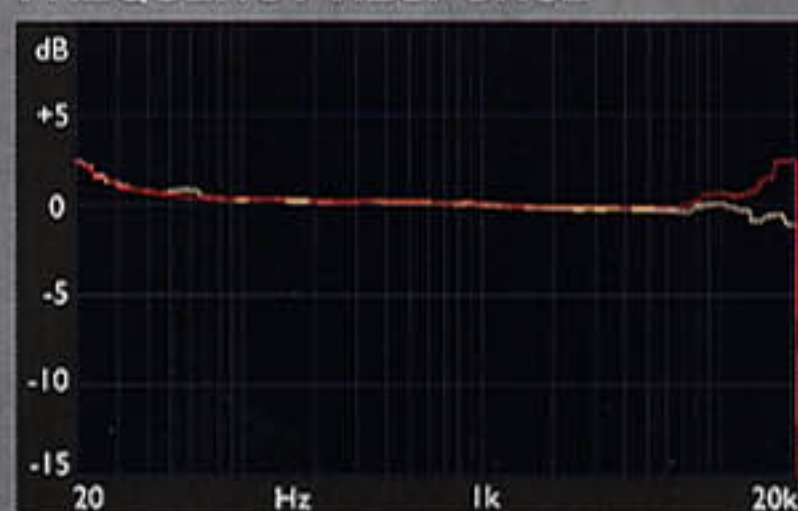
Tracking force	1.7gms - 2.2gms
Weight	7.8gms
Vertical tracking angle	>30degrees
Frequency response	20Hz - 12kHz
Channel separation	22.5dB
Tracking ability (300Hz)	
lateral	90µm
vertical	45µm
lateral (1kHz)	22cms/sec.
Distortion (45µm)	
lateral	0.65%
vertical	5.6%
Output (5cms/sec rms)	0.27mV

FREQUENCY RESPONSE



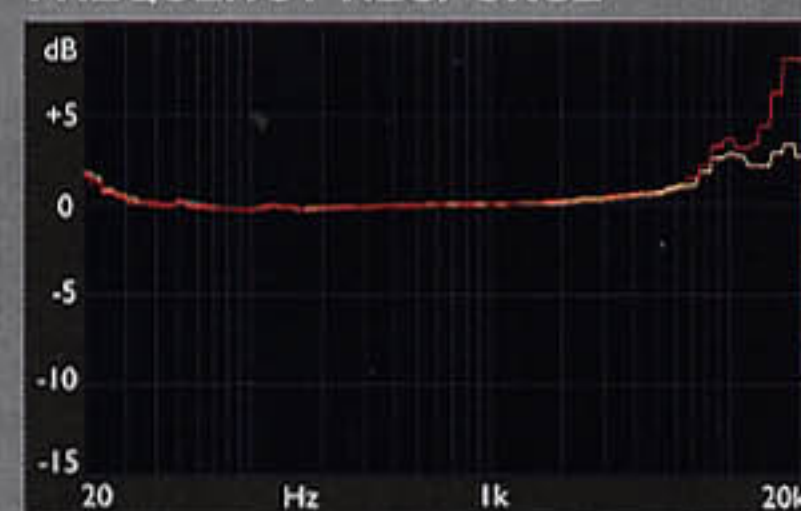
Red - Outer grooves
White - Inner grooves

FREQUENCY RESPONSE



Red - Outer grooves
White - Inner grooves

FREQUENCY RESPONSE



Red - Outer grooves
White - Inner grooves

VERDICT ●●●●●

Smooth, rhythmic and precise nature with a solid low end makes for an engaging listen.

CLEARAUDIO

CONCERTO £1,400

Audio Reference

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VERDICT ●●●●●

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ORTOFON

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VERDICT ●●●●●

Engaging and explicit device, best suited to smooth systems. Low output restricts choice of phono stage.

TRANSFIGURATION

PHOENIX £1,350

Audio Reference

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