

# The complexities of simplification Touraj Moghaddam

THE VERTERE FOUNDER, CEO AND DESIGNER TALKS CARTRIDGES ON CRANES, LISTENING TO MASTER CUTS AND THE SOURCE OF A RECORD PLAYER'S ENERGY

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When we meet at Vertere's north-west London HQ – somewhere around here is the real *Apprentice* boardroom (in a TV studio) and the café to which Lord Sugar banishes the losing team on his 'reality' show – Touraj Moghaddam is putting the finishing touches to the company's newest, and most affordable, turntable to date. Or 'record player', as I'm corrected: that's the whole vinyl replay unit, of which the turntable is very much a part.

The *DG-1*, the initials standing for Dynamic Groove, is set to sell for £2750 complete with *DF-1* interconnect and separate grounding wire, and is very much a record player: it's as near as a Vertere product gets to a 'plug and play' model, coming ready assembled and requiring only minimal set-up. Unlike the company's other turntables, which are distinctly, this one comes with an arm pre-fitted and even a conventional clear acrylic dustcover. When I visited Vertere final listening was underway to decide which cartridge would come pre-installed.

The pressure was on a bit, as there were a few weeks before the annual High End Show in Munich, where the *DG-1* will make its début, and there's the package to be finalised, the photography to be done, and the brochure to be done. Eventually it was decided that an Audio-Technica *AT-VM520* moving magnet would be available, installed and pre-aligned. This £110 cartridge adds £100 to the bill, making a £2850 *DG-1* 'Plug and Play' package.

But despite this, Moghaddam seemed pretty much unflappable: he offered coffee and cake – 'Every time I go to that deli they give me cake, and pasta – lots of pasta!', and then we sat down, after a little amusement at my use of two recorders – a *Tascam DR-07MkII* and my trusty *iPhone* voice recorder as backup – to talk about the art of designing a turntable (oops, record player). After all, the *DG-1* is designed to bridge the gap between the company's high-end models for those with a deep-seated enthusiasm for LPs, and the new generation with their collections of 'vinyls'.

From the outset, it's clear that Vertere is very much engineering driven: whether in its record players or its substantial range of cables, there's no sense of the dark arts at play, but rather – well, let Touraj explain...

'One of our substantial advantages is that we work closely with mastering engineer Miles Showell at Abbey Road, and so we have gained great insights into how records are mastered and cut, and can go back to listen to acetates and white labels, and even the original source these were cut from. It's very valid to be able to say "Yes, this turntable brings you closest to the master tape" – that definitely helps in verifying where you stand.

I mean, that's especially true when you're working with cartridges and loudspeakers – speakers are the least correct components of any hi-fi. You know, you can get an amplifier with a flat response, but once you get into loudspeakers and transducers – basically, they have a lot of characteristics!

## Back to the master

That happens whenever you're converting from one state to another: mechanical to electrical in a cartridge, or vice versa in a speaker. And it's a problem, too, in mastering: different engineers have their own preferences for amplifiers and speakers, but what you're looking for is when you cut a master and play it back through the same desk, amp and speakers, you're asking yourself whether you're hearing the same thing, or whether there are any losses in terms of the things that we want like musicality.'

He explains that knowing how a record is cut can also help his design process: 'Mastering engineers know if they've got a dynamic range that suddenly goes up they can drop the cutting head by few microns and then bring it back up – there are all sorts of gizmos that they do in order to cut that groove, so when you know that then you're thinking "Okay, maybe I need a slightly different geometry for picking this up later" and so on – so it definitely helps.

"Then you come back and you think "Well, I can do this a little bit better now that I know what it is, it's not too dissimilar." I mean, imagine you had a car and were going on to a circuit to race, rather find yourself flying off at the corners: you could look at the track and decide on a set-up. But if you actually talked to the guy who designed the circuit and he told you all about where there's a dip, where there's a camber