

# Graham Phantom II Pickup Arm (TAS 196–HP’s Workshop)

REVIEW by Harry Pearson Oct 26th, 2009

<https://www.theabsolutesound.com/articles/graham-phantom-ii-pickup-arm-tas-196-hps-workshop>



The forward momentum in high-end design, even during these troublesome times, continues to produce some breathtaking surprises. Nowhere is this more evident than in improving the reproduction of sound from the venerable long-playing record.

It wasn't that long ago that Clearaudio released its "statement" in turntable design, a product that seemed to have just about everything, from magnetic drive and bearings—and a heavy pendulum to isolate it from *any* outside interference, short of an earthquake—to linings made from the same wood used for bulletproof cars (in this case, to damp resonances). It allowed us to hear a quality of reproduction from the LP, particularly in the bottom octave, we had only suspected was inherently there.

Joining its company were the My Sonic Labs Hyper Eminent moving-coil cartridge and the remarkable Zanden 1200 tubed phonostage. The Zanden offered the fascinating option of two different equalization curves for recordings not adhering to the American-originated RIAA curve. (Both of these products are about to be updated, the Zanden with more EQ alternatives

and the Sonic Labs in a new, reportedly improved version—I say “reportedly” because I haven’t heard it yet.)

Now to this august confederation of excellences comes the dramatically improved pivoted pickup arm from Bob Graham—the Phantom II arm.

The Clearaudio Statement came with a Goldfinger moving-coil cartridge, mounted in an updated version of Clearaudio’s straight-line tracking arm. The Clearaudio’s American importer left an additional Goldfinger for me to use in testing other pickup arms, which I did, with VPI’s Classic turntable and JMW 10.5 inch arm. There were audible differences between the two arms themselves, but the cartridge’s sonic character remained essentially the same. But when I used the My Sonic Labs Hyper Eminent with the VPI setup, it represented a breakthrough in the retrieval of midrange information, unique in my experience. The reproduction of the human voice was a revelation, with words once obscured now clearly articulated, and this without any hyping of the upper-midrange frequencies. The Hyper Eminent just extracted more of what was in the grooves and hitherto obscured in playback. This was something Goldfinger did not do in either the Clearaudio or the VPI pickup.

Now enter Bob Graham. He wanted us to use his new Phantom on the Clearaudio table, where there were provisions for mounting two additional arms. It took some doing to set up, but once the arm was mounted on the table, we, logically enough, decided to mount the other Goldfinger in its headshell and run direct comparisons between the Graham/Goldfinger and the Clearaudio/Goldfinger pickup playback system. This was easily enough done once both cartridges had “warmed up,” playing an LP side: the Clearaudio cartridges must be played for about 15 to 20 minutes until they “break” in and lose a high-frequency edge and brittleness.

The performance of the Goldfinger in the Phantom II was something more than a mild surprise. It was now, instead of being a very good moving-coil design, at the state-of-the-art, its potential fully realized. This was, in part, because it possessed much of that same midrange resolution that had so bewitched, bothered, and bewildered me with the My Sonic Labs (which I had not had a chance to mount in the Clearaudio arm). But it wasn’t only that the Goldfinger was now a match in vocal resolution for the Sonic Labs. No, indeed. The Phantom itself was audibly tracking the recorded frequencies top to bottom with the kind of fidelity I hadn’t heard before from any moving-coil in any pickup arm, pivoted or straight-line. My impression was that it now was equally excellent in extracting hidden information at any frequency.

By comparison, and this is an observational not a *measured* opinion, other cartridges seemingly track especially well at some frequencies, but not quite at all of the audible ones. There is a kind of *lightness* of texture (rather than any obvious distortion) at some points in the wide range of fundamentals and overtones that, I believe, we have taken for granted in disc playback. I am not sure how easily you’ll hear this on something less than a speaker of considerable resolution. But as I hear it here, the Phantom allows the Goldfinger to adhere to the deepest and tiniest groove etchings with more persistence. And so, overtones and words, particularly those buried in orchestral or heavily electronic/pop material, are distinctive and distinguishable, without any boosted pre-emphasis. And it wasn’t just vocalists and overtones so rendered; the entire range of midbass fundamentals gained an octave-to-octave smoothness, a consistency that brings us closer to the absolute.

This naturally did not show off the Clearaudio's straight-line tracking arm (that comes with the Statement table), which is much lighter and less well-designed, to best advantage. But it did have other benefits, aside from showing much of the reference system itself in a new light. As one example, the distinctions between the Zanden's different EQ settings now became much more apparent, with less ambiguity over which setting was the most nearly "right." Even the curves themselves sounded more individualized than they had before. And the Zanden itself much more dimensional in its retrieval of the soundfield.

I am putting the trees before the forest in a way here. Overall, there was a lack of coloration, a lack of an easily described or identifiable character with the Goldfinger in the Phantom, and I suspect that it is the arm that is mostly responsible for this kind of naturalness and ease. While it will take much more listening, and with other cartridges, to precisely ascertain the arm's character, I can say with certainty that the arm has none of the etched character of earlier Graham designs. Indeed, here it sounds almost warm and romantic. (To make sure of that, I now have on hand additional arm wands for the Graham, and other super cartridges I am about to begin testing, including the new Ortofon, the Air Tight, the Sonic Labs Ultra, the ZYX, and a few more. I will continue to use the VPI Classic playback system as the control, as a method of seeing how much each cartridge's basic sound changes with the Phantom II.)

Ah, but that is not all. The soundspace recreation is much more lifelike, in a way that is easy to hear but not necessarily so easy to describe. Until now, even the best soundspace delineation we've achieved (in several different systems) has always had perturbations, which you might think of as wave disturbances. There is compression of the ambience surrounding the field in terms of the front-to-back depth, or in terms of an ability to recreate the outside edges of that field, or the outside edges at the back of the field. Sometimes there is too much depth, a seductive but not believable excess layering of the depth between or beside the musicians on the stage.

In a perfect copy of the soundspace (where there is a natural one being recorded), the soundfield—its ambience—has to be continuous, that is, not unlike an scalloped membrane. That does not mean that all the instruments on the stage have to "break" their silence in the same way; each will aggravate the air around its space (and positioning) in its own individual fashion. Getting the soundfield right thus means allowing the individual placement, tonality, and dimensional "weight" of the instruments to speak for themselves.

Things to pay heed to in assessing the continuousness of the soundspace are the woodwind voicings, the upper partials of the massed strings in forte passages, and the microdynamic nuances of the brass—all things that mark a continuous space.

With the Phantom, the entire soundfield seems to float slightly behind and beyond the speakers as a self-contained continuity. The effect is sometimes spooky, because it's so "real," a thing the ear lets you know even if you aren't thinking about it. Part of this effect may simply be the result of the ability of this arm to extract subtleties in the upper midband octaves, the region where the ambient information lies. It creates an airy openness that may just enhance this floating-field effect.

The Goldfinger/Phantom's ability to capture the attack and decay of transients has much to do with its overall realism. The funny thing is that in this respect it is so good, that is to say, so natural (like the floating soundspace) that you simply accept it, only realizing, in the reviewer "mode," that decays are sustained in the way they happen in a real acoustic space, like a

concert hall. You might want to try out the celesta in the second movement of Prokofiev's *Lt. Kije* [Reiner, Chicago, RCA], which just seems to *be* there.

## In The Groove

There is, to be sure, much more to say about the arm.

One small, but unusually satisfying thing is the way the arm descends onto the grooves on a record, once the cuing lever is released. The arm stays so steady that it lands precisely and exactly where you want it to. This is a first in my experience. Other arms tend to wander a bit as they descend to the grooves (in my case, to the band between the grooves). There's no uncertainty here about this.

There is an explanation.

The Phantom's sonic excellence lies in the refinement of the details and in an innovation or two, not all of which I am going to cover in this evaluation, lest I get lost in a sea of arcanities. At the outset I should say that it is about nine-and-a-half inches fashioned out of titanium, and electro-coated. (Graham thinks a 12-inch arm adds too much effective mass. He explains: "Effective mass is not the same thing as plain-ass mass, since effective mass is defined as the weight of a thing times the distance from the pivot squared...So although long arm tubes may be made of lightweight materials, it's the extra length that gets 'em. And, unavoidably, the cartridge weight—a constant—is farther away from the pivot.") The Phantom II is damped, and in more than one way. The wand itself is detachable, making cartridge testing a snap (if you have the extra wands). And the internal wiring (too complex to explain the niceties of here) shows Graham's attention to even the smallest things about the arm. There is a degree of craftsmanship in this version of the Phantom that reminds me of that involved in the design of great sports cars.

On the arm's pivot, there is attached a quite small leveling bubble, which, when the needle is centered in the groove, will let you know if the cartridge's vertical tracking angle (VTA) is correct, or nearly so. There is, of course, a mechanism beside the bubble that allows you to adjust the height of the arm, and thus refine the VTA. (In my case, I found the sound best with the bubble minutely to the right of its central position.) Graham calls this feature his "Micropoise" and says that each of these American-made bubble levels are individually calibrated on each arm for an achieved accuracy of "less than a degree."

Nearby there are two quite small magnets (hard to see) that are part of Bob Graham's unique and patented Magneglide system. These are neodymium and what they do is stabilize the arm as it rests upon its single pivot point and provide a bit of extra damping. (Again, Graham: "Pivoted arms must be stabilized, it is true. But gimbaled arms (SME and the like) do this by means of a double set of bearings they all have.") Without some kind of stabilizing device—be it side or lowered counterweights—a uni-pivoted arm will wobble, thus not maintaining a true alignment in relation to the groove. Graham says that all pivoted arms must find a way to create such stability, and that with uni-pivot designs usually means the arm will have to have the center of gravity of the mass below the pivot point. This gives you lateral stability but at the cost of neutral balance in the vertical plane. In his case, he says, the tiny magnets, so small, powerful, and close together, provide the optimum solution to the problem of stability, so the arm remains upright and does not wobble or fall over. The Magneglide system, according to Graham, provides "lateral stability, azimuth adjustability, the aforementioned

extra damping, and true vertical pivoting of the stylus point—with no rotation as the arm is raised.”

## Conclusion

I am not sure of how to end this essay on the Phantom II, since in a way, it is of such excellence that it gave me deeper insights into the strengths of the Goldfinger cartridge, the Zanden phonostage, the Scaena speakers, and the character of the McIntosh tubed electronics, the 2300 preamplifier and 2301 amplifier as well (to be discussed here next time out). It is obvious to me that I wasn't getting this level of performance before the Phantom II arrived, just as it is obvious to me that the arm is a masterpiece of craftsmanship and design savvy.

---

## The Music

*These are some of the recordings I used in the testing of the Phantom II pickup system. I have listed individual cuts if those were the only ones I used.*

- Malcolm Arnold: *English Dances*. Malcolm Arnold. London Philharmonic. Lyrita
- *Casino Royale* (particularly “The Look of Love”). Colgem.
- Art Garfunkel: *Breakaway* (particularly “My Little Town” and “I Only Have Eyes for You”). Columbia, Japanese Import.
- *Sounds Unheard Of* (particularly “My Funny Valentine”). Analogue Productions Revival Series.
- Respighi: *Roman Festivals*. Maazel. Cleveland. British Decca.
- *America* (particularly “Sandman”). Warner.
- David Crosby: *If I Could Only Remember My Name* (particularly “Laughing”). Atlantic/Classic Records 45 recut.
- Bartok: *Hungarian Sketches*. Reiner, Chicago. RCA.
- *Phil Collins* (particularly “In the Air”). WEA 45 Netherlands import.
- Bernard Herrmann: *The Three Worlds of Gulliver*. Herrmann, National Philharmonic. British Decca/Phase Four.
- Strauss: *Also Sprach Zarathustra*. Mehta. LA Philharmonic. British Decca.
- Cat Stevens: *Tea for the Tillerman* (particularly “Hard Headed Woman” and “Wild World”). *Teaser and the Firecat* (particularly “Peace Train”). Island Imports.
- Saint-Saëns: *Symphony No. 3 (Organ)*. Fremaux. City of Birmingham. EMI.

---

## The System

The basic system, in addition to the components mentioned in the main part of the review, consisted of the Scaena V. 14.2 speaker system, Nordost Odin interconnects and speaker cables (with the exception of the Graham-supplied IC-70 cable between the pickup arm and the Zanden 1200 phonostage), McIntosh 2300 preamplifier and 2301 basic monoblock amplifiers, and the Audience aR-12T power conditioner. At the tail end of the listening sessions, I substituted in the new conrad-johnson phonostage, the TEA 1, this in an effort to hear exactly what the Zanden was bringing to play in the system.