

Magnepan 3.7

Further Thoughts

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I know it's a stretch, but for the sake of argument let's say that you don't have six dimes to drop on a pair of the highest-fidelity, lowest-coloration, fullest-range loudspeakers I've heard in my home—the \$60k Magico Q5s (also reviewed in this issue). What to do? Well, there is always the \$40k TAD CR-1s or the \$30k Morel Fat Ladies or the \$22k MartinLogan CLXes, among many many other worthies. But—stretch with me, again—and let's say you don't have that kind of green, either. Let's say you're...well, me. You lust for ultra-high-fidelity sound, but don't have the coin for the Big Boys. What then are your options?

Ladies and gents, allow me to introduce you to the speaker I would choose: the \$5495 Magneplanar 3.7 ribbon/quasi-ribbon dipole.

You have already read about this wonderful new transducer from Magnepan in HP's Workshop in Issues 212 and 213 (and he comments further below), so consider this a Second Thoughts that isn't going to be very much different than HP's first ones.

The Maggie 3.7s are remarkable for all sorts of reasons, but the most obvious and impressive is the way Magnepan has addressed three traditional Maggie weaknesses: 1) integration of the ribbon driver in a "true ribbon" planar; 2) reduction of "Maggie grain"; and 3) the resolution of low-level detail at low volume levels.

On the first issue, you may recall from my 1.7 review that I've shied away from Maggie's "true ribbons" not because I don't like Maggie's ribbons but because I like them too much. They are so good—so much faster, lower in distortion, and higher in fidelity than Maggie's planar-magnetic drivers—that they audibly call attention to themselves.

In the earliest versions of true-ribbon Maggies, this attention-grabbing discontinuity was marked. The ribbons weren't just better than the planar-magnetic drivers they were then paired with; they also played louder (or were higher in sensitivity, which is functionally the same thing). Unless you damped the wall behind them (easier said than done without unintended consequences elsewhere in the passband) or padded them down with resistors (ditto) or added a whomping subwoofer (which tended to offset the extra treble energy with added bass energy, albeit at a substantial price in coherence, transparency, resolution, and neutrality), you could invariably hear the true ribbons as a separate element in the presentation. Moreover, because the ear is particularly sensitive to parts of the bandwidth in which the true ribbons play, hearing them didn't just ruin coherence;





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it also added excessive upper midrange and treble brightness to the overall presentation. In short, despite their considerable virtues—and there are few speakers I’ve heard that can make voices, in particular, sound as breathtakingly realistic as Maggies do—the Maggie 3 Series and the Maggie 20 Series speakers failed to negotiate the very first hurdle any loudspeaker faces (at least in my listening room): They failed to disappear. In fact, I was always aware of the ribbon-Maggies’ presence because the discontinuity between the true-ribbon tweeter and the planar-magnetic drivers was always obvious.

As the years passed, Maggie tamed this brightness and discontinuity to an extent, but even the most recent true ribbons (and with Maggie, “recent” has, until the last couple of years, been measured in decades) have had a vestige of this sonic legacy. The 3.7s are the first true-ribbon Magneplans that don’t.

I really don’t know how Maggie has done what it’s done here—and Wendell Diller, who paid me a visit to install the speakers, ain’t saying—but if I were to speculate, I would guess that the ribbon’s output has been damped down somewhat and its distortion (and that of the other drivers playing alongside it) reduced—in part via a re-engineered crossover. I do know that Maggie is using much higher-quality parts in the 3.7 crossover than it has in earlier 3 Series speakers (which is one reason why the 3.7s cost what they cost), and past experience (with Magico and Morel speakers) suggests that when crossovers are successfully re-engineered to eliminate group delay and reduce out-of-passband “break-up” modes, the sonic effects are sizeable and easy to hear. There is this, as well. Earlier 3 Series Maggies used planar-magnetic panels for the midrange and the bass. In the 3.7, Maggie has substituted quasi-ribbon drivers for the planar-magnetic ones (just as it did with the smaller 1.7s introduced last year). These faster quasi-ribbon drivers, optimized via Maggie’s new crossover, may be considerably more phase coherent and lower in distortion than those of the planar-magnetic panels they’ve replaced—and thus better able to keep up with the ribbon.

I’m guessing about this, of course, but there is no doubt that the 3.7’s ribbon tweeter is no longer “there,” no longer an easily audible and obviously separate part of the sonic presentation. The blend is so complete—and so successful—that I would have to say this is the most coherent Magneplanar I’ve yet heard. There is simply no part of the frequency spectrum you can point to and say, “This sounds different than or stands apart from the rest of the frequency spectrum.”

Are the 3.7s more coherent than the very coherent all-quasi-ribbon 1.7s? Yes. And I’ll tell you precisely why. Despite their excellence, the 1.7s still have a bit of “Maggie grain” to their presentation (as I said in my review of the smaller Maggies)—a low-level, higher-frequency sandiness, like the sound of drummer’s brush on a snare, that is mostly audible in quiet passages or silences, but that is actually there all the time, overlaying the soundfield like a very fine scrim. It is only when you hear loudspeakers that don’t have this driver/crossover/enclosure grain, such as the Magico Q5s, that you become aware—acutely, actually—of how much this noise detracts from

a realistic illusion of voices and instruments.

Grain—whether it is being added by drivers, enclosures, crossovers, electronics, sources, or all of the above—tends to make voices and instruments sound the slightly peppery way that half-screened photographs look, as if they are composed of tiny dots of information separated by tiny dots of noise, rather than “whole,” continuous-tone sonic images. In addition to adding a texture to music and backgrounds, this noise also tends to make instruments sound slightly flatter in aspect than they do in life, as if they are (almost literally) being viewed through a screened window rather than in open air.

The 3.7s have greatly reduced this granular noise. I would assume this is a direct result of the more successful blending of all drivers, but in particular of the way the “true ribbon”—with its inherently lower distortion—has been folded into the mix. In my view this is almost as significant an achievement as Maggie’s sensational new blend of true ribbon and quasi-ribbon panels. This is a “noise” I’ve associated with Maggies since I first heard the I-U.s. Here it has been vanquished to the degree that well-recorded voices, like Melody Gardot’s on “Who Will Comfort Me?” from *My One and Only Thrill* [Verve], sound entirely grain-free, three-dimensional, free-standing, and “there” (provided, of course, that you are using electronics capable of reproducing dimensionality and not adding grain of their own).

Whether we consciously acknowledge it or not, “realism” in hi-fi playback systems tends to work on a sliding scale; how “there” a voice or instrument sounds depends on how many of the same qualities we hear in life (when we hear these voices or instruments singing or playing) are being incorporated into the presentation. Like the Magico Q5s, the Maggie 3.7s are working at a very high level on this scale (at least, they are in the midrange and the treble). Given a first-rate source, they are recovering more dynamic/harmonic information and delivering that information with lower distortion than the other speakers in their price range I’ve heard. In the midband and treble, they are moving the bar up on the “realism scale” to the level of some of the world’s greatest (and most expensive) transducers.

However, I do have minor nitpicks about the 3.7s’ bass extension and power-handling. I don’t want to start off by giving the wrong impression. There is nothing discontinuous about the 3.7s’ bass, which blends as seamlessly with the midband and the treble as the treble now blends with everything else. I’m just not sure how deep these speakers are capable of going (at least in my room)—or how much power they are capable of reproducing as they descend in frequency. When I heard the 3.7s at CES, I felt that the bass didn’t have quite the same amazing presence as the midrange and treble; in my listening room I have something of the same impression. For instance, on the truly phenomenal EMI recording of Schnittke’s Second Sonata (“Quasi una sonata”), the 3.7s reproduce Kremer’s violin—and all its dynamics (which on this showy piece range from *pppp* to *ffff* and all stops between)—with very nearly the same speed, resolution, and in-the-room-with-you realism of the \$60k Magico Q5s (the highest-fidelity speakers I’ve yet heard). This is remarkable—in fact,



unparalleled—in a \$5.5k loudspeaker. Ditto for the upper bass, middle, and top octaves of Gavrilov's concert grand. What I'm not getting—is thunderous power in the low bass that I hear via the Q5s on the bottom-octave *sforzandos* of that piano. Nor am I getting quite the same dynamic range on *fortississimos*. (Of course, this is a grossly unfair comparison. One of the Q5s glories—and one of the things that you are paying \$60k for—is its phenomenal bass extension, resolution, power-handling, and overall dynamic range.)

I would guesstimate that in my room, with the gear I'm currently using, the 3.7s are going down to about 45Hz, with "useable response" into the upper thirties. This isn't world-beating deep-bass extension, but when you consider that the \$20k+ MartinLogan CLXes struggle to get below 55Hz, it isn't bad for a single-panel planar. The upside—and it is truly considerable here—is how very clean and clear the 3.7s' bass is where it plays. (For instance, you will hear the thwack of a drummer's sticks and the rebound of the skins of drumheads with a speed, resolution, and realism that most cone speakers can't come close to matching. Indeed, save for the deepest notes of pianos, bass clarinets, contrabassoons, synthesizers, contrabass, Fender bass, and a few others which play down into the bottom octave-and-a-half, you will hear most bass-range instrument reproduced with unusual speed, clarity, and realism.) Nonetheless, these won't be the speakers for deep bass fanatics,

be they organ music enthusiasts or certain kinds of rock 'n' rollers. Of course, there is nothing that says you couldn't slip an outboard woofer or subwoofer into the mix, *if* you're willing to sacrifice some of the 3.7s magical coherence for a few extra Hertz on the bottom. Or, maybe Magnepan should make a true, planar, dipole subwoofer along the lines of the small Maggie Woofer it recently introduced.

As for the dynamic limits at very loud levels, you have to push these speakers hard before they run out of panel excursion, but... you can do it at really loud levels. That's just the way membrane speakers work, I'm afraid. So far and no farther. At least the 3.7s don't sound nasty when they clip. You just get a little softening of the loudest peaks at thunderous volumes. At normal loud levels, you won't hear any compression.

As I said at the start, these are the speakers I'd buy if I couldn't buy the Q5s or other speakers in that price category, because in many ways (certainly from the upper bass through the treble) they come as close to the sound of the Q5s as I have gotten without spending Q5 money. When talking to HP about the 3.7s, I said that I thought they were the best buy in hi-fi at the moment. After a beat, he said, "I think they may be the best buy in hi-fi of all time." Coming from The Great One, that is high praise, indeed. And you know what? I think he's right. It should go without saying that the Magnepan 3.7s get my highest recommendation. **tbs**

HP Comments

There are many admirable things in Dr. Valinosky's commentary on the Maggie's, and I am in complete agreement with his overall findings on the speaker, and nearly so with his major points.

I particularly like his comments on the way in which all previous Magnepan designs veiled substantial parts of the mid and midbass frequencies, and his use of the word "scrim" to describe the effect. This is a point I failed to comment upon and it is the lack of that veiling, and its attendant grain (beautifully analogized by him), that allows the realism and "life" the 3.7s have in such abundance. (I would liken that scrim to one of Salome's veils.) Pay particular attention to his description of "grain" and the analogy he draws with half-screened photography and the appearance of its tiny dots of information. Apt. A useful addition to our working vocabulary. (I've confronted and tried to describe that devil "grain" but never found as good an analogy.) To me, the lack of a box in the Maggie designs and its dipolar radiation patterns (and the overall musicality of all Magneplanars) probably put Salome and her veils in the back of my car.

We differ somewhat on the bass response of the speaker.

I think one of the things that makes the Maggie as good as any speaker I've heard throughout much of its range is its superb octave-to-octave balance. I don't think in their present incarnation, i.e., given the design parameters, the 3.7s could be extended into the deepest bass without

destroying that amazing balance and, thus, much of the sense of "rightness" the speaker has. There are some overtones (harmonics) of the fundamentals below 48 or so Hertz that are audible and provide a layer of support, because they are perceivable further up the scale, and actually strengthen the sense of response in the 40Hz range and above.

I don't know why JV is hearing dynamic limitations at very loud levels. I have run the speakers at well-nigh ear-collapsing levels with the McIntosh 2301 amplifiers going full blast, and I don't hear the 3.7s stressed in the slightest. My acid test for this is the Human League (45rpm LP) dance single of "Don't You Want Me Baby," which has more than a little dynamic impact in the low midbass region; "kick-ass" is how it could be described and with understatement.

That octave-to-octave balance of the 3.7 never leaves me with the sense I'm missing anything and so I could live with these speakers and do so happily, without a Scaen-like reach into the subterranean depths. I can feel the speakers move enough "air" to fool my body into thinking it is hearing more. In other words, I can live without my gut being crunched.

And I am content to wait and see how the folks at Maggie tackle the problem of extending the last ten or fifteen cycles with the authenticity and truth of the range above that point, with that genuinely incredible sense of aliveness.