## HP's WORKSHOP



#### Maggie 3.7 Speaker System

#### **Session One**

Harry Pearson

wo Magneplanar panels, the spanking new and sexylooking 3.7s, arrived just after CES. And just as the FedEx guy was pulling away, who should arrive but Wendell Diller of Magnepan in the flesh—fresh, like the speakers, from the audio doings in Las Vegas.

Within 30 minutes, Diller had not only unpacked the speakers, but had them set up in Music Room Two, where, three decades or so ago, he had first installed the earliest Magneplanars, the Tympani I-Us, then being distributed by Audio Research Corporation (which arrived along with Bill Johnson, a complete set of ARC tubed electronics, and a full playback system, down to a Decca cartridge). The two Magneplanar panels of the day

were divided into three sections six feet high per side, extending in width almost the entire room, itself a shoebox-shaped affair—ideal, as it turned out, for Maggies.

The original Magneplanars were horrifically inefficient and had to be played very loud to achieve a real sense of life, which, in the lower midrange to midbass, they did in a fashion still unduplicated to this very day.

They were also rolled-off in the top octave (not necessarily a disadvantage given the quite "bright" sounds back then), lacking airiness, dynamics, and harmonic extension into the atmosphere(s). They also had to be bi-amplified, and required an external crossover (from ARC, of course, since crossover

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design was not one of the strengths of the Magnepan products for many a year after).

In a day and age when almost no speaker, perhaps outside of the KLH Model Nine panels and original Quad electrostatic, could reproduce the critical harmonics of midbass fundamentals accurately, the 'Tympani's were a revelation because, unlike the electrostats, the I-Us could reproduce the orchestral fundamentals, but also do so with a great deal of power, moving air much in the way air is moved in the concert hall. Thus, they were getting right what no one else could—the basis of music itself. To some, including this reviewer, they were a revelation even if, as revelations usually are, flawed.

Soon enough, all of Jim Winey's planar designs were being sold and distributed under the Magnepan aegis. He set to work on refining the system, usually by lowering the mass of the moving parts of the system, a mass that had been quite high in the original Tympani, thus the lack of efficiency and slowness of response higher up in frequency. He devised a true ribbon for the upper frequencies, one widely admired (and illegally copied) with a "sparkle" and "airiness" new to his speakers, one whose inherent colorations (that "sparkle") he in time tamed. (It is a little known fact that Winey's first design, the one shown to ARC's Johnson, was entirely a quasi-ribbon design, one that originally intrigued Johnson, but didn't quite work out as a viable product.)

Heard in light of the succeeding models of Magnepans (or Maggies), the \$5500 3.7 is a hybrid fertilization of Winey's trueribbon design and the company's more recent ventures into quasi-ribbon technology (as in the Model 1.7s), and it sounds unlike any of its ancestors. It is the culmination of Winey's art. The technological ins and outs are things the company is trying to keep as secret as Iran its atomic research programs. (See the sidebar.) Maybe they fear being reverse-engineered.

In saying it doesn't sound like its ancestors, I mean to suggest, before going into detail, that the 3.7s do not sound at all discontinuous as they have in the past, but rather as if cut from a whole cloth. Before this (and perhaps the same with the 1.7, which I haven't heard), the perceptive listener could hear the differences between the ribbon tweeter, the midrange, and the separate bass planar elements, and these differences were audible not only as difference in rise time, but also as a kind of characteristic texture. As Winey's speaker designs evolved, there was greater continuity within the system, but still, one could pretty much guess where the crossover points were. No longer. With the 3.7 continuousness is so flawless that the speaker sounds as if there are no crossover points. And so, the first thing we heard this day was a unified field of sound.

And so for a moment, a bit of geography. The latest version of the ribbon is in its own panel, placed either on the outer (or inner) edge of the speaker, depending on how you choose to orient the speaker, with the separately mounted midrange and low-frequency quasi-ribbon strips comprising the guts of the system. Or, in Diller's wording: "The midrange is a narrow, vertical, quasi-ribbon line-source, next to the true ribbon. The quasi-ribbon bass driver is adjacent to the midrange and runs the full length of the speaker; it is so wide that 'strip' doesn't seem like the best word."

A few factoids: The speaker's impedance is 4 ohms. Its load is essentially a resistive one; therefore, driving it doesn't pose the loading problems of electrostatics or many, many multi-driver designs. The 3.7 can handle massive amounts of power, in our case a 300-watt monoblock, the McIntosh 2301, and at CES, the 1000-watt monoblocks Magnepan used, the Bryston 28B SST<sup>2</sup> [reviewed by me several issues ago]. The speakers together weigh 128 pounds (as shipped) and a single unit measures 24" wide, 71" high, and 1.625" deep.

About the setup here: The startlingly good VPI Classic 3 (we call it "neo-Classic") turntable/arm system, with the Benz LP S-MR cartridge; the LaSource Aero CD player from France; the new and more reasonably priced Nordost Tyr interconnects; the Veloce battery-operated linestage and phonostages; and the McIntosh amps. All fed into the dazzling Silver Circle Audio 5 isolation transformer—more on its effect on the sound in a while. (The LaSource and the Tyrs have not yet been reviewed; the other components in the system are our standing references at present.)

So, for the moment, let's put aside the fact that the 3.7s are the best looking and, perhaps, best built of the Magnepans I have evaluated over the years, and get down to our first impressions.

Since Magnepan speakers have always performed at their best in Room Two, finding a close-to-right position for them at the outset was a snap. Diller had points he wanted to make. And these had to do with the positioning of the tweeter element. First, he toed the speakers (canted them) inward, with the tweeter strips near the center of the room. (I would, over the ensuing days, try them firing dead-on.)

I loaded up the Mercury CD of *The Composer and His Orchestra* and we listened through the introductory cut, where Hanson introduces the instruments and instrumental sections of the Eastman-Rochester orchestra. Hanson is placed dead center, in the empty hall, while the sections of the orchestra, recorded separately, were, placed as they would be in concert, arrayed around and behind the podium. The ensembles and individual

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instrumentalists were recorded with almost no compression, so the scaling in space and dynamics was close to what you might hear in person, thus justifying the term "living presence."

I immediately heard the acoustic *behind* Hanson, which I had not before. It was as if I could hear the distance to the back wall. And the air that filled that distance. It was as if the speakers had retrieved a third-dimensional space behind the conductor himself. Thus the 3.7s were delineating a virtual sonic portrait of the hall acoustic itself. All Magnepan speakers are dipolar in operation (by design), but no dipolar has captured this space in the same way before.

When the different ensembles (strings, reeds, brass, and percussion) played, individual instrumental details and overtones, formerly lost in a tangle of conflicting sounds in the louder passages, became, so to speak, separated and untangled, clarified, not hyped up. In *forte* passages, particularly of the strings and less so of the brass, instruments almost always tend to blur and lose some of their individual signatures. If you consider massed percussion, that effect becomes more odious since the transient attacks either blur or become veiled. The speed of the present-day ribbon and its increased dynamic capabilities are responsible, it would seem, for much of this clarity—attacks do not now lose their individual timbral distinctiveness. On the Hanson, the percussion section gets a muscle-building workout and each of the instruments used here (consider the tambourine and its "pop," for example, or the "shimmer" of the cymbal) comes strikingly alive.

We observed a more subtle illustration of the interweaving of ambient space and the illusion of true dimensionality during playback of the Regent recording of Ralph Vaughan Williams' Fantasia On Christmas Carols [RegCD330], which opens with a rich and vibrant cello solo, played in the capacious Worcester Cathedral. Here we not only heard some of the promised midbass realism from Magnepan, but more strikingly we could hear around and behind the cello—the entire instrument, its body resonant—and the same held true for the baritone solo that followed, the voice clearly defined (down to his chest's vibrations). This picture became more complexly fascinating as the male and female choristers entered and activated the vast interior spaces of the British cathedral.

Keep in mind that the speakers were fresh from a quite cold January morning. Out of the box, and on first play, they didn't sound *cold*. The highs were dynamic and extended, without any trace of rawness or any apparent need for break-in—this was, in and of itself, a surprise, a first. Indeed, as the session progressed, it became clear to me that the highs from the ribbon tweeter sounded unlike those in preceding models of Winey's ribbon. In the face of Diller's silences on this point, I was left to surmise that the current version of the true ribbon had either been significantly improved or employed in a different configuration from the usual (perhaps without extending as far down the frequency scale). He said later that there was little variation in the ribbon's application, leaving me to suppose that the present-day Maggie ribbon suddenly has acquired the dynamics and power-handling capability that eluded it in the past, and that it now produces a sound similar to that, say, of the current Raven ribbon designs.

After the first playback of the Hanson, Diller insisted that we swap the speakers so that the ribbon drivers were now near the walls of the room, instead of nearer to its center. He said this would give the soundfield a wider field of coverage for listeners instead of the almost fixed position (for a single listener) that the near-central position did. Like, that is, unto the ideal spot in electrostatic playback. With the near-wall tweeter setup, the soundfield became smeared and somewhat diffuse, and so goodbye to the precision placement and the deep dimensionality of the ambient field. Hanson's positioning became vague, individual instruments seem to float, as if barely in phase. Me? I thought this position undermined much of what the speaker could achieve. And the near-wall position was out.

One thing that struck both of us during the CD playbacks was the quality of

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the string sound. Diller, from the Hanson onward, seemed particularly taken (he was not familiar with the titles I chose) with the 3.7s' smoothness and open-ended airiness. Some of this I must attribute to the Silver Circle Audio 5.0 isolation transformer which, in its processing of RF interference and other induced high-frequency freak effects, actually smoothes out most digital glassiness, grit, and grain, thus bringing the much abused CD that much closer to analog. There were several dramatic examples of this, especially on the Vaughan Williams Fantasia when the chorus of high sopranos singing forte across the sonic stage did not break up, nor distort, nor do anything other than remind the heathen in me of angel voices.

The massed strings in the XRCD of Mehta's reading of *The Planets* ("Saturn" and "Mercury" in particular) not only had an opulence that had hithertofore eluded playback in Room 2, but showed the 3.7s were indeed different from past Magnepans, and closer, in fact, to the low coloration breakthroughs recently achieved by Carl Marchisotto with the Micro-Grand Reference and Michael Borresen with the new Danish Raidho speakers, for instance. There were illustrations of the 3.7s' potential, when they are fully warmed up, in the way—at the opening of "Saturn"—the growl and weight of the double-bass section, along with its

Technology

Later on, in an e-mail, I got Diller to expand (somewhat) on the mysteries of the 3.7s.

"The drivers are purely resistive since they are like a straight wire. The crossovers are first-order which provides a gentle phase angle..." And the crossover to the tweeter "is very close to the same point."

As for the quasi-ribbon: "The tweeter is a true ribbon. However, I am aware that these definitions have been a subject of debate. Our short version is that *any* deviation from a foil (usually aluminum) suspended in a magnetic gap is a 'quasi-ribbon.' And there have been a lot of creative variations of the true ribbon."

And, to wit: "As I said earlier, the Tympani IVa bass is the Gold Standard we set as a goal and that is what we went after. The midbass is much fuller than the 3.6 which gives the subjective impression that the 3.7 is much more efficient. However, we are not making any claims for increased efficiency....The lowest frequency 'achievable' is the same as the 3.6, but, due to much better midbass 'slam' everyone is saying it goes deeper."

And, to wit, a last thought: from HP. "When pressed for a more definitive technical explanation, Diller can still be frustratingly vague, at times, no change there. (Remember, I have known him since near TAS's beginning days). So, what's the big secret? Iranians aside. Maybe, from a marketing perspective, he thinks the review might be more interesting if he keeps me in the dark."

resinous overtones, were captured, and during the climax of the section, when, over soft strings and an organ pedal point, chimes large and small provided a backdrop of contrasting attacks.

As much as I was impressed with this initial session, I wasn't prepared for what I heard from LPs in the next one, which you will read about very soon. tas

