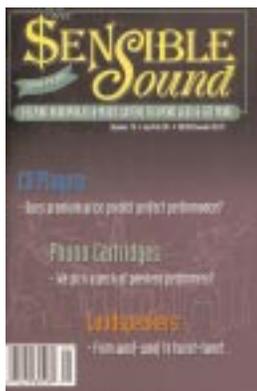


Helping Audiophiles and Music Lovers Spend Less and Get More out of Music.

from issue #73



### Reviewer: William C. Heck

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**Background:** First, I haven't listed components from my system in these pages lately, so

here goes: Parasound CD-P/1000 CD player, sometimes spelled during this review by an Arcam Alpha 8; Linn Sondek turntable with Linn Ittok arm, Sumiko Blue Point Special cartridge, and Mod Squad Phono Drive phono preamp; Krell KSL preamp; Tandberg 3026A power amp, with some use of a Legacy amp also; reference speakers are Quad ESL-63s. Interconnects are WireWorld Polaris and Eclipse, MIT, and Legacy. Speaker cables are old Monsters.

**Listening Habits and Preferences:** To understand this review fully, you should know that I'm one of those people who listen "seriously," usually in a darkened room with just the music playing. Excepting the occasional record while working at the computer, I rarely listen to music while I read or do other things; instead, I listen with as much focus as I can muster, trying to convince myself that I'm at the recreation of a musical event, i.e., a concert.

This means that I tend to be hypersensitive to colorations that remind me of the fact that the music is coming from recordings, electronics, and speakers rather than a live performance. It

also means that image, clarity, and resolution of detail are crucial, as these contribute greatly to the illusion of a live performance (At least for me they do. I'm fully convinced that different factors affect each individual's illusion differently). Deviations in frequency response, although hardly desirable, are more tolerable, except for those oddball resonances that instantly remind one that this is not the concert hall.

Finally, my preferred musical fare tends to be orchestral classical music, but various other idioms sneak in, especially some mainstream jazz and, when the moon is in the right phase, some classic R&B.

Now, on with the review.

**Construction and Appearance:** No doubt about it: the Whispers are big speakers. They are 63" high, although only ("only" considering the height) 17" wide and 13" deep. Even though the manual says that they weigh in at 210 pounds each, they actually can be moved by those with less than King Kongian strength once upright on their casters. The units that I had in for review were inclined to be a bit tipsy when moved,

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*Dudleston's approach is to avoid interaction with the room in the first place."*

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but the Legacy folks tell me that they have repositioned the casters to enhance stability on new production.

Interestingly, **the Whispers don't appear quite as large and dominating as their dimensions might suggest. That's partly due to the relatively narrow and thin proportions, and also to the nature and shape of the baffles.** To get the idea, imagine taking two smoothly shaped pieces of wood, arched rather than squared at the top, each about an inch thick, placing them about 4" apart with some spacers to hold them in that relationship, then covering the space between with a recessed black grille cloth. Then add frames covered with more black grille cloth to the front and rear of the speakers, but remember that these frames stick out only about 7" each. Check out the accompanying picture as well as the pictures in the Legacy catalog or on their Web site.



LEGACY AUDIO Whisper

And then there's the finish on those pieces of wood. Several T&S reviewers have commented on the woodworking and finish of various Legacy speakers, and that woodworking tradition obviously continues with the Whispers.

The edges of the baffles are beautifully rounded and **the rosewood finish on the review samples is absolutely gorgeous. These are very attractive speakers.** The front baffles are fully finished, and I found the units easy on the eyes, even with the grille cloths off. In the 20 years or so that I've been dragging home stereo equipment, my wife's only comment on the appearance of any of it was one remark to the effect that the original Quads were pretty ugly. The fact that she said, without prompting, that the *Whispers looked very nice* is the most significant thing I can say about this topic!

So what does one see sans grille cloths? Roughly in the center of the baffle is a foam rectangle, into which are recessed a horizontally mounted 4" ribbon tweeter and a 1.25" soft-dome midrange. Four 7" Kevlar drivers are next, two above and two below the tweeter/midrange units. Toward either end of the baffles are 15" carbon fiber/pulp composite woofers. Actually, there are two woofers at each end, one mounted about four inches behind the other. Peering around the back of the speaker, we find a 12" passive unit and two pairs of gold-plated binding posts, jumpered but suitable for biamping. The 12" passive woofer is designed to absorb rear wall reflections.

**Rationale:** So much for how the Whispers look, but why do they look like they do?

The Whispers can be seen as the culmination of several design trends in Legacy loudspeakers, based on designer Bill Dudleston's understanding of factors important for satisfactory reproduction of music. Two factors that he particularly emphasizes are **(1) reduction of room contribution to the sound reaching the listener and (2) the ability to reproduce and propagate musical signals of any frequency cleanly, i.e., with low distortion.** Before we go further, please note that I absolutely am not saying that Dudleston doesn't think other factors are important, but rather that **what sets his designs apart is particular attention to these two areas.** The influence of these factors can be seen in the design of other Legacy speakers, especially the Focus, and reaches its ultimate expres-

sion (so far) in the Whispers.

Let's look at the issue of reducing the room contribution. More specifically, reducing room contribution involves minimizing room "noise" (as he puts it) in the midrange and high frequency regions, and minimizing low frequency resonances. According to Dudleston, the Whisper is designed to act as an "acoustic gun," which means that the sound is propagated into the room in such a way as to reduce interaction with room boundaries. The idea is to remove the room from the perceived sound as much as possible; to "turn down the room." Thus, the ribbon tweeter is mounted horizontally, rather than the usual vertical setup, in a foam insert to control dispersion. The dome midrange is also in the foam insert, and the four midwoofers are arranged to avoid (by cancellation) both side wall and

floor reflections.

Finally, the arrangement of the woofers at the top and bottom of the baffle reduces floor (and ceiling) reflections, while the back-to-back woofer loading provides a figure-8

radiation pattern. A simple "walk around the speaker" test reveals that these techniques work reasonably well.

It's worth noting that Legacy seems to carry the goal of controlling the sound in the room further than most other manufacturers. For example, many speakers have features such as foam inserts or rounded baffles, but frequently the purpose is explained in terms of reducing diffraction at the speaker, e.g., reducing diffraction effects from the baffle. Legacy's approach seems to start from the other end, which is to control the sound in the room. **The market is full of products, such as pads, foams, cylinders and other absorbent and reflective devices, meant to fix room interaction problems by controlling resonances and reflections. Dudleston's approach is to avoid interaction with the room in the first place.**

Legacy designs aim to control directivity and minimize distortion by increasing the radiating surface proportionally to decreasing frequency (increasing wavelength). For example, if a 1" driver would be appropriate for, say, 10,000 Hz, then similarly a 10" driver, or its equivalent, would be desirable at 1000 Hz. Likewise, at 100 Hz, a 100" driver would be required to maintain constant directivity.

Obviously neither the Whispers nor any other speaker has a 100" driver, as practical limits intervene.

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*"The result is a revelation. These characteristics make the Whispers sound far more open, with fewer speaker artifacts, than any dynamic speaker in my experience."*

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Luckily, room boundaries help out (below 125 Hz), so one doesn't need quite this much driver area on the low end, but you see the trend here. (It should be noted that control of all this driver area is also important. For example, the 1.25" dome midrange in the Whispers has a 48 oz. magnet structure). The result is said to be the ability to reproduce any reasonable signal cleanly, i.e., with very low distortion, and with sufficient pressure level to sound realistic.

For a cone of a given size, for each halving of frequency (i.e., dropping an octave), cone excursion requirements increase by a factor of four to maintain a linear distortion characteristic. Now, all dynamic speakers have bigger woofers than tweeters, but in most cases not that much bigger. The upper half of the Legacy product lineup does feature some pretty healthy driver complements, but it's only the Focus (two 7" "midwoofers" and three 12" woofers) and the Whisper (four 7s and two 15s) that start to approach the driver size relationship described above. In addition, providing the proper radiating surface at different frequencies also helps to control dispersion; thus back to the issue of controlling room contributions to the sound.

So what's the point of these design features? They are meant to achieve several things.

**Controlling dispersion into the room results in cleaner transients and better resolution**

(less interference or confusion to the ear from early room reflections), which un.masks details and spatial clues normally obscured by room interactions. Given smooth rolloff off-axis (linear rate of attenuation), **the narrow dispersion also is meant to produce a wider "sweet spot" with more realistic imaging. As the listener moves to either side, the response is dropping more quickly from the near speaker than from the far one; thus, the far speaker remains audible and the stereo effect is preserved.** (Those who prefer an amorphous wall of sound rather than a clearly defined image should look elsewhere). **Moreover, increasing piston area with decreasing frequency lowers distortion and, as it happens, increases efficiency. Low distortion and high efficiency mean that the speaker will sound good over a wide dynamic range.**

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*"...the Whispers can exhibit the openness and nuanced delicacy of electrostatics but do it across much broader frequency and volume ranges."*

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**The Steradian Processor:** The Whispers come with a dedicated version of the Steradian electronic processor, somewhat similar to the Steradian unit that KWN described in his review of the Legacy Focus speakers, but with an algorithm especially designed for the bass characteristics of the Whispers. While the Steradian is optional with the Focus units, the supplied processor must be used with the Whispers.

The Steradian processor (hereinafter, just "processor") has three main functions. First, it provides some equalization, i.e., brings up the bass level slightly. Secondly, it allows the user to adjust the damping (Q) of the bottom end. Finally, it enhances separation at low frequencies. The only control on the box is a knob on the front panel that adjusts the Q and the amount of equalization.

The range of adjustment is quite large. At the control's minimum level, the Whispers sound horribly dry (overdamped) and bass shy. At its maximum, they sound way too heavy, wooly, even tubby. There is no scale or indicator around this control, by the way, as

the Legacy folks don't claim that there is one correct setting (although there is a set screw on the knob that one can use as a rough pointer). Instead, the user is to set the control by ear. Dudleston says that most customers set it rather high (lots of bass) at first, then gradually reduce it as they come to appreciate the virtues of tight (but still very much present) bass. For those weaned on electrostatics and other dipoles, such as yours truly, starting with a relatively low setting seems natural. I ended up

with the control slightly less than halfway up, at about the 11 o'clock position. According to Dudleston, most users end up with a setting of between 10 and 12 o'clock.

By the way, I would imagine that this control could be used to improve the sound of recordings needing a bit of help in the bass. Of course, one could not restore bass that was completely missing, but it might be possible to goose up the low end; even better, to tame an overenthusiastic bottom octave. I never was in a tweakish enough mood to try this, though.

Setup: Bill Dudleston and Ron Rollet from Legacy delivered the Whispers and helped set them up. Most of those who purchase these speakers will take delivery from a common carrier, so be prepared to have someone, or several someones, around to help move, unpack them, and move them into the listening area. As I remarked above, though, once up on their casters, these are not especially difficult to move. I moved

them around here and there on low pile carpeting while experimenting with positioning with no undue difficulties. I do imagine that they would present quite a challenge on a thick rug, though.

Anyway, the Legacy folks also helped position the units, but this was an exercise of a few minutes. We simply placed the units on imaginary diagonals in the listening room at reasonable distances from rear and side walls, roughly in the same positions that my reference Quad 63s had occupied, then toed them in so

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*“...the impressive thing was the consistency of this image throughout each recording.”*

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that the axes of the speakers crossed just in front of the listening positions. (The diagonals that I'm talking about are from front left to right rear and from right front to left rear corners of the room). I later spent some hours fiddling with position and toe in, but

LEGACY AUDIO Whisper  
rear view



ended up moving the speakers back to their original locations. Legacy's advice and my experience both indicate that positioning is not especially critical with these units.

#### **Initial Listening and Adjustments:**

After the Legacy van pulled out of the driveway, I behaved in the usual "kid-in-the-candy-store" manner: toss on a CD and let 'er rip. Now this obviously was before any break-in period, so I wasn't look-

ing for final answers, just some quick impressions.

The most notable effect was **the incredibly stable image**. Just about every recording yielded a clearly-defined, rock solid image. Of course, the quality of this image (width, depth, etc.) was a function of the recording, but **the impressive thing was the consistency of this image throughout each recording**. Instruments could play high or low, loud or soft: no matter, everything stayed in place. This is actually somewhat unusual; as the orchestra or individual instruments head for crescendos, most speakers let them wander about, cave in, flatten out, or otherwise change location or proportions. Not the Whispers. Loud or soft, high or low, no difference.

Related to that was the ability of these units to play at any level with aplomb. At anything like realistic levels, and sometimes exceeding realism fairly dramatically, the Whispers sounded just fine. I never heard anything that sounded remotely like distress anywhere in the sonic range.

Note that this was all done with a 100-watt amp, not some gigantic bruiser. Although one can use a really powerful amp if desired, the Whispers are quite efficient (94.5 dB) and, so far as I can tell, an easy load to drive.

One characteristic that threw me off a bit at first was that the tweeter/midwoofer vertical midpoint was slightly above ear level (which is around 38" off the floor in my usual seat; I sit on a futon, which is relatively low anyway). This resulted in a sense of looking up to the soundstage. I got used to this pretty quickly, although I occasionally felt compelled to raise my seat slightly by sitting on a cushion. As each individual sits differently in different chairs, I can hardly say this will be an issue for everyone, and the Legacy folks tell me that they can modify (shorten) the base if it really bugs someone, or you can simply not use the base.

I did run into what appeared to be a more substantive issue, which was hearing an objectionable amount of noise from LPs (vinyl records). The noise level was just high enough to be slightly disconcerting, although in truth it did not interfere significantly with listening at normal levels. As it happens, my phono preamp was rather noisy, the Whisper processor tends to exaggerate noise slightly as a side effect of enhancing separation, and the high efficiency of the Whispers also contributed. As one hardly can blame the speakers for the racket that the preamp is making, I raise this issue only to warn those with borderline noisy components upstream that they could encounter some difficulties. Quiet sources, such as CD players, stayed quiet and presented no issues at all; I replaced the Mod Squad phono preamp with the phono section of an Audio

Research SP-7 and the result was nearly as quiet as the CD player.

In the interim, the Legacy folks sent me a different version of the processor, one optimized for use between amp and preamp rather than in the tape loop, which reduced the noise just enough to eliminate it as a consideration. Which version of the processor one gets is a customer option; I'd recommend this latter version as it eliminates an extra set of interconnects.

**Long-term Listening:** For me the most interesting aspect of the Whispers' sound was its similarity to that of my reference Quad 63s. **The sound of the Whispers is very neutral and open**, to use a couple of overworked but accurate terms. **In fact, characterization of the sound is somewhat difficult, simply because the Whispers are so**

**accurate.** Moreover, it is apparent that Legacy has succeeded in its main design goals. I can describe the sound of the Whispers most effectively in relation to those goals, as the sound is significantly different from that of most other speakers, even its siblings in the Legacy lineup.

Recall that the design goals for the Whispers included reducing the contribution of the room and being able to reproduce sound cleanly and realistically at any level. **These two goals have been met to a level that I have rarely, perhaps never, encountered elsewhere. The result is a revelation. These characteristics make the Whispers sound far more open, with fewer speaker artifacts, than any dynamic speaker in my experience.** It's rather difficult to put this into words, but in comparison, most other dynamic speakers sound closed in, heavy, and boxy. The Whispers simply seem to discard all those artifacts, revealing the music standing alone.

This comparison applies even to other Legacy units. For instance, I stopped by KWN's to get a fix on his Legacy Focus units. His setup that day wasn't optimal, so I don't want to put too much stress on the particulars, but the contrast to the Whispers in terms of clarity, especially from the lower midrange down, was apparent. Now don't get me wrong, the Focus speakers are mighty fine in their own right. But the Whispers simply take openness to another level.

In the more common ways of describing speakers, the Whispers certainly excel. Long-time readers may

recall KWN's review of the Legacy Focus in Issue 54 or TL's review of the Legacy Classics in Issue 64. Those readers may be bored because my listening notes are going to sound like an echo of these two. Let's try this in descending frequency order.

The treble was totally unremarkable in that it was just there, with no apparent harshness, strange resonances, or weird harmonics. Moving to the upper midrange, the main impression was one of extreme openness and clarity, as described above. As KWN noted in a reply to a cantankerous reader who had complained about his lack of prose in describing the treble performance of the Focus speakers, I could go on with a page of rapturous prose, but what would be the point?

Interestingly, I was concerned at first that the

Whispers lacked the last bit of brilliance or sparkle in the presence region or treble. It took me some time to realize that the *complete lack of distortion* of the sort encountered in most other speakers made them sound slightly subdued, but that this was true to the music.

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*"...the Whispers provide a sense of solidity that one would expect given the large driver area and high efficiency."*

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Legacy can accommodate those who still want to tip up the top end, as it is possible for customers to snip out a trimming resistor, boosting the highs by about 1.5 dB. For those who have heard the Focus, I'll mention one other point. My perception, based on several hearings of the Focus in different venues, is that the Focus and the Whispers sound very similar from the midrange up if one accounts for the greater openness of the Whispers. In an anechoic environment, I suspect that they would sound nearly identical.

Moving to the lower midrange and down to the upper bass, **the Whispers provide a sense of solidity that one would expect given the large driver area and high efficiency.** As we move into the bass regions, again the Whispers sound different from most other speakers. The differential/dipole bass has certain qualities of tightness and clarity that are distinctive. Both subjectively and objectively, there is less "oomph" here than with, say, the Focus. But the bass that is present, and there is plenty, is extremely well defined in terms of pitch and duration. For example, check out the Casals/Marlboro Festival Orchestra recording of Beethoven's Seventh Symphony (CBS MYK 37233). (Yes, the orchestra is a bit ragtag, but what fun they are having!). It is marvelously clear that the tympani near the end of the finale are playing intervals of fifths. Not just some-

thing in the neighborhood of fifths, but exactly fifths. Similarly, string bass notes on any number of jazz recordings are superbly defined: an initial "thunk" as the string is plucked, followed by a realistic decay, with the resonance of the wood body of the instrument clearly evident, all with a well-defined pitch rather than an amorphous rumble.

The bass reproduction of the Whispers, though, is not for everyone. The Whispers simply do not create that gut-thumping roar that some other speakers can manage; they emphasize clarity over raw volume and power. Because of their unique bass propagation characteristics, they do not build up bass pressurization in the same way that other speakers do. Don't get the wrong impression here: the Whispers do provide plenty of bass power, just not as much as, say, the Focus. To put this another way, I could imagine adding subwoofers to the Whispers more plausibly than doing so for the Focus.

Let me try to characterize the sound a bit differently, first by comparing the Whispers to the reference Quads. On "Nebuchadnezzar" from Marcus Roberts's *Deep in the Shed* (Novus 3078-2-N), the Quads placed the band a bit farther forward; the cymbals and reeds both had just a bit more presence, with the sound of the metal resonating a bit more obvious. The Whispers, on the other hand, provided more foundation for the music. So far, pretty close; with the Quads perhaps a or two point ahead on "air" but the Whispers up a couple of points for upper bass solidity. But with orchestral music, such as the Fleisher/Szell recording of the Brahms First Piano Concerto (Sony MH2K 63225), the Whispers were smoother, more relaxed even on complex passages, and still provided that solid foundation in a way that the electrostatics just couldn't.

Of course, the comparison breaks down further if we increase the volume (the Quads won't play real loud), or plumb the depths with, say, pipe organs or synthesizers (the bottom octaves and the Quads are not acquainted). In other words, **the Whispers can exhibit the openness and nuanced delicacy of electrostatics but do it across much broader frequency and volume ranges.**

**But the most interesting point is not the relatively small differences between these**

**units, but the distance to most other dynamic speakers. The clarity remains remarkable.**

Here's an example: on the "Mercy Mercy Me (The Ecology)" track of Marvin Gaye's *Greatest Hits* (Motown MCD09005MD), there is a second speaking voice behind the lead vocal (presumably Marvin Gaye overdubbing). Even hearing clearly that it's there and is indeed a voice is an achievement; with the Whispers, one can almost make out the words, which is astonishing. And compared to smaller speakers well, there's no

comparison. Here's where the large driver area comes in; small speakers, in my experience, tend to become congested as the music takes off. The Whispers don't, ever. Small speakers tend to have troubles sounding realistic with big instruments, such as solo piano. The Whispers do pianos just fine, thank you. For example, as I type this I'm listening to the *Earl Wild Plays Rachmaninov* CD from Chesky (CD58), but it really doesn't matter

which piano recording I choose. They *all* sound like pianos through the Whispers, with the full harmonic and dynamic range of the instrument faithfully reproduced. And it's that dynamic range that is the real strength here; the sound simply does not change regardless of whether the pianist is tickling the keys or leaning on them.

In the end, I can put it very simply: although they will impress your friends, these speakers are not about that; they're about making music. Regardless of the type of music, volume levels, or any other obvious factor, the Whispers put performers making music on a stage and let them play. That pretty well covers it, and *it's the highest praise I can think of for any speaker.*

**Value and Recommendation:** All right, it's difficult to refer to a pair of speakers whose cost approaches that of an entry level car as "\$ensible." If you can budget this kind of money for speakers, the value proposition can be argued simply in physical terms: many high-quality drivers, wonderful wood-working, lots of poundage. More importantly, though, **the sound from the Whispers is uniquely good. Anyone auditioning speakers near or above this price level simply *must* hear the Whispers.**




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