

## Harbeth HL-P3 loudspeaker

By John Atkinson • December, 1993

Back in the early 1970s, the BBC needed a physically unobtrusive, nearfield monitor loudspeaker for use in outside-broadcast trucks. Accordingly, they instructed their design department, which at that time featured such luminaries as Dudley Harwood (the "father" of the polypropylene cone, who went on to found Harbeth) and the late Spencer Hughes (the "father" of the Bextrene cone, who went on to found Spendor), to produce such a model. Thus, not only was what was then probably the finest collection of British speaker-design talent involved in its development, there were no commercial constraints placed on the design. The only limitations were intended to be those arising from the necessarily small enclosure and the absence of the need for a wide dynamic range under close monitoring conditions.

The result of their efforts, the [LS3/5a](#), was licensed to commercial speaker companies for production, the Rogers version appearing in 1975 and remaining in production until early 1993. Other licensees have included Audiomaster (whose designer, [Robin Marshall](#), went on to found Epos), Chartwell, RAM, Goodmans, Spendor, and Harbeth; the last two still manufacture the speaker.

In all that time, the design has been revised just twice. In 1988, the woofer's surround was changed from a springy Neoprene rubber to a more lossy vinyl compound and the crossover was redesigned, not to change the response, but to bring the production response window closer to target and to make the impedance a little less demanding. In 1990 a bi-wiring option was approved by the BBC, provided the performance in single-wired mode met the original specification. (The Harbeth version reviewed is only available in traditional single-wired form.)



The 1992 Kinergetics Holdings takeover of KEF, who had supplied both drive-units and assembled crossover boards for the LS3/5a, brought the future of the classic miniature speaker into doubt. Both Rogers and Harbeth introduced identically sized models of their own, therefore, intended to fill the gap left by the '3/5a's imminent demise (footnote 1). This review looks at the Harbeth HL-P3 and compares it both with a 1992 [Harbeth-manufactured pair of LS3/5as](#), and a the Harbeth HL-P3 and compares it both with a 1992 [1978 pair](#) of Rogers LS3/5as.

### Harbeth HL-P3: \$1199/pair

Harbeth was founded by Dudley Harwood and his wife Elizabeth—hence "Har" and "Beth"—and made its name in 1977 with a Spendor BC-1-sized monitor speaker that used a seminal polypropylene-cone woofer developed by Harwood. The company never really grew as a business to match the quality of its products, and was bought by ex-NEC engineer Alan Shaw in 1987. Alan obviously had the magic touch—in one year Harbeth's gross income grew from \$165,000 the last year it was run by Harwood to \$1.5 million—and the company is a major exporter to the Far East.

The HL-P3 was introduced in 1991 but has only recently been available in the US. Its cabinet, made from 12mm MDF rather than plywood, is the same size as an LS3/5a's, the main differences being that the veneered, 18mm-thick baffle is not set in, and the grille is a single sheet of black cellular foam. The drive-units are a 19mm aluminum-dome tweeter from SEAS and a 110mm polypropylene-cone woofer constructed on a diecast chassis. Unlike the LS3/5a, which throws out a stray field that confuses airplane compasses, the HL-P3's units are magnetically shielded to allow the speakers to be used close to a TV set or monitor. (Five HL-P3s plus a subwoofer would make a very high quality Home Theater system.) As in the LS3/5a, the woofer is mounted from behind the baffle, which might be thought to introduce some dispersion anomalies; in fact, it was done to *smooth out* the off-axis behavior.

The drive-units are crossed over at 3.5kHz with a 21-element crossover, featuring 18dB/octave electrical slopes. The low-pass and high-pass sections are completely separate and are brought out to separate pairs of terminals on the rear panel to allow bi-wiring. Much use was made of computer modeling in the speaker's design. The HL-P3 is intended to be used on high-quality stands away from room boundaries. The review samples came finished in a beautiful ebony veneer.

### Sound

In a word, "stunning." In another word, "clean." In another, "an astonishing amount of bass for such a small speaker." (Okay, that's more than one; I thought I'd check to see if you were paying attention.)

Yes, the HL-P3 is a minimonitor and will never be mistaken for anything else. But its upper-bass bloom contributes to a feeling of low-frequency power without doing the usual LS3/5a things that reduce the sense of pace. Despite bass that, in quantity, seemed to be very similar to that of the LS3/5a, the HL-P3's quality was quite a bit better, there being more of a sense of flow to the music, of booty being better kicked along.

I have to add a caveat that the HL-P3 can't work miracles—the radiating diameter of its woofer is really only 4"—and its owner should be careful not to exceed its power handling. The left- and right-channel Fender bass tracks on *Stereophile's Test CD 2*, for example, could only be played up to an in-room spl of around 90dB without audible distress.

The midrange sounded generally clean, not nasal in the manner of the BBC design. In fact, after much listening, I still had nothing to say about the HL-P3's midrange character, which is itself a compliment. In the treble, the sound was less wiry than my old LS3/5a, and cleaner than the newer Harbeth version.

It's no coincidence that the dominant instruments in jazz and rock are the saxophone and electric guitar, respectively. To a considerably greater degree than typical classical instruments, players of these instruments can shape the sound of each to reflect their own musical personalities. Only the human voice itself has more of an ability to be colored by personality, which is why these instruments can truly be said to sing.

The HL-P3 faithfully reproduced the different characters of different guitarists. Whether it was Jeff Beck's heavily fingered Fender Stratocaster, the wiry Telecaster played by Jimmy Page on the "Stairway to Heaven" solo, the distinctive signature of Queen's Brian May's homemade axe, or Eric Clapton's various Gibsons in Cream or the Stratocasters of his solo years, their identities remained undiluted via the little Harbeths.

Well-recorded classical piano—Peter McGrath's excellent 1987 recording of Ivan Davis performing Grieg's *Holberg Suite* (Audiofon CD-72022), for example—sounded vividly real. Despite the speaker's low-register reticence, it did attempt to convey the bass weight of the piano. The LS3/5a, by comparison, sounded spongier in the bass. This was at moderate levels, however; played too loud with this recording, the HL-P3 lost lower-midrange clarity.

The HL-P3's mid-treble seemed a bit forward-balanced, pushing the in-room sound to the edge of brightness. Perhaps because of this, the dark-sounding *Melos SHA-1* proved a better match than the more analytical Audio Research LS2B. The high-level voices on the 1990 Hyperion recording of Vaughan Williams's *Five Mystical Songs* (CDA66420), for example, became too strident with the LS2B. The Melos pushed them all farther back in the soundstage.

Overall, and as long as the speaker was not played too loud, the musical detail revealed by the Harbeths was almost preternaturally accurate. You could vividly hear the delicate halo of space that surrounds the solo violin that opens the Vaughan Williams *Serenade to Music* on the Hyperion CD, but without it being thrust under your nose.

My acid test for imaging accuracy is the "soundstage mapping" track on *Stereophile's second Test CD*. Larry Archibald's voice and handclaps should move first from beyond the left speaker, across the center of the stage with a slight rush, then beyond the right speaker. Second, you should easily hear him move from way back behind the plane of the speakers to right up to them. If a pair of speakers can do this without distorting the path Larry is supposed to take, they are high-quality indeed. In fact, only the magnificent Thiel CS5s have not failed this test in one way or another.

Larry took a U-shaped path via the HL-P3s, the image to the outside edges of the speaker positions being set back, though not collapsing into the speaker positions themselves. His image position was always stable, however; even when it lurched from one speaker to the other as he walks around the microphone stand, his path was unambiguously clear.

### **Conclusion**

Performing at its best in the same free-space location, the Harbeth HL-P3 has a less-colored upper midrange than the LS3/5a and has a better-developed sense of pace. It sounds surprisingly full-balanced for a miniature; I enthusiastically recommend it to those who are attracted to the BBC-designed loudspeaker but desire a less laid-back, more involving presentation.

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Footnote 1: As fate would have it, news of the speaker's demise was premature. KEF intends to continue providing parts, and it is expected that Rogers will resume manufacture of the LS3/5a. The Rogers brandname was recently purchased by Hong Kong-based Wo Kee Holdings, but Rogers research and production remain the responsibility of UK-based Swisstone Electronics, which has owned the name since the late '70s. In addition, as reported by KK last month (p.39), the BBC has licensed production of a new, higher-power minimonitor design, the LS5/12A, to Harbeth and Dynaudio, but reportedly not to Rogers.—**John Atkinson**

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