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Subject: Imaging with Pi Speakers

Posted by [Bill Epstein](#) on Mon, 26 Nov 2007 00:29:14 GMT

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I clearly recall upon hearing my first set of Pis, Theatre 4s, that they didn't image like "regular" speakers. There were a lot of posts back then and since to that effect and ways to improve the soundstage. Another conventional wisdom. My current set-up, which I've posted about, amazes me with its imaging: front to back, side to side, placement of instruments and voices, accurate size of vocal images as well as orchestral sections create a believable breadth and depth of image. I have my Theatre 4 Pro-type cabinets about 60" from the front wall and 40" from the sides. The cabinets are 21" wide, 13" deep and the dustcap of the 2226 is 17" off the floor. Apart from excellent electronics and cabling I wonder if the width and depth of the cabinet aren't making their contribution. Switching from one amplifier to another there are clear differences between the portrayal of image but there is a constant, too. Another large factor has to be the current seating arrangement I've recently done. Despite strong efforts to sound condition the room with panels and traps, a vast improvement resulted from removing all the furnishings from the central area and acquiring an 'executive-type' chair that reclines. There are no furnishings between the listening chair and the speakers. The chair itself, when occupied, has little surface to absorb or reflect. The recliner does an interesting thing. Sitting normally, music sounds great. Reclining, which lowers my ears and moves them farther away from the speakers, causes the soundstage to attain better focus which results in an additional sense of reality. Just a few thoughts on a quiet Sunday night that ends a wonderful vacation.

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Subject: Re: Imaging with Pi Speakers

Posted by [Wayne Parham](#) on Tue, 27 Nov 2007 02:43:31 GMT

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I've always found speakers that project a nearly uniform radiation pattern sound most natural. The thing is, the opposite case - speakers with very non-uniform radiation pattern - create a pinpoint "pocket" where sound is best. The trick is to carefully place them in the room to create a sort of "virtual localization" of individual sounds. Reflected energies from such a speaker are non-uniform, so different sounds are reflected from different places in the room with various levels of intensity. This creates a sort of virtual artificial soundstage, with instruments seeming to come from different places, formed by the interaction of multiple reflection points. Owners of speakers like these usually tend to want to move them far away from room boundaries and are often very concerned with room treatments, all in an attempt to control the reflected energies, in effect, taming the room to create an artificial soundstage. When you have directional speakers that create a uniform reverberent field, you get much better coverage throughout the room. The more directional the speaker, and the more uniform its directivity, the less influence the room has on the overall sound, at least above the midrange band. Localization of sounds is made possible solely by the position of each speaker and by the relative loudness of each one. Any reflected energies will have the same tonal character as direct energies. Early reflections are reduced because the horn directs sound into the room and away from nearby boundaries. This leaves mostly late reflections from opposing walls which are largely ignored subconsciously. Directional speakers

that create a uniform reverberent field make a much more transparent veil of sound.

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Subject: Re: Imaging with Pi Speakers

Posted by [tmoore](#) on Thu, 29 Nov 2007 01:26:27 GMT

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I read one of your posts from quite a while ago on this subject and thought that it was interesting, but I wasn't totally convinced that you were correct. Now, as I sit in my office listening to theater 6 corner horns on a small SET amp I am convinced that you are absolutely right on the money. Natural is the best way to describe how music sounds with this combo, not detailed, musical or revealing, just natural. Several years ago I spent quite a bit of time and money putting together a stereo that produced a very detailed and precise soundstage. I loved having a very detailed scale model of a performance right in my living room. But if I closed my eyes while listening to live music, whether in a jazz club, bar, or orchestra hall I never actually "saw" a soundstage like I got with my stereo. To my ears the corner horns sound much more like listening to live music. Put another way, I used to listen to a great re-creation of music, now I listen to the music.

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