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Subject: Re: Image perception

Posted by [Earl Geddes](#) on Sat, 21 May 2005 19:33:48 GMT

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WayneWell as usual I agree with a lot of what you say, but some I don't. Without going too deep into details let me say that in the reply above, I am not sure that we are talking about the same thing. I mean Bose speakers could never do what I am talking about. In fact, after thinking about it, I am not sure that any wide directivity speaker could do it unless it were well away from any boundaries, which is tough in a typical room. It would need to be like the trick that I used to do as a kid. Lay on the floor and place the speakers about a foot or two away from your ears. The image will be locked on, almost like headphones. In your link, I would agree that most of the terms that you mention are nebulous and ill defined, but I don't think that "disappearing speakers" is. I use this term, I think that it is very clear what it means - you cannot locate the speakers even though there is a sound stage - and obvious when you hear it. All of the other terms I avoid. At my current understanding of the disappearing speakers it is done by a setup that is free from diffraction in the vicinity of the speaker. Horns, to me, have never had this quality, because most diffract somewhere - at the throat or the mouth, or a diffraction slit. You can always pinpoint a typical horn. You can almost always do this with a typical tweeter too, as there is always nearby diffraction from the tweeter assembly, mounting, enclosure, other speakers. When you have a system that has a minimum of diffraction then the speakers do indeed seem to disappear. This is what I have always tried to achieve and what I believe my speakers do better than any others that I have heard. So to me, disappearing speakers is a very real objective. But my current post is not really about disappearing, although it may well be that until the speakers do disappear, the effect that I am talking about may not be readily apparent. That's what I am trying to find out. PS. To call image localization "phase" dependent is not really a good usage of the term. That's because there are actually several complete phase rotation between the two ears at HF and the phase is then ambiguous. The better term is inter-aural time difference. Sure phase depends on this, but this term is unambiguous while the phase is not. Phase differences are only meaningful between 10 and 360 - after that it's a phase delay or there are multiple delays with the same phase difference. Perhaps a minor point, but in some situations a critical one. Earl