
Subject: OB - V3

Posted by [wunhuanglo](#) on Sat, 10 Jul 2004 22:38:04 GMT

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Today I put the Altec 3182's, 1 each, into 16" deep H frames - 12 MM Xmax, 1.45 Liters Vd.No EQ, levels matched by ear. XO @ 150 to the Fostex 208ESigmas, 4K to the Cantus ribbons.Fairly low cone travel, even at high levels (surprised me). Not the "slam" they had before, but tonally, much "righter".Tomorrow, I'll put the analyzer to them, EQ the roll-off in the bass.Like GA Briggs said, it all depends on what you listen for. For me, as far as being tonally right, they're the best yet.

Subject: Oh, yeah....

Posted by [wunhuanglo](#) on Sat, 10 Jul 2004 22:51:07 GMT

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there's a pair of very heavily braced 7 ft^3 boxes on the patio waiting for trash day. Come on by and grab'em.

Subject: Re: Oh, yeah....

Posted by [Wayne Parham](#) on Sun, 11 Jul 2004 05:07:49 GMT

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Sounds like you're doing some really neat stuff with your speakers, Charlie. Please post photos of 'em when you can.Thanks for making those 7ft3 cabinets available! That's really nice! It will make an excellent cabinet for lots of 15" and 18" subs. You might tell people what state you're in so they'll know whether it's an option for them to snag your cabs.

Subject: The boxes...

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 12:43:24 GMT

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I'm near New Orleans.If somebody wants to pick them up they can email me, but they're nothing special at all - wood grain vinyl wrapped MDF (black).Actually, I was kind of fooling around to make a point that only I got, I guess. It's just amazing to me that these two enormous, heavy, complex boxes were replaced with little H-frames and to my ear for the better.I used to wonder about the street musicians playing guitar in the French Quarter and their open-backed speaker cabs - I don't wonder anymore.

Subject: Re: OB - V3

Posted by [Manualblock](#) on Sun, 11 Jul 2004 13:03:32 GMT

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Hi; Years ago there was a magazine, like a little pamphlet thing called Audiophilia, maybe you heard of it I don't know how widespread it's distribution was. Any way they propounded the open baffle theory in a series of articles. We here all tore off the back and sides of numerous KLH and Wharfedale speakers and experimented endlessly with xover designs or using 1st order oxovers or just using caps to roll off the tweeter. We built large single plane baffles and mounted JBL woofers to them, on and on. I still have a nice pair of alnico 12" on a flat baffle with a titanium tweeter mounted in the center on a brass rod screwed to the baffle board. The speakers sounded more open and smoother with nice transients. Boxes do hurt performance. But in the end the open baffles sacrificed way too much body and immediacy and eventually the trend died. We actually discussed whether 3/4" or 1" baffles sounded better.

Subject: It's so hard to communicate this stuff in writing....

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 14:22:02 GMT

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I sense some of what you mean about "body" - there is something "thinner" about the sound. Right now I'm just beginning to experiment, but I think, for me, it may be the absence of the box/horn colorations I've grown used to over all these years. The immediacy part, I'm more certain of. I think they sound very "immediate". My oldest daughter (a Frank Sinatra fan) actually had a big grin yesterday when she put on a new CD that had just arrived - "Francis Albert Sinatra & Antonio Carlos Jobim". It sounded very right, very "immediate" to me. I asked her what she was smiling at - she said "it sounds goood". I'm not disparaging your experiences or opinions, just commenting on my own. And part of the difference in experience might be due to some differences in what I'm working with and the stuff you used. Since I'm an old man now I have access to a bit more disposable income. I have huge bass drivers with very high Xmax and relatively low Qts. (If I sell the stuff I have on eBay, I'm going a step further and buying some Adire Tumults). The mid drivers are pretty much tailor-made for the application (OK not actually, but much more so than just a random 8" midrange driver). I'm running the bottoms with a Crown K2 - not lacking in power or control. I have active crossovers, equalizers, and a RTA to adjust them. What I'm trying to suggest is that the past for loudspeakers might be their future. Paper cone dynamic drivers and the materials they're made out of may have arrived at a point where it makes sense to return to open baffles. When Rice & Kellogg started out the electronics weren't available, and neither were the filter theories well developed (Linkwitz hadn't even been born). The materials were limited and the amplifier power certainly didn't exist. Boxes and horn loadings were attempts to compensate for the lack of excursion, sensitivity and amplifier power - all obstacles that don't exist any longer. Same for horns - sticking an Edison phonograph horn on a crystal radio receiver earphone in the 1920's let other people listen. Sticking a horn on a compression driver let 20 watts fill a movie theater. The horns let the otherwise impossible happen. Would they have been applied to domestic listening for so long if they hadn't been necessary at the outset? I'm

betting not. Not that they don't have their applications – there's no other effective way to get to the back seats in your local stadium. But that isn't about fidelity of music reproduction. Paul Klipsch built his horn to complement his 2 watt amp. I know this because I heard it from his own lips in 1983. Don't get me wrong – I love Klipschorns, but they're not the best I've ever heard in terms of clarity and coloration. And Paul worked on them for 50 years to improve their tonal balance. Would he have started with a horn if he didn't need it to overcome other obstacles? I don't know, but that wouldn't be very effective engineering, and he was the consummate engineer. It's something worth thinking about anyway [I'm sure wasting enough time on it!)] Charlie

Subject: So how does one do this?

Posted by [Dean Kukral](#) on Sun, 11 Jul 2004 15:36:38 GMT

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I don't think that I have ever heard an open baffle speaker before. I would like to try one just to "see" what it sounds like. :) I have a nice horn tweeter, a JBL 2012, and an active crossover at 1600Hz. Can I just mount the 2012 onto a hole in a board and listen to it? How big does the board have to be to count as a "baffle?" Is the point of the baffle (or, what is the point of the baffle?) to separate the rear waves from the front? And, how does this differ from an infinite baffle sonically, i.e. if a little is good why not a lot - mount the speaker in the wall? Maybe if the sound is "thin," it is the bass you are missing. (?)

Subject: Pictures Posted

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 16:25:00 GMT

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Yeah, I'm going out this afternoon to buy a new camera. <http://wun.smellthecolors.com/elephantgraveyard.htm> <http://wun.smellthecolors.com/currentopenbaffle.htm>

Subject: Re: So how does one do this?

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 16:36:20 GMT

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Hi Dean! Check out the Linkwitz web site - he pretty much covers the waterfront. For sizing a baffle, you could use "The Edge" <http://www.tolvan.com/edge/> An essential part of the concept is that you're not attenuating the backwave (dipole operation), so while putting a horn driver in a baffle

helps support the lower end, it's not really what they talk about when they talk "open baffle". Yes, you're separating the rear from the front waves, but you still want to take advantage of the rear wave which you can't do with an infinite baffle (wall). I don't think it's a lack of bass (at least I don't think so right now). Drum solos on Wilson Audio's "S'wonderful Jazz" sound pretty "right".

Subject: www.linkwitzlab.com

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 16:38:21 GMT

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I dunno what happened with all that stuff.

Subject: Re: It's so hard to communicate this stuff in writing....

Posted by [Manualblock](#) on Sun, 11 Jul 2004 17:42:46 GMT

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Definatly a worthwhile avenue to explore. The older drivers we used actually were pretty stiff, JBL d130's and Altec woofers. That of course is required for decent results. The thrust of past experiments in my opinion was to attempt to simplify as much as possible, the xover 1st order and baffle boards as narrow as possible. Linkwitz has done his homework thats for sure but the drivers he uses are pretty pricey and his system runs into some serious money.

Subject: Oh, yeah, this is costing me serious \$\$\$\$

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 18:30:08 GMT

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Minus paying for Linkwitz's engineering, I'm spending more, including being responsible for deforesting several acres ;-} The best hobbyist advice I can give is marry a patient, saint of a woman, like I did. Don't know how I got so lucky.

Subject: BTW - the bass response

Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 18:37:48 GMT

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Just finished with the RTA and equalizer. Had to make serious cuts from 50 to 75Hz (room

modes?).Have to kick it up for the natural roll-off below 50 Hz, but its about flat to 32 Hz at the listening position with +12dB of EQ.

Subject: Re: Oh, yeah, this is costing me serious \$\$\$\$
Posted by [Wayne Parham](#) on Sun, 11 Jul 2004 20:20:59 GMT
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I'm thinking that a neat way to do this might be to put the drivers in the wall of your listening room. Remove the sheetrock, install MDF or plywood instead, apply the finish to suit, and mount the drivers and an appropriate grille. The really avant-garde will make this an exercise in blending the aesthetics and acoustics, designing in soffits and room treatments into the decor, making the grilles using fine art on thin porous membranes with the slightest rise in HF to cover the attenuation that might result.

Subject: Re: Pictures Posted
Posted by [Wayne Parham](#) on Sun, 11 Jul 2004 20:35:43 GMT
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Man, Charlie, those are great looking speakers! See my comments about the "really avant-garde" above. While not in the walls, my point was to blend beauty both in sight and sound and your system clearly does that. Magnificent!

Subject: Well, I think that's essentially a different approach
Posted by [wunhuanglo](#) on Sun, 11 Jul 2004 21:00:19 GMT
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from the the point of view that you're giving up the dipole radiation. Even though it's large, it's still a box with reflections falling back on the rear of the cone (assuming you're in one 16" wide chase, and it's only 3-1/2" deep).It might be closer to what I'm trying to do to just let the rear of the drivers radiate into the back yard - 1/2 the midrange energy available, but avoiding the influence on the rear of the cone.Or then again, maybe not....

Subject: Re: Well, I think that's essentially a different approach
Posted by [Manualblock](#) on Sun, 11 Jul 2004 22:08:48 GMT
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Or you could mount it into the Levee and point it east.(New Orleans is east of the river right?)

Subject: East, south, there's no such thing here

Posted by [wunhuanglo](#) on Mon, 12 Jul 2004 01:44:53 GMT

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I grew up and went to school in Boston. People always complain about getting lost in Boston because the streets are mostly paved-over colonial cow paths - twists, turns, no layout at all. But New Orleans does them one better - they abandon the compass too. The city is on the east bank, except that the east bank is north of the river. The river runs west to east here. So guess where the West Bank (a defined area of New Orleans) is? Well, that one they made easy - it's south of the river. I actually live not in New Orleans, but on the Northshore - of the lake that borders New Orleans to the north, on the east bank. Get it?

Subject: Wayne, you're way too kind <nt>

Posted by [wunhuanglo](#) on Mon, 12 Jul 2004 01:46:27 GMT

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Subject: Re: Well, I think that's essentially a different approach

Posted by [Wayne Parham](#) on Mon, 12 Jul 2004 03:02:50 GMT

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Yeah, Charlie, you're right. One approach is a dipole and the other is an infinite baffle. I suppose technically the way you're using them is a finite baffle and the infinite baffle is, well, infinite. But I wasn't focused on the radiation pattern and instead on the aspects of system tuning and Q, which is similar between infinite baffle and open baffle.

Subject: Re: East, south, there's no such thing here

Posted by [Manualblock](#) on Mon, 12 Jul 2004 11:55:06 GMT

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I'll need more time to ponder.
