Subject: Music room floor and wall treatment
Posted by Shane on Mon, 04 May 2009 01:21:16 GMT
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In the home we will hopefully close on towards the end of this month I will have a room for just my hi-fi/guitar gear. I've attached a pic of one end of the room taken from the wall across from the staircase entry. It is approximately 12x19. The wall I'm taking the pic from is straight from the floor to the highest point in the room, not angled like the other side. The floor is a hideous tile that needs to be dealt with. The hi-fi gear will go at the end without the bar (the bar is inset into the wall, with the "short wall" on the other side of the staircase being even with the front of the bar if that makes sense?). I plan to put a small loveseat with a short back for a listening "chair" in the room.Any ideas of wall treatments to use/avoid and floor treatments to use/avoid?I know the room is an odd shape on one side with the angled ceiling, but I think it will work fine when everything is set up because it will be fairly nearfield at 10 feet or so distance. If not I'll get a decent EQ to deal with the room shape.

Subject: 2nd pic
Posted by Shane on Mon, 04 May 2009 01:26:20 GMT
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Here's a pic of the other end of the room where the gear will go.The ugly-a$$ mural is history and will be replaced with the piece in the link in a 30"x40" (not including frame--so about 36x48 total).
Beatles

Subject: Re: 2nd pic
Posted by Wayne Parham on Mon, 04 May 2009 17:05:58 GMT
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Carpeting works wonders for the floor, in my opinon. The pad and the carpet do a pretty good job of reducing HF floor reflection.How does the room sound when you clap your hands? Walk around the room and listen for ringing spots. Sometimes those angled ceilings are really bad, other times not. My last home living room had a gabled ceiling and most of the room sounded fine but there were two places where celing slap was bad. Fortunately those weren't desirable listening spots anyway.If it's going to be a dedicated listening room, you could always add absorbent wedges to the walls. If you don't want it to look so much like a studio, maybe bookshelves as diffusors would be better. I find those kinds of decisions are sort of made for me. I have to work with the room, as they always serve as both listening rooms and living spaces.For the bass end of the deal, maybe add a couple subs if the room modes make too much boom or

suck out in spots. The multisub approach really works well. Some rooms don't need it as much as others.

Subject: treatments
Posted by Shane on Mon, 04 May 2009 17:25:15 GMT
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Thanks Wayne.This will be a dedicated listening room. This was part of the requirement for any house we got--that there would be an extra bedroom, room, officespace for my stereo and guitar equipment. My guitar amps and such will be along the "back" wall by the door, with the listening spot in front of that. The room is very hollow sounding being just a vinyl tile floor and sheetrock.I was thinking in the interim to get a good sized floor rug to put down between the chair and the speakers.There will be some artwork on the walls--mainly to inspire the guitarist in me. I thought about adding some flat panels,say 2' x 4' that have cloth covered batting, as needed to reflections.

Subject: Re: treatments
Posted by Wayne Parham on Mon, 04 May 2009 19:47:39 GMT
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I would definitely install wall-to-wall carpeting with a nice thick pad underneath. I'd put thick wedges on the angled part of the ceiling, possibly some on the rest of the ceiling too. It would probably also be good to put some wedges on the walls beside and behind the speakers. The opposing walls could be left more open, possibly that where you could put artwork and shelves. Might do a few tiles of wedges and experiment, find what sounds best.You don't necessarily have to entirely cover a boundary surface, although the floor and angled part of the ceiling probably should be. The other surfaces may have partial covering. If you toe-in your speakers like I do, I'd want the adjacent sides absorbent, which would be beside and behind the speakers. That just helps reduce early reflections, something the directional nature of the speakers already does but the absorbent room treatments go further in the right direction. The reflection from opposing walls tends to give an impression of spaciousness so I wouldn't want those walls to be overly deadened. Experiment to find what sounds best.Would you be opposed to using this stuff?
 Sound Absorbent Foam (wedges, pyramids and corners)

Subject: Foam
Posted by Shane on Mon, 04 May 2009 20:06:18 GMT
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Those are pretty cool, and you can get them in colors as well. Might be worth looking at when I

get everything set up.Carpet may have to wait a bit as we need to change the carpet in the dining room out to some wood or tile. So a large rug will have to do for now.What about some cylindrical DIY bass traps in the corners?

Subject: Re: Foam
Posted by Wayne Parham on Mon, 04 May 2009 20:38:55 GMT
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I understand on the rug, but keep it in mind that wall-to-wall carpet with padding is much more absorbent than a throw rug. Throw rugs do almost nothing. So consider that as you move forward.About bass traps, I have not compared measurements with panel dampers, nor have I seen anyone else do them. I'd like to, it would be an interesting study. But my hunch is that a cylindrical damper would not be nearly as effective as a large panel damper. A panel absorber both has the surface area and the ability to move, taking energy from a fairly wide band at LF. That's exactly what you want for damping.My hunch is that tube traps are much more frequency and position sensitive, and that would make them much less useful. They would tend to provide the most absorption at their resonant frequency, and very little at other frequencies above and below. So that tells me that probably a comparitive study would show much more effective damping from panels. But even without a comparitive study, I know panel dampers work at LF. So the question for me becomes, can a tube trap be made that is as effective. Without answering that question, I'd stick with what I know will work, and that's false wall style panel dampers.The thing is, if you were in a basement or somewhere with rigid walls all the way around, I'd be looking at that more seriously. But framed drywall rooms provide a pretty fair amount of LF damping already. They are pretty lossy because the walls have some give. So I wouldn't expect huge modal problem and if you wanted to go to the next level, I'd probably install multisubs before I'd look at bass traps or panel dampers.

Subject: A useful treatment
Posted by Skip_Pack on Tue, 05 May 2009 19:29:31 GMT
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For sidewall (or any wall) reflections is using curtain rods to hanga relatively thin rug a few inches from the wall in question. Ikeamakes an inexpensive mounting system that's reasonably attractive. I'llsee if I can get the name from their catalog.I used this in our Living room while we were in Houston. It had theworst slap echo I've ever heard. One rug on each side did a great job.The upside is that a good looking rug is a decorative element. Youdon't have to scheme to camouflage the treatment while not compromising its effectiveness.I suspect that you might get a little more attenuation due to the kinetic effect of pressure waves moving the rug, however slightly,at the lower frequncies. Just a hunch.Skip

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Subject: Re: A useful treatment
Posted by Wayne Parham on Tue, 05 May 2009 20:57:20 GMT
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That's a great idea, Skip. Curtains spaced away from the wall do a pretty good job of trapping midrange and treble sound, reducing reflections. So if your walls beside or behind the speakers have windows, using curtains is a good way to provide acoustic absorbtion without drawing attention. Your approach, using a heavier rug suspended a few inches away, would provide even more attenuation and possibly be more effective at lower frequency. Good idea.

Subject: IKEA URL
Posted by Skip_Pack on Tue, 05 May 2009 21:34:36 GMT
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These things are pretty plain so they don't attract attention. They use rings with clips attach that grip the rugs. If the rug is heavy,use more clips and supporting posts. I was able to make the rung hang in a slightly wavy shape rather than stretched out flat. That, too, might have helped.http://www.ikea.com/us/en/catalog/products/70169302Skip

Subject: Re: A useful treatment
Posted by Shane on Wed, 06 May 2009 02:30:44 GMT
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Thanks for the idea Skip.I'm putting all these ideas into my head so when I finally have everything in the room I'll have a good idea of where to start.