

# The Shakti Hallograph Soundfield Optimizer

Spacing out and more...

Review By Wayne Donnelly

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Arriving home after four arduous Vegas days and nights at [CES 2003](#) (foot and ear fatiguing days with Rabelaisian feasts in the evenings), it was wryly amusing to look back and realize that my most intriguing discovery of the entire show came at the very first exhibit I walked into on the opening Thursday morning. After five minutes in Dan Meinwald's

E.A.R./Townshend room listening to the \$40,000/pair Coltrane loudspeakers from Sweden's Marten Design, I was accosted by Ben Piazza, creator of the Shakti Stone. Ben ushered me into a smaller inner room containing the a pair of floorstanding speakers and some electronics-damned if I

can remember what they were-along with a couple of spindly-looking, but visually rather striking, 6-foot-tall contraptions made of what appeared to be unfinished hardwoods, which were standing behind and outside of the speakers near the rear corners.



Those towers, Ben informed me, were his latest invention: the Hallograph Soundfield Optimizers. "Let me show you what they do," he said, pointing me toward the listening catbird seat. Ben and his assistant then laid the Hallographs face-down on the floor and played an orchestral passage. It sounded pretty good for a small-room first-day tradeshow setup, but nothing special. They then stopped the music, positioned the Hallographs upright, and replayed the same track.

Whoa! As the first notes sounded, that cramped little room metamorphosed into a voluminous space. The soundfield suddenly extended at least to, if not beyond the side and back walls. Reading the expression on my face, Ben chuckled and commented, "Well, you're the fastest so far-one second." I'm pretty sure that as the show progressed, my "Oh my gosh!" elapsed time must have been equaled or bettered many times. The expansive spatial presentation was far too dramatic to be missed, whether by golden or leaden ears. Moreover, as the music continued it seemed not only bigger in scale, but also harmonically fuller-

and at once both more dynamic and more relaxed. I immediately asked Ben for a review set, and a few weeks later my Hallograph pair arrived.

## Concept, Construction And Materials

Let me paraphrase the Shakti website, at least as I understand it: Hallographs improve the system/room interface by generating "musically complementary" resonances that somehow override the audibility of reflected sounds coming from the first reflection points and other room boundaries which confuse the ear by arriving later than the direct output of the drivers. (If this explanation sounds less than crystal clear to you, join the club.) I strongly encourage reading the site for a somewhat more extensive description of how the Hallograph works--although after reading through it several times I still don't quite get it. But there is no way to misinterpret the fervent praise of numerous extremely happy Hallograph users.

The Hallographs arrived unassembled, but assembly couldn't be much easier. Four wood screws attach the base to the upright stand bar, and a single screw attaches the reflector/diffuser array, allowing it to be moved sideways. All holes are pre-drilled, and the only tool needed is a Philips-head screwdriver. The base and stand pieces are made of European birch. Ben Piazza declines to name the exotic light and dark hardwoods that make up the three wavy-shaped vertical pieces of each array, which are the key to the design--at least until his patent is granted.

On the front of the stand is an upward-pointing arrow mark that serves as a reference point for a horizontal scale on the base of the array. That feature enables precisely repeatable toe-in/out settings. The scale decal also identifies the unit as left or right channel (they are mirror-imaged). Each structure weighs only a few lbs., so it's easy to move them around.



## Zeroing In

I was not sure what results to expect, as my listening room has no rear corners. Immediately to the outside and rear of the right speaker is a short hallway. Outside the left speaker is an open dining room. Fortunately, the absence of rear corners has on balance proven to be more benefit than problem, but I had no idea whether that would hold

true with these new elements in the game. But the enclosed instruction sheet specifically discusses using the Hallographs in unconventionally shaped rooms, and thus encouraged I plunged right in.

It is much easier to dial in the Hallographs if one person sits in the sweet spot while a second person (or second and third, if you want stereo helpers) moves the Hallographs around. My listening is usually solo, the process became a bit tedious. It took two or three weeks before I decided on an optimum placement. My options were somewhat limited because the hallway behind the right speaker is too narrow to let me put the Hallograph as far to the outside as I would like. But no worries-virtually any spot behind and outside the loudspeakers produced better sound than without the Hallographs. My final placement, about a foot behind and a foot to the outside of each speaker, with the arrays aimed directly at the sweet spot, has been revelatory. (Remember, dear reader, that your best location will most likely be completely different.)

With Hallographs in place, on virtually any recording the soundscape is appropriately broader, deeper and more layered, notably taller (surprise!) and seemingly unconnected to the loudspeakers. Importantly, the scale and focus of the performances are maintained-a string quartet does not get as wide as an orchestra, and there is no 10-foot-wide solo guitar.

On naturally mic'ed recordings, the size and reverberation characteristics of the venue are rendered more precisely. I had generally found the spatial presentation in my listening room satisfactory to excellent, depending on the equipment and type of recording in play. Now, however, I am spoiled. I really do not enjoy the system if the Hallographs are not set up. Since they impede foot traffic, I set them up for each listening session. If I neglect to do that, it takes only a few seconds of listening to remind me.

Once the Hallographs are dialed in, the audibility of even small adjustments is spooky. Toeing the arrays slightly in or out alters my perception of not only the spatial, but also the tonal balance of the system. A quarter-inch of toe-in produces a slightly narrower but deeper soundscape, with a greater sense of warmth; toeing out the same distance makes the soundscape wider but shallower and more forward, as well as slightly brighter.

The spectacular sense of spaciousness didn't really surprise me, as I had heard that effect at my very first encounter with the Hallographs. But that brief CES audition did not prepare me for the myriad other improvements offered by the Hallographs. Bass gets quicker and tighter, with better pitch definition. Vocal and instrumental images typically have more dimensionality and lateral stability. Previously unnoticed low-level detail emerges, and the entire presentation takes on a more relaxed and naturally musical quality that is hard to describe, but easy to love (in my case, often deep into the night).

## Visual Acceptability

I find the Hallographs rather appealing visually, with their simplicity, warm wood tones, and the graceful undulations of the array. I suppose a silver lining to living alone is that I can put anything I want into my living room/listening lab. But even in households where décor is a higher priority, I think the Hallograph's lack of bulk and delicate, sculptural shapes may find acceptance where, say, tube traps or egg-carton-shaped wall diffusers could never make the cut. And in any case the Hallographs can be kept out of sight until needed. If possible, marking the floor position of the base with some discreet pieces of clear tape greatly facilitates that usage.

## The Credibility Factor

I *love* reviewing this kind of product—something that is unconventional and difficult to explain, but works great. I mean, fooling around with these things is *big fun*, and the audible dividends are so extraordinary that I can't imagine ever again choosing to listen to my system without them. Beyond that, it tickles me to anticipate the inevitable backlash from the "I don't find this in my college engineering/physics/whatever books so it must be a scam" crowd who relentlessly patrol audio web sites to discourage the gullible audiophile from biting on anything too original. Of course there *are* plenty of gullible audio lovers out there, and no dearth of "snake oil" products. But hey guys (they are *always* guys), the Hallographs are for real.

Now I am not a scientist or engineer, and I have never even played one on TV. But unless memory fails me, the scientific method is essentially to observe a phenomenon and then work to discover what causes it -- not to reject anything that doesn't conform to the present state of knowledge. It seems to me that too many self-appointed "debunkers" have lost sight of that principle—especially those who declare disdainfully that they have not bothered to listen to the item they are attacking.

Although I am comfortable with the concept that manipulating resonances in the listening environment can affect the sound, I am amazed at the range and degree of improvements attributable to the Hallograph. How the hell did Ben Piazza even come up with this idea? How did he get from the concept to this remarkable result? Although it would be cool to know the why and how of the Hallograph's effects, to me it's not really necessary. The music is the thing.

**Defining Value** Priced at \$999 per pair, the Hallograph could be regarded as a dubious value if judged by the cost of materials and assembly. So what? It is not so much a tweak as a major breakthrough with the potential to improve virtually any system, regardless of price. In

my opinion, the Hallograph ranks with the Bybee Quantum Purifiers as the most significant performance enhancement I have encountered in more than three decades of pursuing great audio. I am hard-pressed to think of anything else one could acquire for a grand that could rival the musical benefits of the Hallograph. What serious audiophile wouldn't want those benefits? I even find myself speculating on questions like "What would sound better, a \$2,000 system or a \$1,000 system plus Hallographs?"

The Hallographs do present a problem for this equipment reviewer. They are so effective that it would be impossible to judge accurately how other system components rate on a numerical scale. I suspect that the Hallographs could turn audio sow's ears into apparent silk purses. Consequently, I am going to have to adjust my review process to include a significant interval of evaluating equipment without the Hallographs.

This is one of the easiest recommendations I have ever made. Critics are supposed to stay objective, so I typically qualify my enthusiasms with something like "Product X is certainly worth an audition. Try it and decide for yourself if it's right for you. " That's always safe advice, and of course different listeners have differing tastes and priorities. But I gotta tell ya, a little voice inside me wants to scream, "If you don't like what the Hallographs do, you should look for a new hobby." But I'll content myself with urging any serious listener who can afford it to just do it -- and discover the glories of Ben Piazza's remarkable creation.