

Audio's Un-Winnable War

By Roger Skoff | January 15, 2015 5:00 AM

The late Harry Pearson called it "the absolute sound" and named his magazine after it. Hi-fi crazies everywhere spend amazing amounts of time and money on equipment to duplicate it, and then spend even more money buying software (records, CDs, DVDs, MP3s, tapes, downloads, etc.) in hopes of finding that one perfect recording that will allow their system finally to do its stuff and recapture for them that magic moment of creation when musicians, music and the inspired use of technology all came together for their joy and enlightenment.



What I'm talking about is, of course, live music, and the "war" that I refer to in the title of this article is the never-ending disagreement and even open conflict that occurs among music lovers, audiophiles, and outright hi-fi crazies over how it should be, and how well it actually can be reproduced.

The famous painting of the dog, Nipper, listening to a gramophone, and its accompanying slogan "His Master's Voice" (trademarked 1900) should be proof enough that the reproduction of "live-quality" sound has been the intent of recording and playback technologies all the way back to their beginnings. Since then, at every step in the development of the sonic arts and sciences, somebody -- from those who showed Nipper being fooled by his master's voice, through "Is it real or is it Memorex?" to most recently, the proponents of CDs claiming "Perfect Sound Forever" -- has claimed to offer sound recording and/or reproduction so perfect as to be indistinguishable from the real thing.

Is it really indistinguishable, though? Is it even close? Well, for one thing, it depends on who's doing the listening. Different people have not only different tastes and preferences, but also different experience and preconceptions to guide their judgment. Something that might have sounded absolutely convincing to an early 20th-century listener who had never before heard (or even known of) recorded sound could hardly be expected to fool a modern audiophile.

For another thing, in this modern age, where an ever-greater number of people have never heard music that wasn't reproduced or electronically amplified, the question of whether something sounds like live music is becoming increasingly moot: People who have never heard it have no basis for

comparison or judgment.

The result of this is that true verisimilitude is rapidly taking second place to simply what people like, and for years there has been constant controversy between fans of digital and analog; tubes and solid-state; cones and domes and planars and ribbons and bending-waves and folded horns; and cables and tweaks and subjective reviews and double-blind testing; all increasingly based on nothing more than what people like, and believe ought to be true.

For hobbyists and zealots and team-players and scientists-manqué for whom constant debate can be great fun, it is all great fun. It's the same, too, and probably even quite fulfilling, for people who see themselves as moving ever-closer to their imagined ideal of perfect sound and the perfect system to reproduce it. In reality, though, the likelihood of actually reproducing the real sound of any original musical event simply doesn't exist.

That's not to say that perfect sound reproduction isn't possible -- given sufficient time, money and effort, practically anything can be possible. What it means instead is that, to a very large degree, the original musical event will never be possible to reproduce because, among other things, there may never have been any original musical event to reproduce!

Particularly for popular music, track-at-a-time multichannel recording has been the norm for many years. There are at least three major reasons for that. One is that it's simply cheaper to record things one track at a time and then assemble them later; the fewer people playing at any one time, the less likelihood there is that one of them will make a mistake that will spoil the track for everyone and require a re-do for all. The second is that if only one section of performers is recorded at a time, and the track doesn't work later, during mastering, it's easier to re-record only that one track. The third is that recording everything separately does allow for mastering and post-production work that might not be possible at all if everything were recorded all at once.

Although the reasons can vary, the result is still the same: There is no "original" session where all of the singers and instrumentalists are performing at once, so there's no possibility of accurately reproducing it!

Even if, as in a "live" or classical music recording, it's all recorded at the same time, there's still no possible way to reproduce it exactly as you would hear it if you were at -- or even a player in -- the recording session. If it's a mono recording, it will have the possible advantage of using just a single microphone and it will be phase-perfect and position-perfect for that one microphone's physical location. The stereo effect will be lost, however, and with it the possibility of natural imaging and soundstaging. If it's a stereo recording, it will have to use either a single stereo mic, like a C24, and lose or distort timing and phase information, or it will have to use two or more separate microphones, which will be placed for maximum advantage in terms of the pickup of direct and ambient sound. However many mics are used, and however they're placed, it's certain that even the ears of the recording engineer will NOT be in the same positions as the mics are, and that -- for that reason and to that extent -- even the recording engineer will not hear the sound exactly the way it sounds to the microphones. And when, after the session, the mastering engineer gets around to creating the master recording, because he may not have been at the original session, he's going to

have to do it as he imagines it ought to sound, instead of how it actually did.

If that still doesn't convince you, consider this: If at a concert that you attend in person, the mics are on or above the stage, and you are sitting somewhere (anywhere) out in the audience, when the performance is fabulous and you buy the later-released live recording of it, you're NOT going to hear what you heard from wherever you were sitting at the concert. You'll hear what the microphones heard from where they were. And that great front-to-back depth you remember from the concert or that you hear at home on the recording? It's not real either way. With the mics either on or hanging above the stage, the maximum depth that can really be there is the vertical or angular distance from each microphone to the instruments below or surrounding it on the stage. In most cases, the front-to-back depth you hear has nothing to do with anything at all except the effects the mastering engineer will have used to make the recording appeal to you.

So what does this all mean? Simple. If there can never be any real duplication of the sound of live music, then all there can ever really be for you to buy or enjoy is what you like and what pleases you. Ultimately, measurements don't matter, specifications don't matter, the opinions of the "experts" don't matter, and the war over perfect reproduction can never be won because perfect reproduction of music that never really existed or that was recorded from a position or even multiple positions that you can never duplicate and never experience simply isn't possible.

All you can do is like it or not. For me, that's plenty.