

# Resolute Observations

BY JOHN GATSKI

I have always believed that long-term listening to audio sets the aural benchmark threshold. Short term, carefully matched A/B comparisons are good for eliminating the obvious differences, but listening is more than that. There is a sonic memory, of sorts, that your aural/brain system gets used to, but it takes time to develop.

If you record and listen to CD quality all the time, it becomes your sonic reference. If you compare CDs to cassettes, MP3s or records, it sounds even better. In perspective, CD-quality audio was for, a time, the best format and everyone got used to it. It did not, however, sound as good as the studio analog master recordings and it contained many audible artifacts such as an irritating "edge" on complex music such as horns or violins.

However, in the mid to late 1990s, higher resolution, better-sounding formats were developed, i.e. high bit rate PCM and SACD. And I believe, without a doubt, that they are audibly superior to the CD.

Over the past six months, I exclusively listened to high-resolution recordings, both prerecorded and my own, and then went back to listening to CD quality audio. The intent was to see how much difference I noticed when I went back to listening to 44.1 kHz. The sources included both prerecorded and my own recordings of acoustic guitars.

The recordings/playback list included Benchmark ADC-1 converter linked to either the TASCAM HD-P2, TASCAM DVR-1000 or Mac G5 with Lynx card. I made and listened to original guitar recordings at 96 kHz at 192 kHz, and (for later comparison). I made simultaneous 44.1 kHz recordings of the same material.

For playback of prerecorded sources (Grateful Dead, *American Beauty* [Dual Disc], Beck and Ryerson, *Alto* [SACD], Queen, *The Game* [DVD-A] Jaco Pastorius Big Band, *The Word is Out* [SACD], and many others. Using the excellent Benchmark A/D, I also recorded these pre-recordings again at 192 kHz and at 44.1 kHz, utilizing the balanced jacks from

Esoteric DV-50 universal player.

I used Ultrasonics HFI-2000 headphones and a Rogue Audio headphone amp, as well as a Pass X-350.5 amp and Legacy Focus 20/20 loudspeakers for playback monitoring. Listening sources included the DV-50, with its converters, and the Benchmark DAC-1. Some of the recordings were listened to as many as 50 times.

My notes written during the high-res listening included such descriptions as: "wide presentation of space around drum cymbals and guitar string plucks," "a lack of harshness on horns," "a distinct and separate center image," "live performance-like dynamic range" and "piano that sounds like a piano."

When I listened to the 44.1 kHz recordings of the same material, the differences were obvious. For example, in the big band recording notes, "the instruments' separation in the mixes was reduced with audible significance." The cymbal hits that stood out on their own at 192 kHz "receded into the center image." And the dynamic range reduction at 44.1 kHz produced a "who turned down the volume impression," despite the recording levels being exactly matched by simultaneous recording.

By the way, I also recording the DV-50's SACD analog outputs in 192 kHz and 44.1 kHz. The 192 kHz one-generation copy and original SACD were virtually identical. I could not identify which was which. The 44.1 kHz version, by comparison, lost about 30 percent of its detail and width, and there was a subtle smearing and melding of instruments when compared with the high-res versions

So what is my point? I have been arguing for years that high-res is better than the 44.1 kHz and, the industry ought to sort out which format to use — and use it. Yes, the sideways development of convenience storage technologies, such as MP3, and such, muddies the water — especially in terms of quality. But pros should be in the business of making the "best sounding" reference audio possible. That audio can then be utilized into whatever convenience format is desired.

John Gatski is publisher/executive editor of *Pro Audio Review*.

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