

Antique Forms, New Audiences

EQ and tuning for "Three Mo' Tenors"

By Gary Gand

As the saying goes, "everything old becomes new again." The entertainment industry (like rust) never sleeps. Antique forms are being upgraded for the 21st century audience. Chariot races = NASCAR; tap dancing = *STOMP*; wandering minstrel = John Mayer; court jester = Chris Rock.

You get the idea.

One of the oldest forms of musical

concerts is opera. The first was *Daphne*, performed in 1598 in Florence, which established the form of early 17th century Italian opera. It became so popular that by the 1800s, the wealthy royalty of the day built dedicated concert halls for these performances.

Sound familiar? The wealthy also built "sheds" to host rock 'n' roll in the late 20th century and named them after the royalty of the day (insert corporate name/sponsorship here).

Every major (and some minor) city has a resident opera company and opera house. When I was a kid, I heard Jimi Hendrix at the Civic Opera House in downtown Chicago. Now, the houses with the best acoustics, seats and decor have largely become money-losing propositions due to skyrocketing costs, lack of parking, limited seating...

So along comes a new model: the opera/arena show. Popularized by Luciano Pavarotti and his buddies Plácido Domingo and José Carreras, the "Three Tenors" have taken the opera market to new heights in popularity and ticket sales.

The shows usually consist of "greatest hits" from the big guys – Puccini and Verdi – with some newer works (from *West Side Story* or Sting) thrown in for a "middlebrow" audience. The good news is that it's bringing opera (or "popera" as I like to call it) to a non-elite stream of music lovers. No longer are subscription seats and a tux/mink/limo required to enjoy this music in live form.



Mr. Young, Mr. Dixon and Mr. Cook use a modern format, this time specifically in the form of a NEXO GEO T rig, to get their message across.

Recently, my company, Gand Concert Sound, was hired to provide sound reinforcement for "Three Mo' Tenors" – featuring veteran African-American operatic singers Thomas Young, Rodrick Dixon and Victor Trent Cook – in Chicago, with the biggest of the shows held at the UIC Pavilion, a sports/concert venue with seating for about 8,500, and, inevitably, attendant acoustic issues. We chose to go in with our NEXO GEO T line array rig. (See "Debuting A New Rig," November 2003 issue.)

Flashback: when I was a guitarist back in the early '70s, our band was on a triple-bill college show headlined by Orleans, which had a hit song titled "Dance with Me." The audience came for them. A prog rock band from Indiana called Ethos was second. They had a big PA – that's how they got on the bill. My wife was a student at the college – that's how we got on the bill.

The sound guy for Ethos had a half-track tape machine with 10 bands of sine waves in octaves. He would play it through the PA and adjust levels by ear using a Soundcraftsman 10-band graphic equalizer (an audiophile home product). It came with these neat cardboard forms that the user could cut out with scissors to "record" the EQ settings.

As Neanderthal as this seems, it worked quite well. I bought a Soundcraftsman a few months later and the rest is history. (Trivia: the guitarist in Ethos was Will Sharp, who went on to a top position at a little ol' Texas sound company called Showco.)

As much as playing the latest and hippest CD is a bit of a tradition with most of us, it's a bit like a drive-by with the car radio cranked, windows down. Sounds like a script for another *The Fast & The Furious* sequel: *The Loud & The Ludicrous*.

Nothing rattles a room (and clears your sinuses) better than a pure sine wave. It'll also let you know if anything is questionable in the loud-speaker system. After all, it's what we use to test re-cones for rubbing and bad glue jobs, so why not test a whole PA with it?

True, it doesn't make for good relations with the crew, but for that mat-

ter, neither does that click track. It's also a good way to clear a room of unnecessary talkers. (Why is it that the two guys talking to each other at the top of their lungs about last night's ball game are always standing right behind the mix platform while you're trying to EQ?)

Let's loop back to "Three Mo' Tenors" – the tour's sound mixer/designer, Joshua Switky, started mixing

in 1985, earning his soundman's wings in Western Massachusetts at the Iron Horse Music Hall in Northampton.

Interesting: I note that he's using a sine wave generator and parametric EQ to flatten out the room and the rig. The more things change, the more they stay the same. Prior to the show, I talked with him about his experiences and just how he's honed his system tuning/EQ approach.



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On Location



Sabine Power-Q to "laser guide" parametric filters (above), and the Korg guitar tuner rescued from behind a radiator that sparked a novel EQ approach.

Gary Gand: Tell us about your "childhood" in this business.

Joshua Switky: The Iron Horse booked 350 shows a year, mostly national and international acts because there are five colleges worth of audience nearby. The place hosted Shawn Colvin, Mary Chapin Carpenter and Alison Krauss long before anyone had heard of them, plus all the bluegrass and jazz greats I'd been listening to since I was

a kid: Chick Corea, McCoy Tyner, Tony Williams, John Scofield.

One night would be Bill Monroe and the next would be Bill Bruford. Heaven! I got to mix almost all the shows for four years. It was hard to leave to go touring, but that led to going out with jazz greats like Al DiMeola and Paquito D'Rivera around the world and was well worth it.

Gary: Your EQ process looks like a blend of "old - new." How did you develop it?

Joshua: The Iron Horse was a feedback factory and presented a lot of acoustic music on a tiny stage with no PA head-room, elbow room or processing, while the

audience was full of "helpful musicians" who wanted a CD-quality show. I mixed FOH and foldback from a Yamaha MC2404 and learned that real life doesn't happen on 1/3-octave ISO centers. The Iron Horse room was tuned to "D." Every "D" for five octaves went nuts. A bluegrass band drove me crazy - all those songs in "A" or "G" or "D." Tuning speakers and channels needed to be very precise.

One day, I fished out a cheap Korg guitar tuner some "folkie" had dropped behind the radiator, looked at it and realized it was a perfectly good 1/12-octave frequency analyzer. For a tone generator, I inserted a Casio CZ101 synth with a sine-wave patch up on the mixer, with the keys labeled by frequency. I could cue it up in the "cans" during a show at the first sign of a resonance and identify the problem with laser accuracy. Of course, this was before laptop analyzers became common.

Gary: Sounds like a light bulb turned on.

Joshua: I was amazed at how many sound engineers who came in didn't know their frequencies or how to tune a PA, and instead haphazardly mangle the EQ of input channels to get things to settle down. I found that if I could only get a band soundcheck, I'd tune the system. You can get a mix on the fly, but a mix can only sound as good as the PA system. Using accurate headphones as a reference, like



Joshua Switky, the man behind the sound for "Three Mo'.



the Sennheiser HD-25, is critical to getting a CD-quality mix to every seat in the house.

Gary: What do you do with that Rolls 2020 sine wave generator in your rack?

Joshua: I run it through that old Korg guitar tuner and then into the console. With a piece of tape on it, I've labeled six octaves of frequencies as a visual reference. So I sweep with the Rolls tone generator, park it where I hear a lump, switch my Sabine Power-Q to "auto-notch" to laser guide a parametric filter to the exact center of the lump. Then I play a handful of CDs, walk the room and listen.

My favorite cut is Frank Zappa's "Yellow Shark," which is a live classical recording. You get to hear every instrument solo and ensemble very quickly because of his unique arrangements. I'm still using these tools to tune even though I was (Meyer) SIM-certified two years ago. With a really flat rig like the NEXO GEO T system we're going to use tonight, any more tuning is not needed. A little goes a long way.

Gary: You're using DPA headworn mics on the "Tenors"?

Joshua: They're the DPA4065 with omni (directional) elements, a Broadway standard and flat from 20 Hz to 20 kHz. The mics plug into the local sound company's wireless belt-packs, and I wear them myself at FOH and monitor. I can sing a sweep tone, EQ the mics and set the compressor thresholds right at both consoles. This is a two-hour show, so I save the performers' voices by doing 95 percent of their soundcheck before they arrive.

Gary: Looks like you're getting "the call" – thanks for your time, and have a great show.

To fill out the scene a bit more, I note that the 22-piece "Tenors" orchestra is miced from not too close, which gives much less of an "in your face" string and brass sound. This makes for much greater risk of feed-

back, which Joshua eats for lunch anyway. The few faint squeaks that appear during the show were quickly notched before any of the audience members were the wiser.

I found Joshua to mix with a deft touch, and using something called "dynamics," which I heard back in the mid '60s with one of the early non-amplified folk groups (grin). The fact that these guys sing opera means they can coast through any manifestation of pop song, and can turn up the gas

to just about blow the roof off the place with vocal gymnastics.

For more, check out their live DVD. It makes a wonderful gift for your parents: "So this is what you dropped out of law school for?" Better yet, take 'em to a show. After all, everything old... ■

Gary Gand has been designing and mixing sound for 30 years and is the owner of Gand Music & Sound in Northfield, Illinois, just north of Chicago. He can be reached at ggand@gand.com.

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