

Listen Hear)))))

By Tim Dolbear



Some Of The Industry's Best Discuss The Sonic Dissection Of Music

Consider the painting *Water Lilies* by Claude Monet.

When you stand right up close, you can see all the details of the brush strokes, individual colours, the textures and edges; yet, from across the room, you see the sum of these individual components in their full beauty. Each stroke disappears into a blend and affects the overall composition in such a way that, if we were to remove even one, the entire picture would be affected; however, from across the room, we may not be able to detect why or how something has changed – only that a change has happened.

As audio engineers, we need to listen from both places: “across the room” and “up close,” taking in the overall sound or listening “into” the audio. During editing and mixing, we tend to need to focus into individual elements, even to the point of listening to the waveform itself in order to clean up clicks and pops, mouth noises, bad edits, and other impurities that invade our works of art. The song, of course, is created and captured for enjoying “across the room.”

So how do we listen? How do we train ourselves and what trickery do we use to compose

our painting from “across the room” while still controlling each brush stroke?

In December of 2014, I was at the studio of the amazing Alan Silverman. We were having fun comparing D/A converters (Wow, I just realized I am a nerd) when, in a mix he had just received from an outside mixing engineer, I heard a bad

Pro Tools edit followed by a tiny click. I stopped playback and pointed it out to Alan. We looped the area in question and, sure enough, it was there. But while listening to this section, it became obvious that how Alan listens to music was drastically different as a mastering guru than I do as a mixing engineer.

AN INTRODUCTION TO THE MEMBERS OF THE VIRTUAL ROUNDTABLE:

- Steven Epstein, Classical Producer/Engineer, 17 Grammy Awards
- Erik Zobler, Producer/Engineer, Studio Zed, Los Angeles, CA (George Duke, Anita Baker, Whitney Houston)
 - Joe Palmaccio, Grammy-winning Mastering Engineer, The Place...For Mastering, Nashville, TN
- Bob Katz, Mastering Engineer, 3 Grammy-winning albums & several nominations, Digital Domain, Orlando, FL
 - Andy VanDette, Musician & Vinyl-Cutting Mastering Engineer, Engine Room Audio, NYC
 - Noah Mintz, Mastering Wizard, Lacquer Channel Mastering, Toronto
 - Tony Harnell, Recording Artist & Producer, Vocalist for TNT & Skid Row
 - George Seara, JUNO Award-winning Mixer & Recording Engineer, Toronto

He was enjoying the painting from across the room while I stood six inches away.

A few days of thinking about my visit with Alan and talking with my friend Joe Palmaccio helped me realize that there is a lot to the subject of how we listen and the types of listening we do in the various roles we play in the studio. It was time for a roundtable discussion with my friends who work as mastering engineers, mixing engineers, and recording artists about listening.

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Bob Katz

Professional Sound: How would you describe the way you listen? Which way do you tend to naturally gravitate to: the painting up close or from across the room? For example, I naturally listen into the sound, almost envisioning the waveform. It stems from my early years editing dialogue, where you are extremely focused on small noises.

Bob Katz: I think I have been trained for so long in the mastering field to listen to the tonalities and EQ of an overall presentation, it's probably at this point my natural inclination is to do this. Now I don't naturally listen for a vocal that's too loud or too soft, probably not unless it's

obvious. Then I will focus on it and deal with it. But as soon as a client brings it up to me, and as soon as it's dealt with, I go right back to the overall picture.

Erik Zobler: I approach listening as a mixer, focusing towards the little things. First, go for frequencies and see if there are offending frequencies to take care of, then the individual levels. I hear all the little stuff and it drives me crazy. It's like the Auto-Tune effect; once you can hear it, you can always hear it, so once you are attuned to listening like that, you can't turn it off.

Joe Palmaccio: The Monet analogy really illustrates the way many audio engineers listen. When it comes to mastering, I find the "up close" and "across the room" methods are valid and standard practice. My listening tends to start from a global point of view. I try to take in as much as I can without focusing on the individual parts that make up the whole.

Steven Epstein: In classical, we use only a few mics, so while recording, we are listening to an overall tapestry of the sound, similar to what a conductor would do. So the mix is accomplished primarily at the session with mainly the editing of the performance to be done back in the post studio. As a producer, once I get the sound appropriately balanced, my next thing is to make sure the performance adheres to the score and that all of the notes are covered correctly. At this point, I am listening very carefully, microscopically, to make

sure all is correct. Separating the details of accurate playing and hearing the piece of music as a whole requires two opposing mindsets with which the producer needs to contend.

Andy VanDette: I view from across the room with increasing focus on the smaller details, guided more with my heart than my ears. Music must elicit an emotional response. Sometimes mixes have the dynamics, builds, and fader rides in them already; sometimes I have to create them. After that, it's time to move in closer.

George Seara: I'm interested in the overall picture, so while I do shift back and forth intuitively, in focusing on specific elements within a recording, I try not to 'solo' things much in a recording or mixing situation. When a recording or mix is well balanced, you just hear the song, and that's what I'm always striving for.

PS: Tony, as a recording artist, what's your listening process?

Tony Harnell: I really try to put myself in a headspace of being an objective listener and I'm listening for the song and the mix and really try to take myself out of it. Sometimes you think you have something amazing and then pull someone else into the room and then there is something that happens. Even

if they are listening to the song without any reaction, just the fact that someone else is in the room makes you listen to the song differently.

PS: What do you do to switch from one type of listening to another? Since I am more prone to listen into the sound, or see the painting up close, sometimes I need to physically get up out of my chair and walk around the room listening to break my focus and hear the "entire picture."

SE: I'm the same. Editing is very much like factory work. Once I'm done, I get some distance from that part of the process and then listen to the entire performance. In classical, the mix is mostly, if not entirely, achieved at the time of the session. During the extensive hours in post, it's important to get the proper perspective so I take breaks, get up, and take time away from it.

TH: Recording with Skid Row, we will burn a CD and head out to the truck and all sit in it and listen. I think that's something people don't do enough of anymore. I think you should put it into your phone and put those little earbuds in and listen to it that way, on different speakers at different levels.

GS: Switching from listening to music as a whole to pinpoint-

"When I have some distance and a better perspective on the sound, I find that any EQ boost that might have been performed is either reduced or eliminated in many cases."

Steven Epstein

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ing specific elements tends to happen intuitively. The same way that you might look when someone calls your name, even quietly, it becomes instinctive.

BK: I would prefer time away just to clear my head. If you are a mastering engineer and the client comes in and wants the piano solo brought down, I will put my head into it and work on the piano solo and

"Just the fact that someone else is in the room makes you listen to a song differently."

Tony Harnell

now that's what I am focusing on. The problem with focus is the very process of focusing on something, on any one thing, exaggerates its importance. And that's the very thing that many mixing engineers suffer from, is they focus too much on a single thing. This is especially problematic when a mix engineer attends a mastering session and wants to change mix elements. It takes us completely out of the holistic mastering mindset.

EZ: I won't switch out of listening up close or into the music until all offending things are gone. To switch, I will get up

and walk around and listen to the track from the next room. That's the best way to hear the overall song, because you cannot listen to specifics from there.

JP: I need to stop the playback, go back to the beginning of the track, and then decide what detail I'm going to listen to. Each time I want to refocus on another detail, I repeat the process. This helps me thoroughly understand what I'm hearing.

Noah Mintz: It's about having an active or passive ear. If you let your brain relax and not think too hard, you can just listen to it without hearing the frequencies. Once you activate your brain, you can hone in on setting the balance of the song with EQ.

AV: I use a few different methods to hear into the music. Listening at lower levels can be a good reality check. Flipping the phase on one channel of a stereo mix and summing both channels to mono can be like a spotlight on distortions and other mix issues. I enjoy hearing projects that I am working on in two other monitoring environments: my car and my home system. It ensures that the sound travels well from system to system. My car, not

being a true professional monitoring environment, sometimes sheds an interesting light on things. Other times, it sends me on a paranoid trip and off on a wild tangent, until I hear it enough other places to know it's just a car anomaly.

PS: Do you use any mental tricks to hear different ranges in the music spectrum? Some hear in colour, and I find myself mentally picturing highs to lows by height in the room.

BK: I played the clarinet for years and when I hear a note, my fingers move to the note's position on the keys. Or I will imagine an orchestra layout. Even if I am doing hip-hop and hear low mids, I might envision the violas playing.

JP: One of the most basic ways is to listen is with my eyes closed. Oddly enough, music can be more visual once I close my eyes. If I have been listening repeatedly and start to feel like I've lost perspective, simply closing my eyes helps; my perception of what I'm hearing changes. Sometimes this is just enough to get "unstuck" if I'm feeling like I've lost my way.

NM: I like to look at an FFT spectrum while I listen to the song. It helps me see what I'm hearing. I don't use it as a guide,

rather as a visual aid to look for patterns and abnormalities.

PS: Are there any "re-freshening" tricks that you use to clear your head or reset your mind in order to listen to a track you have worked on and heard hundreds of times? For example, when I want to hear something fresh after EQing a specific element in a mix for a while, if I stop playback and speak out loud, it resets my ear's EQ.

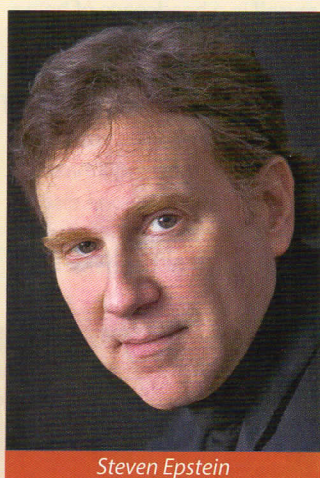
EZ: It's often dictated by the amount of time you have to work on things. But if you have to take a break, finish the next day. Listen in different systems – your car, both parked and moving, adding the extra distractions of noises. But always sleep on it.

PS: I agree. Years ago, I would mix all day and send a mix to the client and I would often get back unfavourable comments. Then I changed my mindset and now I never send out a mix the day I finish it, but rather always sleep on it and give it a last fresh listen through in the morning. This has completely changed my career, to be honest.

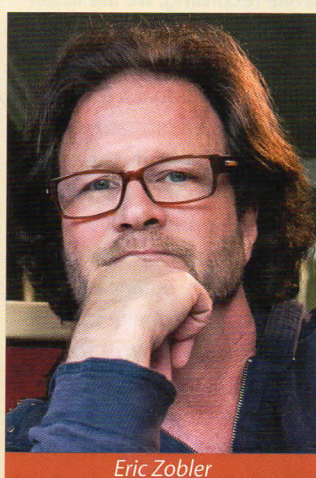
JP: I find simply stopping the listen isn't enough sometimes. When that's the case, actually



Andy VanDette



Steven Epstein



Eric Zobler



Joe Palmaccio

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leaving the room and going outside really helps. It doesn't have to be particularly quiet – just a physical change in environment has a way of resetting my ears. Even making a phone call or having a conversation can effectively null my ear.

NM: I take a break every two hours – get some water or coffee and turn off the music for 10 minutes or so.

SE: I will take some time and attend to other matters, then come back to the project and say either, "What was I thinking?" or "This fits in perfectly." Also, I will burn a CD and go to another listening location, giving me both a break and a different perspective.

TH: The only thing to do is take a break and come back fresh, as much as you want to bang away at it. Try to get back in that creative head space where you are excited about what you are hearing. As soon as you fall out of that little creative bubble, you have got to take a break, because that's what drives you in the right direction. I think staying in the creative bubble is of utmost importance.

GS: During a mixing session where we're mixing multiple songs, I might play back a bit

of a previous mix, then skip over to the current mix we're working on, similar to skipping tracks on an album, to see how things flow.

PS: Any final thoughts?

AV: I had an art teacher in school that told us to leave the fingerprints in our pottery projects. He liked that they didn't look like they were made by a machine. The first day of audio school, the professor said, "There is no such thing as a good recording; some are just less bad than others." Indeed, the ear has the ability to hear vastly more at a live show than it can from a recording, just like the naked eye can see way more than the 16.8 million colours we get in a jpeg. My quest is to put some of the live feel back into the recordings I master.

GS: Your Monet analogy is a fantastic one. Here's another example of where I try to work with things as a whole. If I'm beginning to mix a song, I do my best to have vocals in from the beginning, lead vocals especially. I don't care much for spending time on an instrumental mix, on its own, without balancing things with vocals in place. Where applicable, I do care about the bass and

bass drum and how they work together, but I'm not soloing them much, as what matters most to me is how things work together as a whole. Early on in one's engineering career, it may sound like an exercise in restraint, but overall I think it yields the most musical results. I'm a strong advocate of having a calibrated monitoring environment.

TH: I love going to mastering sessions with a real mastering engineer. The vocals would sound a thousand times better once they were mastered along with the entire picture. The mastering process to me is almost like a flower blossoming, and I think there is just not enough appreciation for real mastering in today's "do it at home and shove it out there" world.

EZ: I tend to rely on a gut reaction to certain things. Like when I'm listening to a track and I start to move to the beat, it's a good thing. That's a sign I am working in the right directions. Instead of a scientific mind, I rely on emotion. I really rely on both, but a song moving me wins.

We have all had the experience of adjusting a control on something and hearing the difference, only to find out later that the plug-in or hardware

piece was not even patched in. I remember once removing the drums in the first verse of a song I was mixing for Noah Mintz and not noticing for a while that the aux send that I froze with the short drum reverb on it was still playing in the verse. I ended up leaving it as it sounded so intriguing, but I bring this up to point out that our listening is controlled by our brains and what we actually hear can be completely overridden, added to, and manipulated by our brains. Unlike vision, smell, or touch, I find it interesting that we deal with phantom sounds. For instance, when we hear a small speaker that only goes down to 200 Hz, our brain will actually add the perception of the lower octave in the music being there.

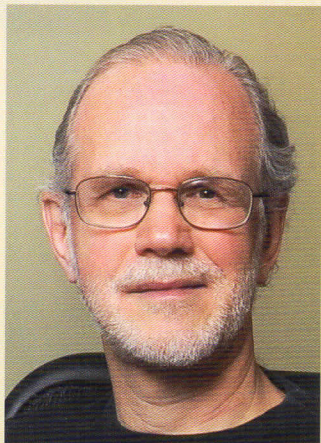
"When a recording or mix is well balanced, you just hear the song."

George Seara



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Bob Katz



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