



*By Tony SanFilippo - Guest Columnist*

Hello GJD readers. My name is Tony SanFilippo the owner and operator of [Oxide Lounge Recording](#) in Bloomington IL. I've been invited by John McGlasson to provide some insights into analog recording and what it means in today's modern world.

A bit of my history to start things off. I am a life long musician and hold a Bachelor of Music degree in performance. I became interested in recording during the late 80s and early 90s while in college, when my brother borrowed a 4-track cassette recorder from a friend and we spent Thanksgiving weekend recording an album. I eventually was offered a job at a small ADAT based studio that grew and grew. We were always adding something, mics, instruments and amps, outboard gear, monitors. Then the owner bought a 'real' studio mixing console. This made a massive difference in the sound and ease of making records. I was still unhappy with the sound of the medium though. I took it upon myself to buy a 2" 24-track analog recorder. Once I had it running correctly (a whole other article) and did some tracking on it I was in heaven. My recordings were finally starting to sound how I expected.

The point here though is not to rehash the digital and analog debate. It's been done no less than 1,324,598 times here on the internets, I will also concede that 16-bit ADAT recorders do not in any way compare to high end modern 24-bit recorders, analog to digital converters (A/D), or recording systems. I own and believe that many wonderful records have been made on various digital systems. Some of them done completely 'in the box' as we recording geeks say when referring to working almost completely in the computer, to records where only a digital capture and edit system are used but more 'old school' techniques like using a mixing console and outboard gear were employed.

What I will speak of is MY preferences and techniques and why they work in MY world. This will, I hope, spark readers to think about how they make music and how the music they love was made. Feel free to disagree with me at any moment. I'm not right, but I am also not wrong, and neither are you.

I assume the readers of GJD understand the fundamental differences of analog and digital technologies. Digital converts EVERYTHING into a series of 1s and 0s. This happens after sound is turned into an electrical impulse by the microphone, is amplified by the mic preamp and processed by anything between the mic pre and the A/D. In the analog world the signal hits the tape machine electronics and sees more processing and then magnetic particles on the tape are 're-arranged' to be able to reproduce that tone. That's right, actual pieces of oxide (see totally geeky studio name above) are moved around magnetically and then 'read' by the tape

machine. With an analog tape machine the sound is constant, whereas digital turns on and off. Though digital technologies are switching on and off so fast we don't hear a break in sound, our brains can perceive something being 'not quite right.' We have gotten used to it by now as almost everything in our lives have been converted to digital. Almost everything we read, see and hear has become digital, and we're getting more and more violent... Could this be because our brains don't quite know what's happening? Maybe, maybe not. I am however reminded of legendary equipment designer Mr. Rupert Neve, when speaking at the Tape Op Conference several years ago in his delightful British accent: "I'm still working on analog technology because digital will make you mad!"

Understand also that these analog stages, including the tape itself, alter the tone. I am well aware of this. My argument being that the altering of tone is more pleasing to the human ear and brain. Tape slightly rounds the off the transients and if "hit hard", (recorded at a high level) can compress and distort. The heads and electronics soften the high end slightly and there is what is called 'head bump' that will boost somewhere in the low frequencies, depending on the machine, electronic alignment and speed of tape travel, where in the frequency spectrum, and how much of the head bump will occur. Many believe that head bump is where the 'tape warmth' comes from. The funny thing is, these are also things our ears and brains do, but microphones do not...

I assume at this point many of you are saying "but my record will be released and listened to from a digital source." And you are of course right. I believe one way to combat this 'over digitalization' is to save it until as close to the END of the project as humanly possible. Most of the records I make are recorded onto 2" 24-track analog tape, and then mixed through an analog mixing console (sometimes adding digital effects), to a 1/4" stereo analog recorder. These tapes are brought to a mastering house that uses their tape machine to feed analog EQ and compression BEFORE ever converting to digital using quite lovely sounding A/D. There is then some judicious digital processing, but never over the top abuse. I just won't have it!

My studio does have a digital multitrack system. It however, is not a gillion track 'in the box' solution though. It is a stand-alone 24-track system used in place of, and in the same style as, the multitrack tape machine. This actually (finally!?! ) gets to the crux of the biscuit for me as a producer. The way I prefer to work and the records I often most prefer is that based on performance! I want to hear the players interact and interpret the music. I want to capture the intangibles. The things our minds can grab and latch onto even if we can't explain them. I like knowing the sometimes people had to sweat and toil to get something great. Or (as in the guitar solo on "Since I've been Loving You") that the first, completely inspired, take could not be bested.

I believe in putting performers in the hot seat. When working on tape, if someone makes a mistake we can roll the tape back and 'punch-in' to record over the mistake. They have to play it correctly, and if they don't we have to do it again. Whenever the red RECORD button is pushed the previous attempted is erased before the new one is recorded. There is no undo button. Once a player is in this frame of mind, they really 'go for it!' That's when the magic happens!!! If one is early in on a digital project and someone biffs the second chorus and the engineer chooses to copy the same bit from the previous chorus and paste it over the mistake guess

what happens to the performers? They stop trying to get it right every time, to find that magic take. They only concern themselves with getting things mostly right, or pretty close. Magic? Magic flies right out the door, and we are left with often technically perfect, totally uninspired records. This is where theory and practice are at odds. In theory perfect is best---in theory communism works...

When I use my digital system I work the same way. I punch in and fix mistakes by having the player replay the section. I re-record the song as many times as necessary to get "the take." I believe the human element is what's most important in the music that I am a part of creating. I just happen to prefer the sound when that performance goes to analog tape.

Thank you for taking the time to read my ramblings, and thank you to John and the GJD mucky mucks for giving me a little (digital-hehe) space to put fourth my views. I look forward to spending more time here with you at GJD with you all.