



Analog recording makes a comeback

Musical artists turn to old tech for vintage sound

By [Variety Staff](#)

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John Mellencamp's recent album "No Better Than This" was recorded by the singer and "O Brother, Where Art Thou" music producer T-Bone Burnett using a single vintage RCA 77DX microphone and a 50-year-old refurbished mono Ampex 601 portable tape deck.

It's easy to dismiss the record as simply an artful manifesto on Mellencamp's part -- he along with fellow music artists Prince and Stevie Nicks have all railed publicly that digital technology in general and the Internet in particular have destroyed both music and the music business. Except that Mellencamp also took what has become a recent trend to its extreme: as CD sales continue to plummet and digital downloads barely dent that fiscal void, new recordings using hoary analog technology and released on vinyl making a surprising comeback.

Vinyl's resurgence has been well documented. In 2009, 2.5 million vinyl albums were purchased, up 33% from the previous year and showing a sustainable rise from sales of 858,000 in 2006, according to Nielsen SoundScan. And new LP prices can range as high as \$30, twice what the typical new CD fetches.

But as vinyl records grow in popularity, the back-to-analog effect has been heading upstream -- more artists now choosing to record their LPs from the very first note using ancient tape machines revived by artisans with soldering irons. Taylor Swift, Jack White, the Secret Sisters, Lenny Kravitz, and Elton John and Leon Russell on their recent "Reunion" LP are among analog's fanatics; Kravitz owns one of the four-track tape decks used to record the Beatles' "Sgt. Pepper's" album at Abbey Road Studios.

Mike Spitz, owner of both ATR Services, which is refurbishing vintage analog decks, and ATR Magnetics, which is manufacturing tape for them, says business has boomed in recent months.

"Tape is now the holy grail for musicians," he says, welcomed by both industry veterans who miss the format's sine-wave warmth and by indie twentysomethings who are experiencing full bandwidth after a lifetime of listening to highly compressed MP3s.

Nathan Chapman, Swift's record producer, says the 21-year-old loves the sound of analog tape as well as the way it changes the recording process.

"Taylor's young and she has the energy to go the extra mile it takes to record in analog's more limited number of tracks," Chapman says. "A lot of older recording artists have gotten used to the convenience of digital.

"It also affects her vocals, in a good way. When recording vocals to Pro Tools there's always a tiny bit of latency, for the analog-to-digital conversion process. Recording directly to tape, there's an immediacy Taylor hears and reacts to."

A vintage multitrack deck like a Studer A827 costs \$7,000 or more, and an additional \$10,000 to refurbish, but Spitz says demand continues to increase. The cost of the media is also rising -- a reel of 2-inch tape today costs \$250 to \$300, more than double the cost a decade ago. That reflects the scarcity of the necessary raw materials like base film and oxide, says Don Morris, director of sales for RMG Intl., the Dutch company that took over the assets of BASF's

liquidated EMTEC tape manufacturing business. "But musicians are willing to pay that now, because they know how much better it sounds," he says.

A recent innovation that addresses tape cost is Clasp -- the Closed Loop Analog Signal Processor developed by Nashville-based Endless Analog. The \$10,000 unit is essentially an analog front end to a digital audio workstation like Pro Tools, imparting analog's warmth and the tonality associated with running the tape at various speeds -- slower speeds like 7.5 inches per second are used to capture the low frequencies of drums and bass while vocals and guitars sparkle at 15 and 30 ips.

Clasp's inventor, Chris Estes, says since the tape is used for processing the sound but not to store it, one reel of 2-inch tape can theoretically be used as many as 10,000 times, mitigating the high cost of the media. "The tape is constantly running, not being constantly stopped and restarted, which stresses and stretches the tape," he says.

Perry Margouleff, who owns the vintage-equipment fantasy land Pie Studios in Glen Cove, N.Y., which attracts artists like the Rolling Stones and Jimmy Page, says working in analog restores some of the talent filtering lost to the DIY ease of digital recording. "When you record in analog, the drummer has to play in time, the singer has to sing in tune, the guitar player has to nail the part, because you can't go back later and fix it with a black box," he says.

Analog-recorded music is finding its way into films. Soul singer Sharon Jones' rendition of 2009's "Up in the Air" theme track "This Land Is Your Land" was recorded in the funky and analog Daptone Records studio in Brooklyn's Bushwick section, where the basic tracks for Amy Winehouse's Grammy-winning "Rehab" were also recorded.

"The sound of the tape is a big part of the sound of the record," says Gabriel Roth, Jones' record producer and Daptone partner.

Analog's attraction lies in its ultra-high resolution capability, Spitz explains. Direct Stream Digital (DSD), the high-resolution digital disc format Sony used for its audiophile SACD format, is capable of 2.884,000 transitions per track per second, but a high-quality mastering tape contains approximately 80 million transitions per track second. "And that's just for 1/4-inch two-track tape running at 15 IPS," says Spitz. "The resolution goes up substantially with wider tracks and higher (tape) speeds."

However, don't pull your tie-dyed jeans out the closet just yet, say musicians, producers and music execs. The entire infrastructure of professional music recording has been firmly entrenched in the nonlinear digital domain for more than a decade, and even basic tape deck maintenance such as headstack alignment is no longer part of the core curricula for aspiring engineers at media academies such as Full Sail U., SAE and Berklee College of Music.

"Analog is great, but it's just economically unrealistic to think you can use it all the time or even very often," says David Frangioni, who has cut tracks for Aerosmith, Bryan Adams, Ricky Martin and Ozzy Osbourne. Aside from the cost of media and hardware, Frangioni says contemporary records need to have access to more tracks and nonlinear editing capabilities to be competitive on radio and at retail.

"These days especially, you have to balance time and budget against the cost of analog."

Michael Lloyd, a record producer and exec at Curb Records in L.A., says while the cost of tape media may not be a budget-breaker for major labels, he wonders, at a time when music sales continue to decline, if recording technology even matters to consumers. "At the end of the day, it all goes out (on CD) or MP3. I'd rather see the concentration on good songs than on the technology. We have a good digital workflow in place."

Analog recording is expensive and exotic compared to digital systems and it will remain a niche. But its renewed popularity suggests some listeners may be tired of MP3's squeezed sonics.

Contact Variety Staff at news@variety.com