

# MIX

## A Celebration Of NASHVILLE

# L

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*Building on tradition, today's recording community treasures its rich history and faces modern challenges head on.*



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Blackbird Studio,  
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*For a list of the players on this month's cover, see page 50.  
Our special in-depth Nashville section begins on page 23.*

Apple, Digidesign and Meyer Sound Present

May 20-21, 2008 @ Soundcheck Nashville

# MIX NASHVILLE

## Come join the editors of *Mix*

as we pull into Soundcheck Nashville for two full days of panels, master classes and how-to programming.

Mix Nashville features Nashville's movers and shakers, including: Tony Brown, Jeff Balding, Bob Bullock, Bill VornDick, Andrew Kautz, Chuck Ainlay, Marc Repp, Robert Scovill, Michael Wagener and many others.

Also, in conjunction with *American Songwriter* magazine, Mix Nashville includes two full days of songwriters onstage, complete with a demo derby, Q&As and Apple GarageBand demos.



## MIX NASHVILLE

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thinking sound



AT THE HEART OF THE

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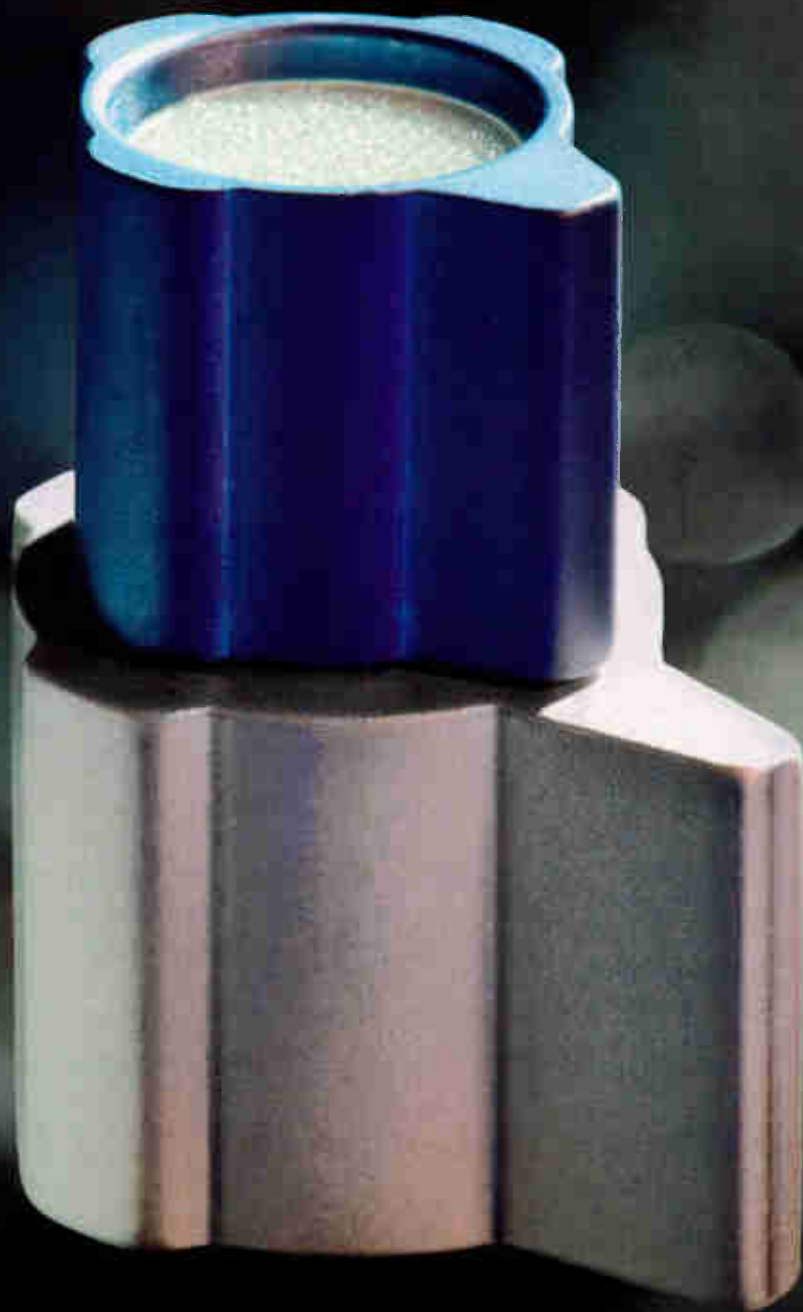
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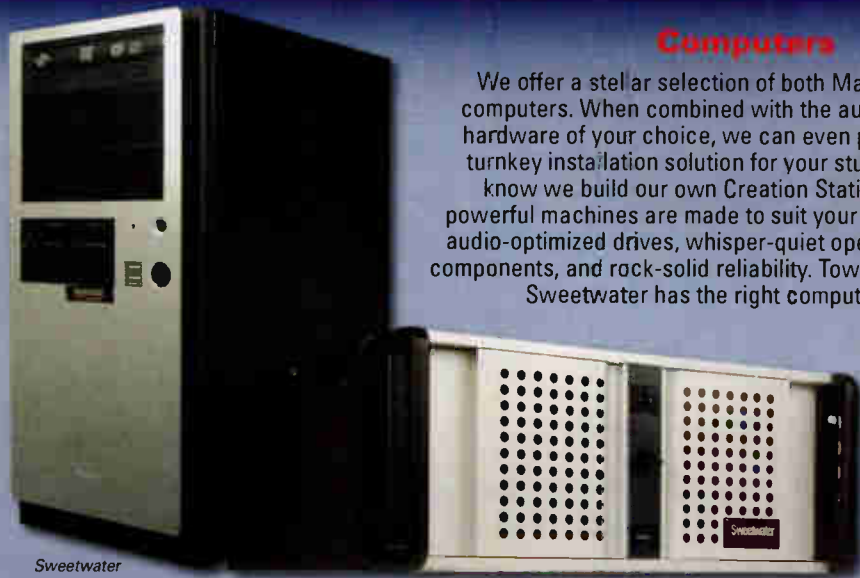
"I'm all about the gear — how it works, why it does what it does, how it compares to other products. I spend time in my own studio and a lot of time each week before and after work training with manufacturers so I'm on top of what's new. This way I can quickly narrow down my customers, needs, and make sure they get exactly the right piece of gear."

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Apple Mac Pro

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# MIX

PROFESSIONAL AUDIO AND MUSIC PRODUCTION

MAY 2008, VOLUME 32, NUMBER 6

## features

Join us as *Mix* pays an extended visit to Nashville. We'll look back at Music City's storied past, survey the local recording studio and live music scenes, learn top engineers' latest techniques for recording bluegrass instruments and much more. This special issue offers a one-of-a-kind view of the Third Coast, whether or not you'll attend our *Mix* Nashville pro audio event this month.

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**On the Cover:** Blackbird Studio owners John and Martina McBride (seated front and center) gather with fellow artists, producers and engineers as part of our Nashville tribute. Name as many as you can—then check our key (p. 50). For more on the studio, see p. 38. Photo: John Partipilo.



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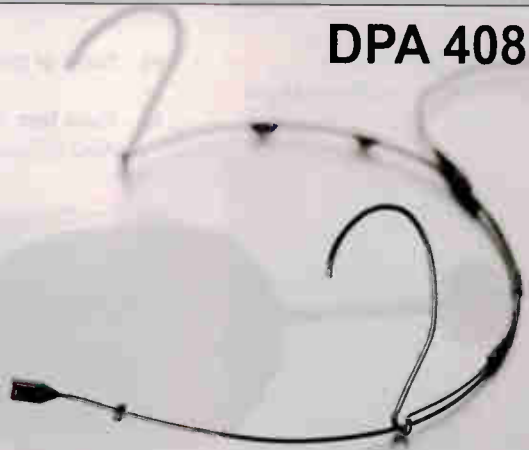
(Volume 32, Number 6) is ©2008 by Penton Media Inc., 9800 Metcalf Ave., Overland Park, KS 66212. *Mix* (ISSN 0164-9957) is published monthly with an extra issue in January. One-year (13 issues) subscription is \$35. Canada is \$40. All other international is \$50. POSTMASTER: Send address changes to *Mix*, PO Box 15605, North Hollywood, CA 91615. Periodicals Postage Paid at Shawnee Mission, KS and at additional mailing offices. This publication may not be reproduced or quoted in whole or in part by printed or electronic means without written permission of the publishers. Printed in the USA. Canadian GST #129597951; Canadian Post Publications Mail agreement No. 40612608. Canada return address: BleuChip International, P.O. Box 25542, London, ON N6C 6B2.



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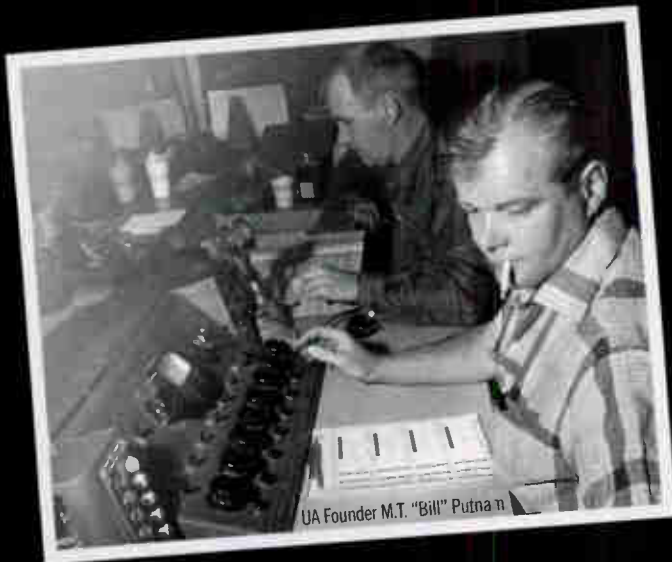


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# The Art of Analog



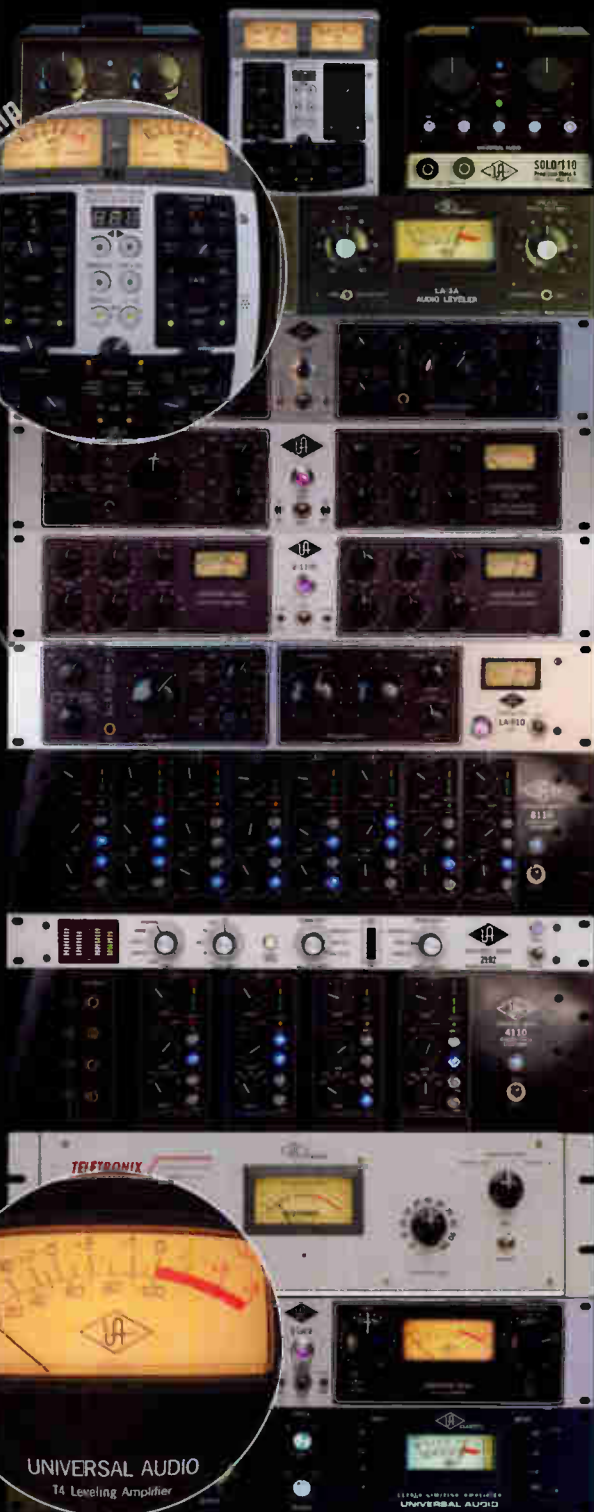
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- 1957: Bill founded United Recording, and later United Western Studios on Sunset Boulevard in Hollywood, which are now the world-famous Ocean Way and Cello.
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- 1983: Bill retired and sold UA (now UREI) to Harman International. His original products became prized collectors items for almost two decades.
- 1999: Universal Audio was revived by two of Bill's sons, Bill, Jr., and Jim Putnam continue their father's legacy with hand-assembled reissues based on Bill, Sr.'s, drawings, vintage components and design secrets from his personal diaries.
- 2000: Bill, Sr., was awarded a posthumous Technical Achievement Grammy as the "Father of Modern Recording."
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## The Strength of Nashville

There's no place in the world quite like Nashville. A city so steeped in music that its very name calls up images of singer/songwriters, honky-tonks, steel guitar, the devil in a bottle and a night at the Opry. Nashville is country. To the bone.

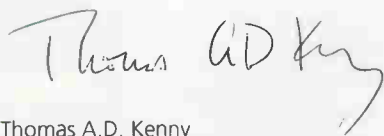
And yet, as we keep reminding ourselves here at *Mix*, Nashville is so much more. There's rock, Christian, Americana, blues, gospel, jazz and even a recent dalliance with hip-hop and dance. For nearly 100 years, the town has rolled with the fortunes of the music industry, sometimes leading and sometimes following. And it hasn't always been easy.

When we went searching for a topic for our annual special issue, we kept coming back to Nashville—the music, the town, the industry. The sense of community that permeates the local studio life feels almost out of place in this age of personal isolation and long-distance file exchange. And yet, on any given day, you'll find top studio owners and managers sharing gear with each other, or with smaller facilities, or producers and engineers visiting each other's sessions around town. It's a town where people raise each other up rather than tear each other down. A city where artists, producers, engineers and studio owners root for each other.

That's the spirit we found when we started on this issue, and that's the spirit we look to convey with this month's cover. Years ago, when we first got wind of what was going on at Blackbird Studio, the hottest facility in the country, we asked owner John McBride for a cover shot. He politely declined and kept adding more rooms. We were persistent; he relented, but only if "we could do something different."

Together, we came up with the idea of a bunch of clients and friends in a room, just how they like it in Nashville. We could easily fill a dozen more covers with the hundreds of other prominent and talented engineers, producers, artists and other fine studios in Nashville. What you see is simply a small sampling, without playing favorites, of who was in and around that day.

We're fully aware that not all is sunshine and light in Music City. Times are challenging for studio owners, as evidenced by the closure of Emerald, the uncertainty dogging Sound Kitchen and the rumors surrounding others. So Nashville editor Peter Cooper's "State of the City" feature portrays a suitably wary recording community. But projects like Emmylou Harris' *All I Intended to Be* and hot trio Lady Antebellum's debut (see "Recording Notes," page 105) remind us that great music always finds a way, and Blair Jackson's "Recording Bluegrass Instruments" feature illustrates the ways Nashville engineers have adapted new technologies to traditional music. On the live side, the industry is thriving on every level, from the city's revered performance venues to some of the biggest tours in the world. Music City has seen rough times before, and history tells us that the town, and its talent, will survive. In fact, they will lead. You can count on it.



Thomas A.D. Kenny  
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# Mix

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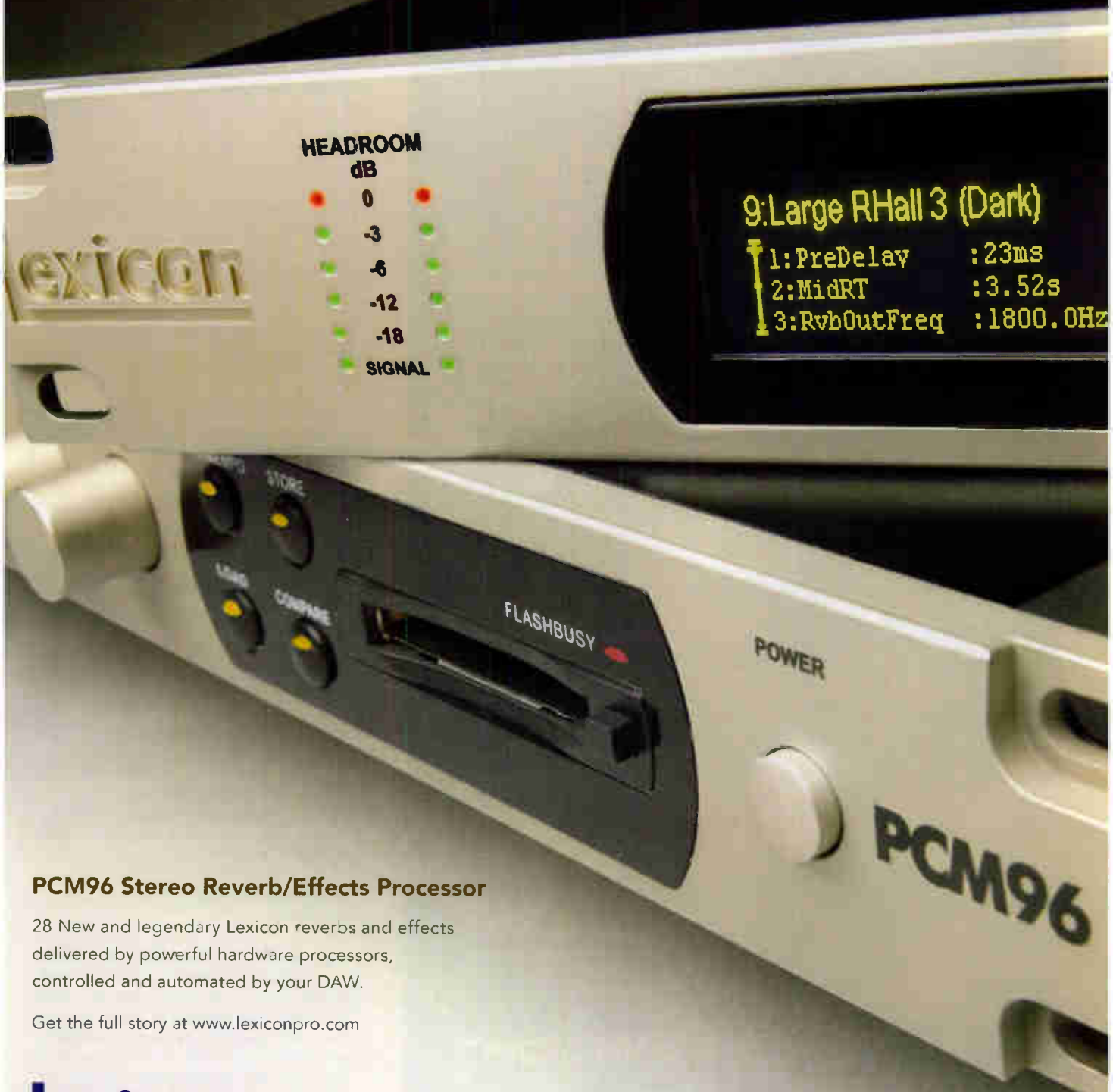
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## Letters to Mix



### TALKBACK: YOUR NASHVILLE STORIES

*In the March and April 2008 "Feedback" columns and MixLine e-newsletters, we asked readers to tell us about their most memorable Nashville sessions and about how the scene has changed over the years.*

I have lived in Nashville for 14 years now. I moved from New York City in 1994 due to the changing music scene in that city. I also lived in Los Angeles from 1989 to 1993 and didn't feel as at-home as I had hoped. So, Nashville seemed like the next place to try.

I find a lot of different music styles here. I've had the good fortune to do pop, rock and some country.

My most memorable Nashville sessions were with Matchbox Twenty. The band loved being here, and string sessions at Ocean Way Nashville Recording Studios were fantastic.

The musicians in Nashville are some of the most talented and professional I have ever had the pleasure to work with. They are the reason sessions go as fast as they do here. It's hard to find a city where so many diverse and wonderful artists live. It makes Nashville a very unique place to call home.

*David Thoener*

When cutting song demos in Nashville for my music publishing company, I routinely outline a few of my production ideas for a song with the session players before the first take. This is especially important considering that the musicians only hear a mockup of the song and review the chord chart once before we hit the Record button. But during one session at County Q Productions in April 2007, I wondered if I'd gone too far.

After discussing in meticulous detail all of my ideas for one particular song—including specific chord inversions, a walk-up, six instrumental hooks and instructions on which two

guys would play 4-bar solos and where—the seven musicians all gave me a poker face, stood up and silently walked out of the control room and into the tracking room. I looked at my watch and realized I'd burned 20 minutes of studio time just talking! The players—Dan Dugmore (pedal steel), Pat Flynn (acoustic guitar), Larry Franklin (fiddle), John Jarvis (piano), Doug Kahan (bass), James Mitchell (electric guitar) and Paul Scholton (drums)—were all seasoned pros. But still, I wondered if I'd hamstrung them with too many details instead of just letting them play.

To my amazement, and from the very first downbeat of the first take, these guys nailed every idea I'd talked about like they'd been playing the song together for years! Every idea worked like a charm, and the recording sounded like a record from the get-go.

*Michael Cooper*

*Michael Cooper Recording*

I'm a producer/engineer/mixer from the Philadelphia area, and in the past three years I've done several recordings in Nashville.

My first experience was working at Starstruck Studios on the Suzanne Gorman record for Range Records. That was an amazing experience and a remarkable facility, although very costly. The musical director on all of my Nashville sessions has been Wayne Killius. He is an amazing drummer and excellent arranger. I can't imagine doing a session without Wayne. I don't know of anywhere in the world [where] you can track an entire record in an 8-hour session. We go in and record all of the music, then I go back home to track vocals and mix.

I love Nashville! If I could find a job, I would move tomorrow.

*Kevin Wesley Williams*

*Soundmine Recording*

I witnessed my favorite session while in high school. I worked in a band that was going to make a custom CD late one night at a studio using session musicians. I knew Willie Rainsford was going to be the bandleader and piano player. He had played on Alabama's "Old Flame," which was a song we were doing, so we were all very excited. I just knew if I watched him, I could figure out the secret to this "session musician" thing.

He came in with nothing but a briefcase. He sat it on the piano bench and I looked over his shoulder as he opened it. In the briefcase was everything he needed to complete the job,

what I call the "four p's" of the old Nashville session world: a pencil, notebook pad, cassette player and a pistol.

I played bass in Nashville professionally from 1985 to 1996 and saw the scene change a lot as lots of West Coast guys moved in as country boomed in the '90s. It flooded the talent pool and changed the dynamics of the networking, making it a lot harder on local talent. When country music started to decline a bit, everybody felt the pinch.

I also hated to see the Opryland theme park disappear. It employed more than 100 musicians a day. Where else in Nashville could four French horn players work every day?

*Trevor Reddick*

Sometime in the late '70s, I was a small-town songwriter and budding recordist working at home with a 4-track Tascam reel-to-reel and a box with knobs that almost qualified as a mixer. My vast microphone collection comprised a Shure SM57. My demo was crude, but somehow contained the one fleeting ingredient I can only describe as "potential."

I went to Nashville to record a couple songs with a music publisher/producer from Kansas City to whom I had been submitting my masterpieces for a publishing deal. The songs were okay, but I wasn't the up-and-coming star to record them. He talked me into spending about \$1,500 for studio time, and my family and I went on vacation from Southwest Wisconsin to Nashville.

I actually got my \$1,500 dollars' worth because I saw firsthand how a "real" recording studio and engineer should operate. I saw the value of using "real" instruments and quality recording equipment. I have since evolved into a somewhat seasoned and thoughtful recordist with a 24/96 digital studio and good mics, and essential outboard gear.

The best lesson of all: I learned the value of the word "humble."

*Tom Bennett*

*Solo Studio*



Next month, *Mix* focuses on studio design and room acoustics. Whether it was a project studio or a full-blown, multi-room facility, what was the most artistic place in which you recorded and why? E-mail us at [mixeditorial@mixonline.com](mailto:mixeditorial@mixonline.com).



# The Breakthrough Live Mixing and Recording Solution

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- A 48-channel M-400 Mixing Console with 16 buses, channel and bus DSP, 4 stereo FX processors, 4 graphic EQs, built-in stereo recording and playback, and built-in multi-channel split port
- Up to 40 channels of limitless digital splits over Cat5e or fiber for monitor/broadcast positions and/or PC recording without any audio interfaces
- Up to 16 returns to stage over Cat5e or fiber

## Easy to Use and Easy to Learn

The V-Mixer is designed to be fast and intuitive to use for the beginner or the experienced professional. It features dedicated knobs and buttons for access to console functions, 24 touch-sensitive moving faders, onboard Help, large bright TFT LCD display and Cat5e or fiber connectivity for low cost installation and truly portable systems.

## Outstanding Sound Quality

The M-400 is a complete digital solution maintaining 24-bit audio from the stage to the splits and back to the stage. Preamps on stage provide the highest possible sound quality and intelligibility. Cat5e or fiber distribution eliminates the high frequency losses inherent in analog snakes. Onboard digital processing, channel DSP and routing eliminate any chance for buzzes from extra cabling and analog to digital conversion losses. Built-in 24-bit recording provides lossless capture of live events. The Digital Split allows lossless transmission to monitoring, recording or broadcast positions. Bus and Main LR return over Cat5e or fiber enables a complete digital signal path back to the stage.

## Powerful Digital Benefits

Instantly change from event to event with 300 Scenes for total recall of all mixer, effect and routing parameters. Password level access provides only the relevant controls for any particular type of user. PC software allows loading/saving setups as well as real-time control. Libraries provide the ability to store custom channel, patchbay and effect settings. Direct to PC recording over Cat5e enables up to 40 channels of direct digital recording.

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## MUSIKMESSE/PROLIGHT + SOUND 2008

### TOP 10 HITS FROM FRANKFURT

The Euro rose to an all-time high against the dollar, yet manufacturers were out in force and buyers were undaunted as Frankfurt's Musikmesse/Prolight + Sound show saw another banner year, with 112,000 visitors from 126 countries. Even on the heels of Winter NAMM, there were plenty of new products, including a couple of surprises. Listed alphabetically, here are our Top 10 certified hits from the show.

**ADAM's** ([www.adam-audio.com](http://www.adam-audio.com)) new A5 powered monitors are based on the company's A7 technology in a smaller footprint. Powered by two 25-watt amps, the speakers combine the company's ART folded-ribbon tweeter with a 5-inch woofer. List is \$699/pair; a matching Sub 7 sub-woofer is \$479.

The big news was **Celemony's** ([www.celemony.com](http://www.celemony.com)) Direct Note Access. A mind-boggling app, DNA breaks a single polyphonic audio track into individual notes, editable using Melodyne parameters: pitch, timing, duration, vibrato, pitch drift, formant spectrum, volume and more. During a mobbed demo session, we watched inventor Peter Neubäcker (below-left) explode Chet Baker's signature "My Funny Valentine" into individual parts and then essentially rewrite the trumpet solo. DNA ships this fall with Melodyne Version 2.

The SD7 "concept console" from **DiGiCo** ([www.digico.org](http://www.digico.org)) is now shipping. The new digital live sound board uses the company's Stealth mixing and routing system based on Super FPGA technology, which, along with two Tiger SHARC processors, gives the SD7 eight times the processing power of a D5 Live—translating to a possible 128 simultaneous 192kHz signal paths. It offers 448 simultaneous optical, 224 MADI and 24 integral connections, as well as 128 buses, 32 matrix buses and 32 graphic EQs.

Built like a tank, **HHB's** ([www.hhb.co.uk](http://www.hhb.co.uk)) CDR-882 DualBurn pro dual-drive CD recorder supports recording on two discs simultaneously, high-speed duplication and seamless extended recording across two or more discs. Analog, AES/EBU and S/PDIF digital I/O (with onboard SRC), and internal/external clocking are standard.

**JBL** ([www.jblpro.com](http://www.jblpro.com)) expands its VerTec line array family with the JBLVT4889ADP (dual-15s, quad 8-inch mids and triple 1.5-inch HF) and the companion VT4880ADP ultralong-excursion, arrayable double-18 sub. The avail-

able DrivePack DP-3 module adds 6,000W of Crown power, dbx signal processing and optional HiQNet networking.

Happy birthday to **Neumann** ([www.neumannusa.com](http://www.neumannusa.com)), which celebrated its 80th anniversary and launched the TLM 103D—a digital version of its best-selling TLM 103 studio mic. An integrated fast peak limiter optimizes recording levels, and output options include AES-42, USB, S/PDIF and AES/EBU.

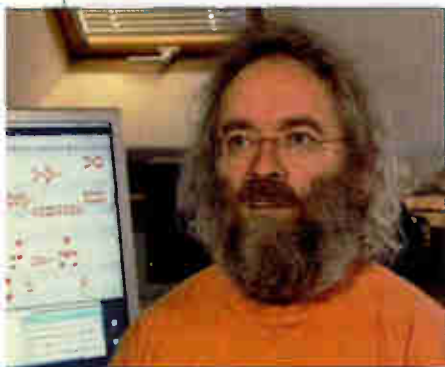
**PreSonus** ([www.presonus.com](http://www.presonus.com)) enters the live market with StudioLive 1642, a 16-channel digital mixer designed for studio or stage. It's based around a 22x18 FireWire recording/playback engine, with 16 high-XMAX mic pre's; Fat-Channel processing with 4-band EQs, compressors, limiters and gates; DSP effects; six aux buses; four subgroups; and channel strip save/recall/copy/paste. Shipments should begin in time for the summer touring season.

**SSL** ([www.solid-state-logic.com](http://www.solid-state-logic.com)) showed us Matrix (\$25,000), a small-format console integrating a 16-channel, 40-input analog line mixer with a multilayer, 16-fader DAW controller that lets users easily route outboard processors plug-in-style. Key features include onboard Total Recall supporting up to six SSL X-Racks, two separate inputs per strip, 32x16x16 insert router for up to 16 external processing devices, stereo and four mono aux sends per channel, dual-stereo mix buses with summing inserts, four stereo returns and full stereo monitoring.

**Steinberg** ([www.steinberg.net](http://www.steinberg.net)) previewed the CC121 Advanced Integration Controller, providing full Cubase 4 integration by combining the company's flexible AI Knob controller for "point-and-control" parameter adjustment with a range of dedicated controls that mirror Cubase 4 functions.

We saw **Thermionic's** ([www.thermioniculture.com](http://www.thermioniculture.com)) Fat Bustard tube mixer back at AES, but the 4U rackmount unit has been upgraded to 12 channels: four stereo pairs and four mono channels, plus bass and treble EQ, stereo-width control and the all-important "Attitude" knob. Dial in some.

Musikmesse/ProLight + Sound returns to Frankfurt from April 1-4, 2009. Meanwhile, for more show highlights, including exclusive videos, visit [www.mixonline.com/video](http://www.mixonline.com/video).



## ECKART WINTZEN, 1940-2008



Eckart Wintzen, the founder and chairman of Ex'pression College for Digital Arts (Emeryville, Calif.; [www.expression.edu](http://www.expression.edu)), passed away on March 21 of heart failure while vacationing in France.

Wintzen also founded software company B50 (later renamed Origin) in 1976. His venture-capital vehicle Ex'tent supports young entrepreneurs' initiatives that point out ways for people to act more responsibly toward each other and the planet. Wintzen also founded Ex'ovision, a company involved in the development and commercialization of a new generation of personal video communication systems. Wintzen was also closely involved with the success of Greenwheels, Ben & Jerry's and other companies.

"Eckart was a visionary who saw digital arts as green, sustainable methods of communicating ideas," said Spencer Nilsen, Ex'pression's president and creative director. "He believed that every person is creative in some way and that technology could liberate the inner artist in astonishing ways. He used to tell me that fear was the greatest enemy of innovation and that you have to shower people with love so they're fearless and confident in their ability to succeed. He will be deeply missed, but his enormous spirit is undeniable throughout every studio and colorful hallway."

## PRO AUDIO CONSOLIDATION



Within just a few days of each other, Prism Sound announced it had acquired SADIe (formerly owned by Studio Audio & Video Limited), D&M Holdings had acquired Allen & Heath Holdings Limited and Blue Microphones was bought by Transom Capital.

While SADIe continued to release upgrades and find sales here and there across the country, the company had "gone into administration" in February to relieve itself of debt. Upon hearing this news, Prism Sound directors Graham Boswell and Ian Dennis negotiated the deal, bringing the PC-based DAW manufacturer under the Prism Sound business while retaining the SADIe name. Existing customers will continue to have access to product support using the same contact info as before, while new orders can be placed with Prism Sound's sales offices. According to Dennis, "We will also be looking at ways in which SADIe and Prism Sound products can be packaged into attractive bundles. Looking further into the future, we have the financial and engineering resources to aggressively develop new products and ensure that they are effectively promoted to broadcast and pro audio customers."

Allen & Heath, meanwhile, joins D&M's Calrec and D&M Pro brands (including Denon), increasing D&M's stronghold in the live sound and DJ markets, especially with Allen & Heath's latest product release: the iLive mixing system. Allen & Heath will continue to be led by Glenn Rogers and its current management team.

Blue Microphones' founders, Skipper Wise and Martins Saulespurens (pictured, from left), will retain an ownership interest in their company and continue building microphones following the closing of the transaction with Transom Capital. According to the news release, Transom Capital will become more "hands-on," operationally, while leaving the microphone design and manufacture to Blue's team.

## DID YOU KNOW?



- Nashville became known as "Music City" because WSM radio announcer David Cobb referred to the city with that nickname in 1950 on Red Foley's NBC radio broadcast.
- In 1941, Nashville was granted the first FM broadcasting license in the U.S.
- United Records, a vinyl pressing plant in downtown Nashville, is one of only four remaining vinyl manufacturers in the nation. Operating since 1949, United has pressed millions of records for such artists as Elvis Presley, Lionel Richie, Britney Spears, Christina Aguilera and N'Sync, as well as for numerous hip-hop and reggae musicians.

—Courtesy Nashville Convention & Visitors Bureau

For more Nashville Fun Facts and information on Mix's Nashville event, visit [www.mixonline.com/ms/nashville08](http://www.mixonline.com/ms/nashville08).

## MASTERING LAB CLOSES



Shortly after celebrating its 40th anniversary, Doug Sax (above) announced that Mastering Lab Hollywood will close; its Ojai, Calif., facility remains open under the leadership of Sax, Robert Hadley, Sunny Nam and Arnie Acosta, as well as Tom Pessagno and Teresa Bustillo.

"There has actually been very little slowdown of work, but the work mirrors the changes in our industry—many more self-produced albums recorded on minimal budgets, often in home studios," Sax said. "As you know, we offer special rates for self-released albums, so while the quantity has been good, the total billing is a little less. Initially, Robert will be sharing our room with Sunny Nam, Arnie Acosta and myself. We have plenty of space for at least one more mastering room."

## ALLAIRE MAY CLOSE



Mark McKenna (seated) and chief technical engineer Ken McKim

Allaire Studios, the Shokan, N.Y., destination studio that was the home of two Neve-based rooms, appears to be closing. In March, all staffers were relieved of their positions and all remaining scheduled sessions were cancelled.

Mark McKenna, former studio manager of Allaire, commented on the abrupt end for the facility, which opened in 2001: "We had a slow winter, and we came up a little bit short of our busy season, although I canceled a tremendous amount of work the week that I left. The long-term problem is that Allaire is very specifically targeted to the music business, and increasingly the way albums are being made we kind of ran into the perfect storm of producer-and-artist home studios and failing retail. Those things combined to seal the studio's fate."

The timing is particularly puzzling given that Allaire only recently invested considerable time and expense into installing one of the most famous consoles in the world, the "AIR Montserrat" desk designed with input from Beatles producer George Martin and engineer Geoff Emerick. "Maybe somewhat less arbitrary ownership would have given the new console more time to establish itself," McKenna said, "but that's not the modus operandi of the ownership of the studio."

"When it was firing on all cylinders, Allaire was a joyous situation and the best of all worlds: You have a superior facility, a superior support staff and an unparalleled environment. Artists like the Black Crowes, Rush, My Morning Jacket and even David Bowie would attest to that. But the problem is that the business is not what it used to be, and there are not that many candidates for that type of business." —David Weiss

## SEEN AND HEARD

"Make sure that you all get your degree so you have a good education to fall back on, as you are not all going to make it in the music biz."

—Al Schmitt during a visit to McNally Smith College of Music, Minneapolis

## ON THE MOVE

**Who:** Craig "Hutch" Hutchison, Rupert Neve Designs' senior design engineer

**Main Responsibilities:** work directly with Rupert creating new products. This will be fun because we both tend to be innovative and have similar thoughts on audio quality.

**Previous Lives:**

- 1994-2008: Manley Labs chief designer
- 1983-1994: positions at Focusrite, SSL
- Electric Lady Studios chief engineer

**The best thing about working in pro audio is...**doing something creative and getting paid for doing exactly what would be an obsessive hobby otherwise.

**If I could do any other profession, it would be...**Occasionally, a mastering engineer suggests that I should join their ranks, and that idea has had its appeal. Sometimes I miss the excitement of mixing live.

**Currently in my CD changer:** The Beatles *Love*, Brian Wilson's *Smile* and I am going back and revisiting some '60s and '70s classics in my collection.

**When I'm not in the office, you can find me...**unpacking boxes in my new home in Texas and setting up my home music rig and shop—or in Thailand, which has become my second home, complete with fiancée and family and yet another design lab, but the commute is a killer!



## MORE GOLF SPONSORS!



New companies are coming onboard to support and participate in the 13th Annual Mix L.A. Open, sponsored by Guitar Center Professional. Set for

Monday, May 12, at the Malibu Country Club, this "Best Ball" tournament has a record number of sponsors that include Absolute Music, Acme Audio, CE Pickup, Design FX, Full Sail University, Harman Pro/JBL Professional, KRK, Lurssen Mastering, Maple Jam Music Group, *Mix* magazine, the P&E Wing/The Recording Academy, The Pass Studios, Record Plant, Sennheiser, Shure, Sound Design Corporation and Yamaha Corporation of America. A limited number of playing spots and sponsorships are still available. Call Karen Dunn at 925/939-6149 or visit [www.mixfoundation.org](http://www.mixfoundation.org) for information. Mix Foundation events benefit hearing conservation and audio education programs, including House Ear Institute's Sound Partners program and Sound Art.





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**Reason #6** The sound / audio quality - Rich, open, transparent. Let your ears give it a try.

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*Lynx*  
**STUDIO  
TECHNOLOGY**

To see the entire list, please go to <http://www.lynxstudio.com/10reasons>.

LISTEN...PLAY

Go beyond the printed page and log on to [www.mixonline.com](http://www.mixonline.com) to get extra photos, text and sounds on these select articles—plus much more online:



**PLAY: Mix Nashville 2008 Event**

Can't make it to the big Mix Nashville event on May 20-21? No worries. Log on to [mixonline.com/ms/nashville08](http://mixonline.com/ms/nashville08) and check out the videos, podcasts, panel updates and much more!

**READ:**

**"Recording Bluegrass Instruments"**

As usual, there was way more delightful conversation with today's top engineers on recording bluegrass music than we had room to print. Get the full story at [mixonline.com](http://mixonline.com).



**READ:**

**Extended Richard Dodd Interview**

Check out gear he loves (and gear he avoids!), his recollections on recording Wilburys and Harrison albums, and an in-depth explanation of Motone™.



**LISTEN: "Recording Notes"**

Get audio clips from Lady Antebellum, Emmylou Harris and "Coal Miner's Daughter."



CURRENT

WHERE YOU SHOULD BE

Phil Ramone will give the keynote address at the Fourth International Art of Record Production Conference, to be held at the University of Massachusetts Lowell, November 14 to 16, 2008. *Mix* editor Sarah Jones will lead a panel of top producers in a roundtable discussion. Check it out at [www.artofrecordproduction.com](http://www.artofrecordproduction.com).



GADGET CORNER



The new MEX-BT3600U in-car CD tuner from Sony Europe lets you listen to your music collection while running to the store for milk. Either plug in your USB digital music player or listen to high-quality stereo audio that can be streamed from a Bluetooth-compatible WalkMan or mobile phone through your car's speakers sans wires.

A USB port on the front panel allows direct connection with compatible digital music players, and you can quickly search your library via the 13-segment LED. The DRIVE-S CD chassis teams 24-bit D/A conversion with 52-watt x4 channels of superlow-distortion MOSFET power. Sony's DM+ (Digital Music+) codec enhancer restores high frequencies that are often lost when music files have been compressed from a CD source. Three separate pre-outs are provided.

INDUSTRY NEWS

The former founding partners of Mixopolis Audio Post-Production, mixer/sound designer **James Twomey** and sound designer/composer **Mike Levesque**, join post company **NOMADpost** and **earth2mars** (New York City)...**Paul Hugo** has been added to **Marshank Sales** (Tarzana, CA) as a partner, while **EAW** now represents the company's gear in Southern California and Southern Nevada...**News at Meyer Sound** (Berkeley, CA): **Jim Sides**, CEO at Meyer Sound Germany; **Sascha Khelifa**, managing director at Meyer Sound Germany; **Joe Caruso Jr.**, Northeast technical support; and **Dave Wiggins**, director of marketing, Europe...New senior VP of global strategy and business development at **QSC** (Costa Mesa, CA) is **Harold Yin**...**Kim Templeman-Holmes** joined **Wohler** (Hayward, CA) as VP, sales and marketing...**Scott Esterson** filled the newly created position of Western sales manager at **Genelec** (Natick, MA)...New account managers



Jim Sides

at **Guitar Center Professional** (Westlake Village, CA): **Pelar Gilyard** (Hollywood), **Rich Avrach** (Hollywood), **Mark Johnson** (Chicago), **Rylan Lessam** (Orlando, FL)...Distribution deals: **Auralex Acoustics** (Indianapolis) tapped **Dolphin Music** (Liverpool) as a UK distributor; **Furman** (Petaluma, CA) signed with **Ultimate Support Systems** (Loveland, CO); **Apogee's** (Santa Monica, CA) new additions are **Luthman Scandinavia KB** (Sweden, Finland, Denmark, Norway), **MWorks** (The Netherlands, Belgium, Luxembourg) and **Soundwave Distribution srl** (Italy); and **Axia** (Cleveland, OH) named **Total Broadcast Consultants** (Ireland) for distribution.



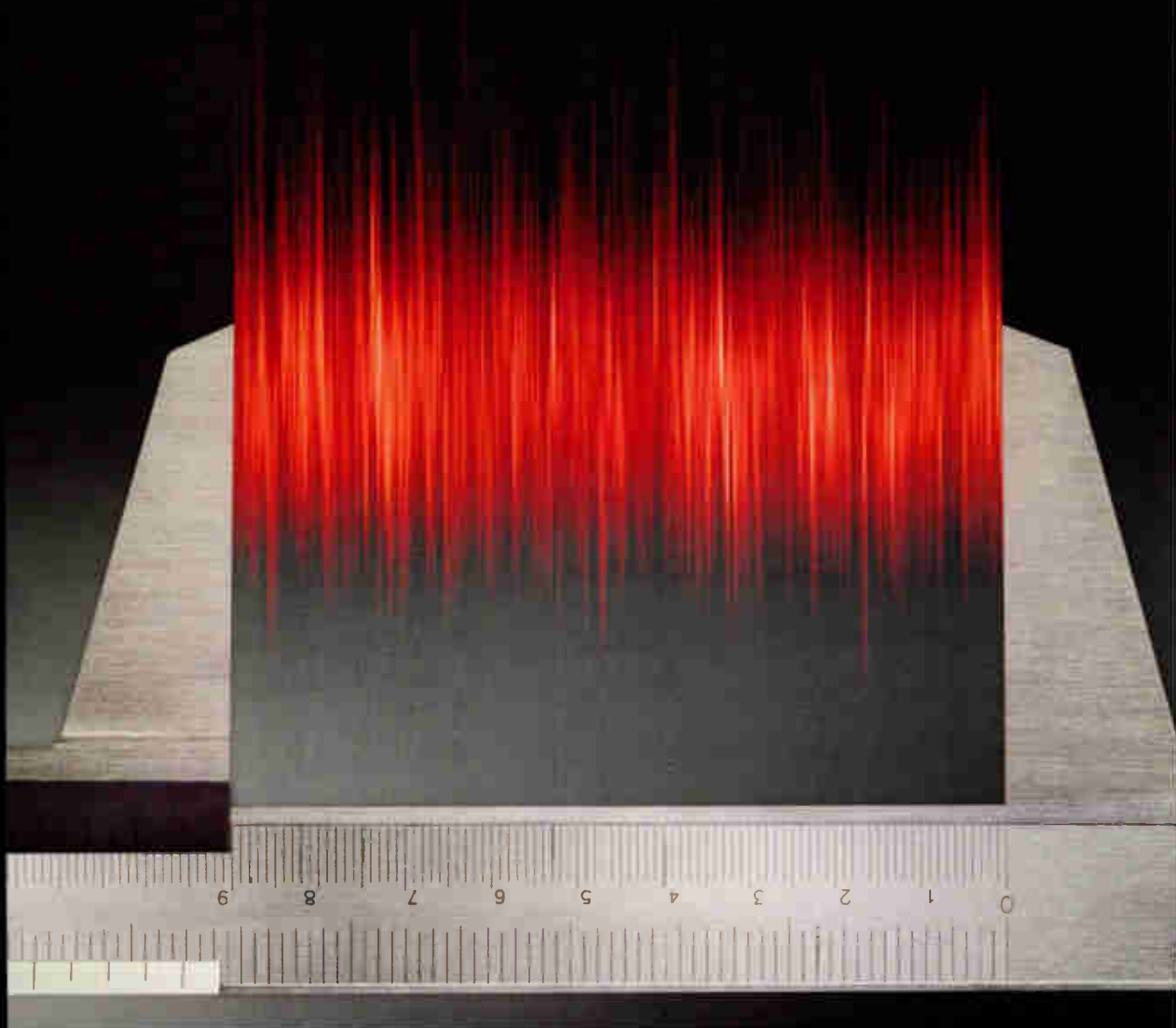
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World Radio History



# NASHVILLE NOW

By Blair Jackson

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When I came to *Mix* as an editor/writer 25 years ago this fall, I remember a feature crossing my desk a few months into my tenure that was titled something like "Nashville: More Than Just Country Music." The gist, of course, was that although Music City was known far and wide as the undisputed capital of country music, the area's studios were also churning out other styles. Over the years, we have run variations on that article, painting a similar picture of Nashville; clearly, that's what studio owners and studio managers wanted to convey. And truly, the music in Nashville is more diverse than it appears on the surface. As more and more engineers, producers and musicians from other locales have flocked to Music City in search of a saner lifestyle and a more close-knit arts community, new influences, styles and ways of working have evolved. Today, the bustling Christian music scene thrives in the area, and there are all manner of folk, rock and alternative groups who call the city "home."

But let's not kid ourselves. This is a city where the country music establishment has been headquartered for more than half a century, and much of Nashville's \$2.6 billion music industry is still devoted to country music in its multiplicity of forms. Nashville is where the amalgam of European and American folk music, Tin Pan Alley pop tunes, gospel and indigenous blues came "down from the mountain" in the early days of the record industry; the Grand Ole Opry dates back to 1925, and the rise of both radio and phonograph records ensured that the nascent country music "business" (such as it was) would reach far beyond the borders of Davidson County. David Cobb is generally credited with coining the term "Music City U.S.A." on WSM Radio in 1950; coincidentally, around the same time, Hank Williams was establishing the template for more "modern" country music *and* bluegrass was hitting its stride. The 1950s saw the rise of such immensely influential Nashville producers as Owen Bradley, Bill Sherrill and Chet Atkins, and the infusion of more "pop" elements in country music. The '60s were another Golden Age for Nashville's country musicians (and studios)—but it's a testament to the variety and vitality of the genre that the said conventions of the Nashville scene also inspired an Outlaw movement that ended up having a very positive evolutionary effect on country music. Since those days, that pattern has been repeated: Just when it seems that complacency has set in, something different comes along, whether it's a return to old-time roots music or incorporating facets of modern rock and other styles.

*Mix* has always had a special place in its heart for Nashville. We've always had writers there, of course, and for many years the annual Summer NAMM show got many of us who were based in other cities to go to Nashville and revel in the verdant beauty of Music Row, soak in the cheery bonhomie of the downtown clubs and undertake that desperate search for any place with air conditioning! For many years, we've lent support to the annual Audio Masters benefit golf tournament at Harpeth Hills, and this month we're hosting *Mix* Nashville 2008, a two-day event featuring panel discussions with studio luminaries, a songwriters' stage, Demo Derby, hands-on recording application workshops and much more.

So we thought this would be a good time to devote a special issue to Nashville, digging a little deeper into its rich history and still-dynamic recording scene. Join us as we get some perspective on both glory days and challenging times for local studios; sit down with one of the city's great characters, Cowboy Jack Clement; grab an inside view of Emmylou Harris' reunion project with producer Brian Ahern; talk to some of Nashville's finest engineers about recording bluegrass; delve into the live sound market; and plenty of other cool stuff.

# STATE OF THE CITY

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NASHVILLE

Asking some Nashville music pros about the state of the recording industry this spring is akin to asking New England Patriots fans what they thought of the last Super Bowl.

"We have never seen a number like this," says Joe Galante, who heads Nashville's wing of Sony BMG. He's referring to physical product sales during a late-March week in which country music's top 75 albums sold 330,000 total units. "In the 1990s, we'd be between 500,000 and 650,000," Galante says. "This is the lowest one-week total since SoundScan began [in 1991]. And this total is counting The Eagles and the Alison Krauss/Robert Plant duets album, and most people wouldn't consider those to be 'country.' The reality is, once you step outside the top 15 albums, this isn't a healthy business."

Well, other than that, Mrs. Lincoln, how was the play? The truth is there are plenty of other problems and challenges. Big labels, big studios and big nearly anything you can think of are in either trouble or transition, depending on whom you ask. Longtime executive and producer Tony



Mixer, producer and engineer John "Yosh" Yaszcz

**THE STUDIO  
RECORDING GAME  
HAS CHANGED,  
BUT THE MUSIC IS  
STILL AMAZING**

Brown calls Music Row's current vibe "a climate of fear," and Galante notes, "I do not think this is cyclical; I think this is systemic."

And yet, with a troublingly uncertain future and a certainly troubling present, thousands of people are making music. Nashville remains music's Third Coast, attracting players, producers, engineers, songwriters and the like from all over.

"This past year, I've worked on projects with artists ranging from Toby Keith, Loretta Lynn, Miranda Lambert, Lisa Loeb, Willie Nelson, Sheryl Crow and others," says Randy Scruggs, the revered multi-instrumentalist son of Hall-of-Famer Earl Scruggs. "If anything, I think the future will present more opportunities in general than fewer due to the continued search of outlets and creative methods of exposing an artist's music."

In music-making Nashville, the problem is that the model that worked so spectacularly in the early 1990s—when country radio prospered and Garth Brooks' Midas touch gilded Music Row—is now failing. Radio playlists are designed to keep listeners from changing channels, not to send music fans to the stores. Come to think of it, the stores aren't helping things either, as the big box retailers that have been country's sales backbone are shrinking their CD sections and demanding lower prices. And some of the large, dedicated recording rooms that boomed in the 1990s are now imperiled. Technology allows home and project studio recordings to swim in the mainstream, especially now that many listeners are hearing music through a sonic substandard that has become standard: MP3.

"We've had a lot of big studios close," says Brown, who produced George Strait's latest blockbuster, *Troubadour*. "Emerald closed down, and Ocean Way, which was built



PHOTO: BOB BRUNER © GETTY IMAGES

by Allen Sides, was bought by Belmont College for their music program and I found that I didn't enjoy working there anymore. It was more of a classroom than a studio, per se."

Still, Brown clings to the Nashville tradition of recording in the best possible room with the best possible engineer, and of keeping the sound as good as possible for as long as possible. It's going to get squeezed into an MP3 eventually,



Broadcast engineer King Williams at the Grand Ole Opry

but there'll be a lot of squeezing to do.

"I'm working on a project now for Lee Ann Womack, and the engineer, who is a dear friend of mine, said, 'What should I charge you on this? Do you have a low budget?' And I said, 'No, she's a Platinum act. Charge me your top dollar, the same thing you would charge George Strait. I want to pay you what you deserve so you don't leave town.' I really like supporting the studios and the musicians here. Let's keep this thing running because I really love going into a great studio with all the latest gear, and having room for a 9-piece rhythm section. I don't want to cut in my bedroom, I'm sorry."

In truth—and, again, because of those glorious, glorious 1990s—Brown's bedroom is a lot larger than many of Nashville's successful small studios. With Pro Tools as a standard, projects that don't require a lot of musicians playing together in real time happen in places like Grammy-winning engineer Brent Truitt's East Nashville studio.

"My business has been steady for a while now," says Truitt, a mandolin player who has toured with Dolly Parton, the Dixie Chicks and others. "I see a trend of more and more indie projects, and that seems to be growing each year. You can now record and mix a large project without having to own a \$200,000 console. A multi-card Pro Tools HD system with a nice selection of plug-ins is not cheap by any means, but the cost is very low in com-

parison to owning a large console and tons of outboard gear. I think you must have great mics and preamps and converters, but the console is no longer a must-have, in my humble opinion."

Some of the projects Truitt engineers fall under the American Federation of Musicians (AFM) union's definition of Limited Pressing recordings, which are independent albums of which fewer than 10,000 copies are produced. AFM Local 257 (the Nashville chapter) now designates on-the-card sessions as Master, Low-Budget Master or Limited Pressing because the recording environment has changed significantly since the days when most professional sessions were underwritten by majors and recorded by musicians who often made double- and triple-scale.

"Despite the overall slowdown in the global music industry, the total of union recording work that came through AFM Local 257 has been slightly up in the past two years, coming in at just over \$15 million in 2007, which all things considered is a remarkable achievement," says Dave Pomeroy, a session musician, songwriter, artist, record label owner, union officer and president of the Recording Musicians

**I like supporting  
the studios and the  
musicians here.  
I don't want to cut  
in my bedroom.**  
—Tony Brown

Association's Nashville chapter. "Limited Pressing sessions are up significantly, while Master and Low-Budget Master recordings are slightly down. In other words, there is more work for less money keeping our totals up. But at this point, union recording in Nashville is more than holding its own in an era when 'on-the-card' recording is less prevalent across the country. There are more players doing file-based overdubs in home studios, often for clients from out of town who never even make the trek to Nashville."

As Frank Conway of Audio One (a company that designs, wires, installs and outfits studios) notes, shrinking recording budgets are at the core of many problems. But the need to work in different ways



*Fred Paragano of Paragon Studios touts business diversity as key to success.*

has opened up plenty of opportunities for players, engineers and companies that are adaptable.

"As a leading vender of the equipment [the large studios] use, we are really pulling for them to adapt to the new business models and flourish," he says. "Producers, artists and labels must make their dollar go further in the studio. It has been great for our business because we are in a unique position to make that happen. People will continue to want to track in a professional studio environment. Our objective as a company is to help them be able to do other things—overdub, vocals and sometimes mix—in the privacy and comfort of their own home."

Janet Leese is the studio manager at Starstruck Studios, a massive, multipurpose facility that has been home to master recordings by Reba McEntire, Vince Gill, Faith Hill and numerous other country A-listers. Starstruck also has video production capabilities, and the Starstruck Entertainment umbrella (it's owned by country star McEntire) extends to other aspects of the business, as well.

"A studio alone is going to be hard to maintain at this point or in the future, but we're able to make profits in other areas," Leese notes. "A lot of these large studios are slow, or closing, but we have been really busy. And in Nashville, we have to have live, large recording spaces because we still have eight musicians in a room playing together at one time. Overdubs and even mixing can be done at home, with prime-time quality. But there's no way to go to a small home studio and do what we do

here. The drum sounds in home studios just aren't there. If you're trying to make a real record, you at least need to do the tracks in a studio."

Leese's hope is that the disappearance of some major studios (Emerald and Javelina among them) will ultimately make the ones that remain more viable and necessary. The largest Nashville studio—the 19,000-foot Sound Kitchen—has been through some harrowing financial times but now looks to be headed back into solvency. Ocean Way was bought by Belmont University, but it remains open to off-campus clients. And Blackbird's cutting-edge studios and immense, drool-inducing gear rental selection have made it a nationwide success story.

"One argument in favor of those real recording rooms is that you go there knowing you'll have the possibility of creating a different sound," says King Williams, a longtime studio engineer who is the Grand Ole Opry's broadcast engineer. "In Javelina, you could put a 75-piece orchestra in there or a six-piece band, and it was designed to sound good under different circumstances. Now you walk into a guy's home studio, and if you get great results, you're surprised. It's, 'This guy's kitchen is great for vocals? Fantastic.' Whereas at Ocean Way, you know it's going to be great for whatever you want.

"What we're talking about is the last 10 percent," Williams continues. "Especially in country, you're forced into a specific platform that has a specific homogenous sound, and unless you really break the rules, your stuff is going to sound like Pro Tools. With production budgets being low and time

being short, you throw a plug-in up, you hit a preset that's there, it sounds just like everything else you've heard and now you're competing. Go! Render it down! Ta-da! So everybody can get to 90 percent. It's rarified air when you get something beyond that, and unless it was a really happy accident, getting beyond 90 percent means it's done by professionals in a professional space."

Williams' job at the Opry finds him in a role that's reminiscent of great studio engineers of the past, such as RCA's Bill Porter, who was forced by the technology of the 1960s to mix Patsy Cline and Roy Orbison records in real time, on the fly.

"We have a great time because the Opry is kind of in-between a recording space and a live venue," he says. "We have a blast making it sound as good as we can in the moment. It's performance mixing, and it's close to the old days."

Twenty minutes south of Music Row is the heart of the contemporary Christian music industry. John Styll, who runs the Gospel Music Association, says many of the issues affecting country—corporate consolidation, online piracy, etc.—are also challenging the Christian business.

"The most irritating thing is that Christian



Sony BMG Nashville head Joe Galante

music's consumers seem to share the same lack of concern for intellectual property rights as anyone else," Styll comments. "As near as we can tell, they are downloading illegally and making copies of CDs for their friends at approximately the same rate as consumers of other genres."

Mixer, producer and engineer John

"Yosh" Yaszcz has worked on Grammy-winning productions in the contemporary Christian industry and from gospel heavies Kirk Franklin, Hezekiah Walker and others. He has happily transitioned from large studios to smaller, home-based environments.

"I have a buddy and producing partner who has this maxed-out, great studio in his home," Yaszcz says. "I am able to work there regularly, and it doesn't compromise what I do and essentially deliver to the record company. It also gives the record company a break on studio costs. For me, as a working engineer on projects with shrinking budgets, having his studio down the street from my house is a true blessing. I am able to pick my kids up from school and go back to work."

Yaszcz says his three decades in recording have made him into something of an audio consultant. "The artist and/or producer know the direction they want to go in, but they make some major mistakes in getting there, and I have to come in and figure out a way to clean up the mess and get them to their final destination without being caught in the act of making a bad record," he says with a laugh. "Staying in touch with changing technology but remembering what is useful from the past makes for the best recordings."

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I don't think that aspect will ever change: It's been that way ever since I started."

While Nashville is usually linked with the country and Christian industries, Fred Paragano of Paragon Studios has found plenty of profitable work outside of those realms. When building Paragon five years ago, Paragano sought to accommodate changing technologies and changing business models. Figuring that music projects alone would not support the business, Paragano branched into post-production sound services for film, broadcast television, DVD and the Internet. Paragon, the first Tennessee facility to install a capable digital film console, also offers archival services and picture editing, and Paragano leases space in his Franklin, Tenn., building to tenants.

"Just like the labels that aren't willing to change their old business models to a new one, there are studios with that same mentality," Paragano says. "This attitude will eventually put them out of business. Only the studios that find new revenue sources outside of the 'music basket' will continue to survive.

"It has been a bit of a struggle to find Nashville-based talent that is actually interested in doing anything other than music,"

he continues. "I have been surprised that most editors and mixers here don't want to be involved in film or TV. They do not want to divert their attention to anything other than music. Unfortunately, it is very hard to make a living with blinders on."

In its five years, Paragon has worked with clients including Eric Clapton, Peter Gabriel, the Rolling Stones, Aretha Franklin and Kenny Chesney, and with television outlets including *Saturday Night Live*, *Dancing With the Stars* and the BBC.

"Approximately 75 percent of our work now is focused on post-production services," Paragano says. "Music alone cannot financially support us. I have now become very selective about the music projects I take personally as an engineer. I usually go into a music project knowing the rate will be less, but I selectively take it because it satisfies my creativity."

While the methods of harvesting inspiration are anything but stable in today's Nashville, creativity itself is a constant. Nashville-based acts Kenny Chesney, Tim McGraw and Rascal Flatts offer technologically innovative live shows that consistently land them in year-end ranks of top-drawing tours. Those outings typically use personnel

and equipment straight out of Nashville. Engineers and producers are working in ever-varied styles, a point underscored each time an outside-of-country act records in Nashville. In 2008, blues master Buddy Guy has been here working with producer/guitarist Tom Hambridge. Pop star Kelly Clarkson is slated to record this summer, and she'll likely be singing over at Starstruck. Tennessee-based rock band Kings of Leon has been making music at Blackbird. And then there are hundreds of other sessions, in bluegrass and Americana and R&B and pop and just about every other genre.

"The good news is that the creativity and quality of Nashville recording has never been better," says bass man Pomeroy. "Our stylistic diversity and the high level of songwriting [John Prine, Rodney Crowell, Tom T. Hall and others live and write in the area] continue to flourish even as the business of making records is going through growing pains or perhaps more accurately 'shrinking pains.' Nashville is still 'Music City, USA,' and dreams still do come true. Perhaps the dreams are a little more reality-based, but they are still meaningful and possible." ■

*Peter Cooper is Mix's Nashville editor.*

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# NASHVILLE PERSPECTIVES

COOL SESSIONS AND FOND MEMORIES FROM THE PAGES OF MIX



## Reba McEntire Gets Back to Basics

### PORTER WAGONER BREAKS THE MOLD

"The sound of 'Jolene' was pretty unique for [1973], and part of it is what Larry Londin played. Everybody thinks of him as the great Nashville drummer—well, this was one of the first things he did in Nashville. What happened on that session is I told Larry that I'd rather get a different sound than the usual snare drum and toms and all that. So we started fooling around with the drums and playing the snare with his hands instead of using brushes or sticks...and that's how the sound came about. I think back then people took more time to try to create fresh, new sounds. Now it seems like a lot of people are on automatic pilot. But Dolly and I always did a lot of planning ahead, trying to make our records a little different so they'd stand out."

(Porter Wagoner, July 1998)

"Making that drastic change from contemporary music to the more traditional country, well, it could have been a big, bad major boo-boo. Everybody thought they were doin' the right thing with me, cuttin' the contemporary stuff, because I do have a big range with my vocals. [But] I'm an honest person and when I'm doin' country music, I feel like I'm bein' honest with those people out there. When I say I don't want a lot of backup singers, or anything but a fiddle—instead of violins—on my records, that's exactly how I want it. That's what I like so much about [producer] Jimmy Bowen. He wants your records to be almost like your stage show. He sets it up so when you're facing the speakers at home, the steel guitar's on the left, the piano's on the right. So when people leave my show and go home and put on my records, it's not such a big difference, like, 'That was the girl I just got through hearin'?"

(Reba McEntire, October 1985)

### WAYLON JENNINGS ON SONGWRITING

"I wrote 'Are You Sure Hank Done It This Way?' in a car on an envelope as I was driving from my house—which is about three miles, red lights and all—to the studio and recorded it right then. A week or two later, I looked at the piece of paper that I wrote it on, and you couldn't even read one word, but I knew what it said when I looked at it in the studio.

"Or sometimes I have songs, my little jewels, that I've had around for years. One song I've always liked and I've had around for 20 years is called 'It Rains Just the Same in Missouri.' I've never recorded it, but I do know some day I'm going to."

(Waylon Jennings, November 1998)



PHOTO: FRANK O'CONNORS III

## Norbert Putnam and Joan Baez's Sing-Along Hit

"I had previously played bass on a lot of Joan Baez's albums. She would come down to Nashville every year to make a new album. Joan's sessions were a little different from the common fare, because Baez had marched with Martin Luther King and the KKK was after her. She would have death threats waiting for her at CBS when she came to town. They had armed guards posted at all of the doors.

"I remember during the Baez sessions going out into the hall and there were guys like Dave Loggins, Guy Clark, Jerry Jeff Walker, Jimmy Buffett, Mickey Newbury all sitting out

swigging beer and swapping songs. They were also hoping for a chance to hand Baez a cassette of a new song. When we got to 'The Night They Drove Old Dixie Down,' I said to Baez, 'Wouldn't it be great if we had a sing-a-long unison kind of chorus, like you would have in a concert?' She said, 'Let's try it!' So we went out into the hall, and I called in all of the hangers-on. We had about 20 people, and when all of those drunks started singing 'The night they drove old Dixie down'—which I think was the most emotional part of that record—it became magical!"

(Norbert Putnam, November 2000)





## The Voice: Patsy Cline's "Crazy"

"Her ribs had been broken, and she couldn't hold the notes out. When we were doing this, there were no overdubs. She had to do it all live, and we all had to do it all live. By that time, we had progressed to 3-track, but they wouldn't put anything in the middle. They put the band and the voice and spread everything left and right. But on this particular session, Patsy couldn't sing with the band. The 3-track allowed them to record her [later] and not lose any quality on the tape. [Selby Coffeen] was able to put her voice in the middle. We would have lost a generation if he had played it back and transferred to another tape [to add her vocal]."

(Harold Bradley, August 2003)



PHOTO: JAMES MACHIN

## The Dixie Chicks Bring Bluegrass Home

"We've always had a bluegrass feel because of Martie [Maguire] and Emily [Robison]'s instruments, but we never made an album by listening to what's on the radio. To be honest, we don't really listen much to radio, and if we did, we would want to do what other people weren't doing. We don't sound like anyone else, and that makes longevity. You don't want

to be compared to others or have them compared to you because it's bad for everyone. We planned on making strictly a bluegrass album, and when we started arranging and choosing songs, that's not where we went. We love where we went even more, and the bonus is that it turned out to be radio-friendly."

(Natalie Maynes, November 2003)

## George Jones and Merle Haggard Become "Americana"

"I honestly wish we hadn't waited so long [to record together] because it was a lot of fun being in the studio doing both albums... I think Merle feels the same way I do—we don't like the fact that mainstream radio doesn't play us but a lot of 'Americana' stations do, and we still have our crowds on the road. Traditional country fans know what real country is supposed to be, and regardless of whether or not radio wants to play us, we have people wanting to see us that much more because they don't hear us on the radio."

(George Jones, February 2007)



## ROY ORBISON FINDS HIS SOUND ON "ONLY THE LONELY"

"One day, Roy called Fred Foster and me into [RCA Studio B], and said, 'I want you to hear this song.' Here was Orbison playing acoustic guitar, singing his new song—'Only the Lonely'—and two guys over to his left were sort of mouthing the words, but you couldn't hear them. Roy finished the song, and he said, 'That's the sound I want,' and he tilted his head toward the two guys.

Fred said, 'What sound?' Roy said, 'What they're singing!' I said 'I don't hear any singing,' and Fred said, 'I don't either.' So I walked over there, and they started the tune again and these guys are literally whispering the words. I said, 'My God, how am I going to get that on tape?' So I thought about it and thought about it, and when it came time to do the session, I talked

to all the players—which consisted of strings, piano, bass, drums, acoustic guitars, electric guitar, background vocals—and I said, 'Guys, play as softly as you possibly can,' and I asked the singers to sing as loud as they possibly could while still getting across the feeling they were after. That sound on the vocals really became the Orbison trademark."

(Bill Porter, January 1996)

# RECORDING BLUEGRASS

Tradition runs deep in the bluegrass music community. At the same time, no one expects albums today to be made the way they were when Bill Monroe, Flat & Scruggs, the Stanley Brothers and the genre's other pioneers were cutting mono records direct to disk, often using just one or two microphones. These days, as with other styles, bluegrass is mostly (but not exclusively) recorded to digital workstations, with some isolation, using expensive microphones and top-quality outboard gear.

To learn more about the modern art of recording traditional bluegrass, we talked techniques and equipment with several top Nashville engineers. Gary Paczosa is perhaps best known for his award-winning work with Alison Krauss & Union Station, but his long credit lists also includes Dolly Parton, Gillian Welch, Nickel Creek (and Chris Thile), Tim O'Brien, John Prine, Darrell Scott, Yo-Yo Ma and the Dixie Chicks. Widely respected engineer/producer **Bil VornDick** has worked on projects with the likes of Jerry Douglas (for 25 years!), Béla Fleck, Mark O'Connor, the Nashville Bluegrass Band, Ralph Stanley, Doyle Lawson & Quicksilver, Del McCoury, Rhonda Vincent and Krauss. Steve Chandler has recorded nearly all of banjo great JD Crowe's albums since the late '70s, including the 2007 bluegrass Grammy nominee *Lefty's Old Guitar*. Among the many other acts he's cut, produced or mixed through the years are Keith Whitley, Hazel Dickens, the Whitstein Brothers, the Happy Goodman Family, the Osborne Brothers, Vincent and NewFound Road. Dobro and lap steel specialist **Randy Kohrs** is best known as a top session musician in Nashville, but he also produces and engineers—indeed, he did both on this year's Grammy-winning album by Jim Lauderdale, *The Bluegrass Diaries*. When Kohrs and I spoke, as a bonus he handed the phone to his frequent collaborator, engineer **Michael Latterer**, who has impressive bluegrass recording credentials of his own, including Lauderdale and Vincent.

It goes without saying that each of these fine engineers will treat every bluegrass project that comes his way uniquely. Variations in budgets, studio and equipment availability, the players involved and the instruments being recorded are all variables in the equation.

## BASIC TRACKS

"We're in the digital age now and we have more options than ever before," VornDick says, "whereas before, you'd try to record pretty much how it went down live in the studio. I've done a Jimmy Martin album in 45 minutes. They came in, stood up like they would onstage, they played, we taped it and that was it. But that doesn't happen much." [Laughs]

"Different generations always had different technology to work with," he continues. "The early guys had to record a

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BLEND OLD  
AND NEW**

whole band on two mics, and then you get to the Bluegrass Album Band and they've got reels and reels stacked high. Jerry Douglas might like his dobro part from take 17 and Tony Rice might like his guitar part from take 23, so they'd put all that stuff together—everybody's picking their favorite performances for themselves."

"I've done it both ways," Paczosa agrees. "It's great to have some isolation so you can punch in and fix things and have more control over it in general, but, for instance, on the last Darrell Scott record I did, we cut everyone live in one room, no headphones, over at George Massenburg's room at Blackbird and that's a great record. The last two Tim O'Brien records were cut over here [at Paczosa's studio] and everyone was close together, so I'm embracing the lack of isolation and the bleed. Part of that, too, is economics because we're not cutting as much in big studios; I'm cutting at home." Fortunately, budget limitations have never been a determining factor in whether a bluegrass album was successful. As Paczosa notes, "A Nickel Creek record we did cost \$25,000 to make and sold a million [copies]!"

"From the perspective of someone making records, the bluegrass scene here in Nashville is very similar to the jazz scene in New York," Latterer notes. "It's a mix of fantastic performers, small club performances, low budgets, lower sales, but at the same time, a high production standard is required to facilitate capturing an acoustic performance. Sadly, while there is a great core of young musicians and writers working with this music, there's not a ton of production talent. A lot of talented producers and engineers shy away from bluegrass for higher budgets."

Rare these days is the bluegrass project that is recorded to tape (though some are still mixed to half-inch); that's a fact of

# INSTRUMENTS

economics, too. Steinberg Nuendo probably has a stronger footing in Nashville than in any other major recording center, though Digidesign Pro Tools is definitely the top dog in this town, too, as it is in New York and L.A. Chandler notes, "Pro Tools is as good as its converters. I still like to cut on RADAR because their converters are so good—they sound so much like tape. That's JD [Crowe's] preference; he's not much of a Pro Tools guy. A lot of times when I use Pro Tools, I use RADAR converters.

"Even recording to Pro Tools or whatever, we try to stay with our same principles," he continues. "We do fine-tune things a little better in this day and age because we *can* and because the public's ear has changed in a way. There's more detail awareness. Some of that is from years and years of people hearing really well-recorded albums, but it's also from satellite radio and the fact that people have developed ears that recognize good detail. I don't like so much detail that it sounds sterile, but detail that complements the color is always nice."

A word that kept coming up in the interviews was "hybrid"—not only in terms of commonly employing vintage mics and analog processing to record to digital media (though some bluegrass recordists don't shy away from digital plug-ins—the 26-year-old Latterer says he and Kohrs like various UAD, Waves and Sonics plug-ins), but also as regards to mixing different recording techniques within a project as needed. Latterer notes that on a recent Ralph Stanley II project, Kohrs and fiddler Tim Crouch cut the bulk of the instruments on many tunes with instruments isolated and occasionally layered to conform to rough predetermined arrangements. "But we also cut about six or eight tunes with the Clinch Mountain Boys, which is Ralph Stanley's band, and that was a completely different experience. For them, we couldn't cut with a click—it was completely counterintuitive to what was going on. Nobody would even count those tunes off; I'm not kidding! There's just a banjo or a fiddle and then everybody comes in. The tracks sound great, but they sound totally different."

We asked our panel to talk about some of the microphones and preamps they like to use on traditional bluegrass instruments. (Vocals are a whole separate issue, better left to

another article.) Keeping in mind what we said earlier about different players, instruments and studios affecting these sorts of choices, here are some of their answers.



## MANDOLIN

**Paczosa:** "I stereo-mike everything, or at least I use two microphones; it's not always a true stereo configuration. On mandolin, I like to use [Neumann] KM54s that I angle in from the top and bottom. The top mic is pointed down

at the top string and the bottom mic would be pointed up more at the sound hole, six to eight inches off. The bottom mic really helps with low punch for mando chop, and the top gives you the high-end detail. I always want a fast preamp for mandolin, so I'll usually use a discrete preamp like the Millennia. I'd also use a compressor with a fast attack time and a fast release—almost the same compression and path I'd use on a snare drum. I've used the dbx 160 on mando, but lately I've gone to the Distressor.

**VornDick:** "My workhorse is a [Neumann] KM84 and I also use a Milab a lot, or an Audio-Technica 4033 or 4040. But [vintage gear dealer] Fletcher has a new microphone, a KM69, that I've been using a lot instead of the KM84 and it's really amazing—it's bright, but it's smooth. For me, the main thing with the mandolin is watching where the hand moves, making sure the mic is placed so it actually gets the instrument





Steve Chandler (right) and Doyle Lawson



Randy Kohrs



Gary Paczosa



Bil VornDick

and you don't have the masking effect of the hand going in front of the mic.

"By stereo-miking instruments, you can bring out the high mic or the low mic without having to do anything EQ-wise except highpass filters. I'll put the mics six or seven inches away to get the whole tonal overtone of the instrument. I like API or Neve preamps, and Rupert [Neve] also has a new stereo mic pre that's really stunning on mandolin called the Portico [5012]."

Kohrs: "I'll typically use a pair of [Neumann] KM184s. I'll put one at each f-hole top and bottom, pretty close together, maybe six inches apart, tilted in to capture a stereo image. I also like to use a stereo pair of Violet 'Finger' mics or, depending on the mandolin, a Royer 121 for thickness and depth. All of them are run through Forssell preamps."

Chandler: "On Dwight McCall [in JD Crowe's band], I'll put one KM84 in front, between his hand and where the neck starts and get back a couple of feet—I'll move in and listen for that right proximity. Then I'll put another mic where the lower f-hole is, almost like I'm miking his hand. There's good warmth there. I like Neve and API preamps on just about everything. I don't use an EQ on that because a mandolin will cut through anyway. I use a Sony C-30 for Ricky Skaggs."



## FIDDLE

Paczosa: "In the case of both Stuart Duncan and Alison [Krauss], they've got great-sounding fiddles, and I'll put KM54s on them, fairly close together—I'm never panning them hard-left and -right; I'm only opening them maybe two degrees from 11 o'clock to 1 o'clock. I'll use a Mastering Lab [pre] with a GML compressor. I think fiddle is by far the hardest [bluegrass] instrument to record because what's perfect for one song might not be for another—once you move to another key, it can change dramatically."

VornDick: "I don't always do stereo; it depends on whether we're going to overdub fiddle later, like we often did with Mark O'Connor. I'll use a KM64 for some people, a KM84 on others. If I'm in a situation where I'm overdubbing, I might use a [Neumann] 67 or an [AKG] C-12; go for a tube."

Kohrs: "I usually use one mic on a fiddle, eight to 10 inches away, right where the bow strikes the strings and tilted a hair toward the neck. Lauten Audio's Horizon mic or the Globe or Amethyst mic from Violet Microphones all work great on fiddle. These are run through Natale Audio—modified 600 Series Ampex pre's."

Chandler: "I've found U87s or 47s on the fiddle are reliable and great when-in-doubt mics, but another one I like is this Studio Projects [LSD2] stereo mic, which is a large-diaphragm mic and surprisingly flat. I used to do two 87s on Mike Cleveland, for instance, but after I used the Studio Projects stereo mic on him one day, he called me up late that night, and said, 'What mic did you use on my fiddle? This is the first time it's ever sounded exactly like my fiddle!' So I used that on Ronnie Stewart, too, and I've used it on Stuart Duncan. It gives you two channels, obviously, and the coverage is great."



## BANJO

Paczosa: "I'll usually put a mic down below the tone ring, near the bottom left pointed up. Because it's a harder sound there, I like the Royer 121 for the tone ring. Then, in front of the banjo I usually will put a large diaphragm—either an Audio-Technica or a Neumann M49 or a 67—about eight inches away from the open spot below the strings and angled up toward the bottom strings. Another mic I've used and loved is this really old, nasty, giant iron microphone—a Telefunken 201 into a Telefunken V76 preamp. It is outstanding to blend that in with any large-diaphragm

Neumann. It has a midrange punch that is perfect for banjo in a full track. In general for preamps on banjo, I use the Mastering Labs—I love tube compression, especially if the banjo is being played hard. And if I need *more* compression, the dbx 160 has a nice attack and release for banjos."

VornDick: "I stereo-mike banjos. On the high end you really can't beat a KM84. Sitting in the position of the banjoist, coming in from down to the left, I'll put it in between the resonator and the head, then move it around until you hit the sweet spot. Then I'll use a U89, which is sort of an unsung hero. A lot of banjo players like a U87. Another one I like is this Swedish microphone, a Milab 56. When Béla Fleck brings out his old Mastertone banjo, which is a beautiful instrument, I'll mike it differently, maybe using a C-12 or a C-24."

Kohrs: "For banjo, I'm a Mojave Audio fan all the way. I'll run stereo Mojave MA200s. I like my stereo zone to be right where the neck joins the head of the banjo—to me, that's the sweet spot, but it depends on whose instrument it is. I'll use two channels of Fred Forssell preamps—banjo takes a really fast pre, and most times I won't compress the banjo at all going down. In fact, upright bass is the only thing I compress at all."

Chandler: "For JD Crowe, I have a wonderful 40-year-old U87 that I have used on him for years. We've tried other things but we always come back to that. Sonny Osborne, too; he says, 'Just bring that U87; that's all I want.' If I do use two mics on a banjo player, it'll probably be two U87s. There have been instances where I'll reach out and grab a [RCA] 77X ribbon mic. I recorded Earl Scruggs the other day and that's what I used on him. I've also used the Royer [121], which also sounds the way a ribbon should sound. I used that on NewFound Road at Dark Horse. I usually record everything pretty flat because they bring these \$100,000 instruments in there, and if you've got a good

mic, you're in good shape. So I almost never insert the EQ button. I like using Tube-Tech preamps on banjo; in fact, I like that on just about anything. But I also like Neve and API preamps, as well."



#### GUITAR

**Paczosa:** "Usually, I'll use KM54s or the Royer SF24. I'm leaning more on the SF24 these days, especially if I'm not looking for a wide stereo image in the mix. The SF24s have a little bigger low end than I usually want on guitar, but after I shape the bottom a bit and dig out some top end, it's beautiful. If it's a more sparse production I'm after, I might head back to the 54s so that I can get a wider image. If it's the 54s I end up with, I love the Mastering Lab preamps, GML EQ and GML compressor. If I go with the Royer, I usually pair it up with the Vintech X81, which has plenty of gain for a ribbon and great-sounding EQ."

**VornDick:** "This really depends a lot on the player and the guitar, of course. On Tony [Rice], historically, if he's going to be playing Clarence White's [1930s Martin D-28] guitar, I'll use a Sanken 31 and 32. On someone else I might use KM84s or 184s. Martins can get really boomy when you get to the 35s and 45s. The D-28s are still pretty smooth on the low end; they don't have that thump. I'd normally use an API or Neve [pre], depending on where I'm recording—if I'm going to bring in my racks."

"My mic placement on guitar is a little odd. I have one where the neck joins the body, pointed in the area, looking at the guitar, to the right, between the hole, arch and neck, where the higher transients are. Then I have another one that looks down from where his right shoulder is because most guitar players play to the right ear—and that mic is pointed down to the upper end of the guitar, covering the area in the middle between the wrist and shoulder. That microphone emulates what the guitarist is hearing, and will be deeper in tonal timbre. I keep the 3-to-1 rule in mind [if a mic is one foot away from the instrument, it must be three feet away from another mic that is a foot away] and the two mics are no wider in angle than 90 to 110 degrees. They both will be focused to the back of the sound hole."

**Kohrs:** "Recently I've been using a stereo pair of Peluso P-28s run through either Telefunken V72s or the Forssell pre's. Placement depends on how boomy the guitar is—if it's a boomy old Martin, Mike and I will either use a Blumlein at the 12th fret to get a lot of punch and what have you, or we'll do an

over and under. If it's a finger-picking thing, I tend to mike the guitar left and right wide and get it really close to the guitar to get the fingerpick noise."

**Chandler:** "The guitar determines what mics I'll use, but I have favorites. Ricky Watson always comes to the studio with a good Herringbone [a type of Martin D-28 made between 1932 and 1946] because he's got 12 or 15 of them! And, of course, Tony [Rice] has that awesome [D-28], but his right hand is awesome, too, and pulls the tone out of that guitar. Both of those guys like the small-diaphragm mics like KM84s, but

sometimes I might put a U87-sized mic or a 47 miking from the center out and then put an 84 or an 86 up around the neck area. For pre's, I stick with Neves and APIs."



#### UPRIGHT BASS

**Paczosa:** "On upright bass, I have always loved combining a Sony C880G and a B&K 4006. The Sony has all the top end I need for attack, as well as good low-end definition. I love an omni blended in to pick up some room ambience. I'm not too picky about what preamp I use

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on the bass, but I love the Anthony DeMaria ADL 1000 compressor. It has the perfect attack and release for doghouse bass."

VornDick: "For bass, you can't beat a 47 or a 77DX, or a 44. The Shure KSM 44 is really amazing because it has a really tight low end to it. Then there's the [Crowley and Tripp] El Diablo—that can take so much level. Typically, I'll have that lower mic six to eight inches off the bridge, either a little to the left or the right depending on the player. For the upper-end mic, historically I used to use a KM84, but right now I'm loving the new Telefunken 260. I used that on this new Charlie Haden record, and we both loved it. For that upper microphone, I'll go to the center of the upper curve and angle it toward the strings. For a preamp, for ribbons and large-diaphragm mics like that, I'd choose a Great River [Electronics] preamp because you have a lot of options and a pretty fast slew rate."

Kohrs: "When I'm using two mics, for the bottom mic I'll use a K2 RØDE or Audio Technica 4060 through a [Universal Audio] LA-610 [tube preamp] with mild compression at -2, run through a Natale Audio—modified Ampex 351. For the top mic, I use a Violet 'Finger' mic run through a Forssell

preamp. I use that for finger noise to get some punch. Sometimes I'll add a third mic to the bass, too, like another 4060."

Chandler: "For the bottom mic, I like to use an RCA 44 ribbon with a UA LA-610 pre, which gives me more impedance options and a smooth warmth for the low-end tones. I generally like mic placement for this at around six to eight inches from the bridge, depending on the room and instrument volume. For the top mic, I really get good results from U67 or U87s. These mics have good proximity response, which gives you more coverage and ambience."



### DOBRO

Paczosa: "On dobro, it really depends on who is playing. Jerry Douglas makes it really easy. Depending on the dobro and the key that the song is being played in, I will start with a pair of Neumann 582s into the Vintech X81 into the Empirical Labs Distressor. If it's sounding too metallic, then we move right to our Royer options."

VornDick: "On Jerry Douglas, I use a pair of 67s through a Great River preamp; on his new album, that's what I used. On another

session, I used Telefunken 260s—because I was using the 67s for vocals—and that was immaculate. Mike Auldridge likes KM84s, and I've also used KM86s. I'll place the mics six to eight inches off the instrument—one where the hole is on the treble side and one off the resonator, but it depends a little on whether we're talking about a dobro [brand] or a Scheerhorn or a Beard because of the way the overtones work on those particular instruments."

Kohrs: "Again, I'll use Peluso P-28s run through the Telefunken V72; or the Violet 'Dolly,' now called the 'Black Knight,' works great, too. Doing tracks with heavily featured dobro, a darker sound sometimes sounds better and I'll go with Royer 121s."

Chandler: "Dobros are fun, especially when you have players like Rob Icks, Jerry Douglas and Phil Ledbetter to work with, along with good instruments that make mics and placement easier. I like Royer 122s, U87s and C-12s. I always listen for sweet spots before I do any placements and try to get as familiar with the tone of the instrument and player as possible to reproduce the tone accurately." ■

*Blair Jackson is Mix's senior editor.*

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World Radio History

# BLACKBIRD STUDIO

By Tom Kenny

There's something about Blackbird Studio. Producers pop in and out (some of them have their own rooms), and talent comes and goes at all times of day, passing each other in the hallways twisting through the six main rooms. You'll find 24-track tape machines, 8-track/2-inch machines and 16-track/2-inch machines, which are currently in use for the Kings of Leon project. Vintage guitars, vintage amps and vintage-vintage mics are everywhere you turn. Every room is filled.

There's a buzz about the place, the same kind of vibe most likely felt at places like Power Station and Hit Factory in their early New York days. Or Record Plant and The Village in L.A. any number of times during the past 40 years. Or at Abbey Road before it became a legend.

In the past 18 months alone, Blackbird has hosted sessions for the White Stripes and The Raconteurs, Keith Urban, Brad Paisley, Bon Jovi, Kid Rock, Vince Gill, Martina McBride, Mariah Carey, Faith Hill, Carrie Underwood, Taylor Swift, Rascal Flatts, the Dixie Chicks, Jimmy Buffett, Jamie Foxx, Kenny Chesney, Tim McGraw, Garth Brooks, Dolly Parton, Randy Travis, Michael Bublé, Michelle



PHOTO: JOHN PARIPELO

One of the many walls of vintage outboard gear available for rental at Blackbird



PHOTO: GEORGINCE

The main room, where Martina McBride is currently working with Dann Huff

Branch and more. Producers and engineers spotted behind the boards include Justin Niebank, George Massenburg, Dann Huff, Tony Brown, Ethan Johns, Richard Dodd, Niko Bolas, Rob Cavallo, Peter Asher, Phil Ramone, Jeff Balding and countless others, some of them pictured on this month's cover, shot April 17, 2008, in Studio A.

"I was having dinner with Niko Bolas and Josh Leo the other night," says Niebank, who has a semi-permanent residence in the SSL 9K-equipped Studio F. "They were telling stories about L.A. in the '70s and New York in the '80s, and I started thinking, 'This is the kind of place they will be telling stories about in 20 years. This is the type of place where you bump into each other and share things.'"

It's hard to believe that a little more than six years ago, Blackbird didn't even exist.

## A BRIEF HISTORY

You can't really understand the rapid growth and success of Blackbird without at least a small sense of its owners, Martina and John McBride, the former a vocal powerhouse and country superstar and the latter a force of nature with a passion for music and audio. Raised in and around Wichita, Kan., out of high school, John McBride was denied an SBA loan for a recording studio but approved for a live sound system company. "Best thing that ever happened to me," John McBride says today. After years of rental and mixing regionally, he met Martina, married soon after and the two headed to Nashville on New Year's Eve 1989 with a semi full of gear.

His small P.A. company, MD Systems, hit it big with Garth Brooks in the early '90s, and

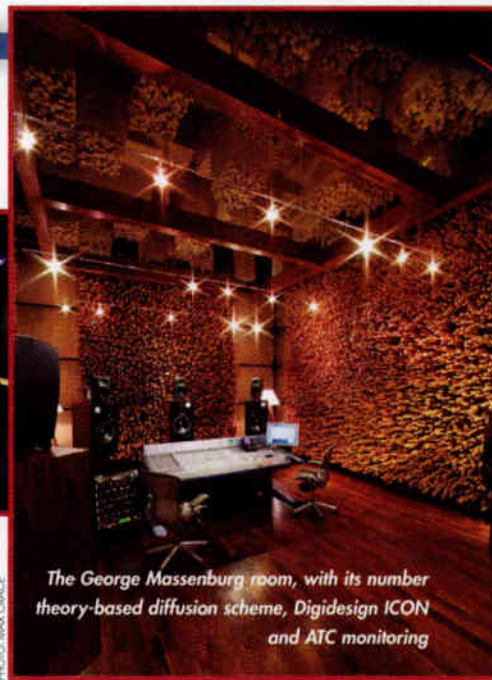


PHOTO: MAX COVACE

The George Massenburg room, with its number theory-based diffusion scheme, Digidesign ICON and ATC monitoring

in 1997 McBride sold to Clair Bros. (He still runs the Nashville operation.) Soon after, he started feeling the studio itch, and by 1999 was learning Pro Tools and starting to order equipment that had no home other than his basement. A Neve 80 Series landed on the loading dock at Clair, along with an API console, a Fairchild, an 1176, a pair of 24-tracks and the first of his many Telefunken 251s. (Today he owns 29, along with 10 250s.)

"I remember the day John called up and said he wanted a vocal booth in his garage," says Vance Powell, general manager of Blackbird and an engineer himself. "We started off with a Pro Tools system in his basement. He learned it, bought some more equipment, and today you're standing in the vocal booth!" he says with a laugh, spreading his arms to encompass the block-long Blackbird complex.

On January 15, 2002, his 44th birthday, McBride closed on a small property in Berry Hill, Creative Recording, home to hits from The Judds, Kenny Rogers and others. It was a George Augspurger room from the '70s, with a compression ceiling. During the next year, the room was enlarged, Augspurger was brought back in to retune, the Neve was reconditioned and the live room was expanded. "He still was thinking of just one room and an edit room," recalls Powell. "He wanted a place where he could really raise the level of recording for Martina."

During the past six years, McBride has added rooms and whole wings, all the while



amassing one of the largest collections of vintage gear in the U.S. Blackbird now encompasses six main studios, along with edit bays, offices, storage, lounges and one amazing hydraulic-lift variable chamber. Two rooms have API Legacys, including the largest API ever built recently installed in D and used in the past year by the White Stripes, The Raconteurs and now Kings of Leon. Studio A, the original room, houses the Neve 8078 and was being employed by Martina McBride, with Dann Huff co-producing, on the day *Mix* was there. The other studios house the 9K and a couple of Digidesign ICONs, including a rolling model in Massenburg's custom four-wall diffusion track/mix/overdub room. A Trident Series 80 B is at the warehouse, "just in case." All monitoring is ATC.

Beyond the studios, McBride has opened up space for manufacturers, including Korby Microphones and GML Inc. And he runs a successful rental operation, with a massive collection of rare outboard gear, vintage instruments and even rarer microphones.

**THE COLLECTOR AND THE COLLECTION**

"I love microphones," McBride smiles, sipping a Dr. Pepper over Sonic Burger ice. "The right mic on the right input is just magic. And you can solve about 99 percent of your problems by changing up the mic, either by placing it somewhere else or swapping it out. When you have the right mic, you don't need EQ. I just found this combination I love for electric guitar overdubs: an RCA BK 5A at the speaker through an RCA BA11A mic pre into a Fairchild 660—pretty incredible."

He now owns 29 Telefunken 251s and 10 250s; 18 AKG C24 microphones, including serial number 001; two of the "exceedingly rare" Hiller M59 microphones used at Abbey Road; 40-plus Telefunken, Neumann and Church U47 microphones; 36 RFT 7151 bottle mics from the '30s used on Martina McBride's *Timeless* record; and he's recently turned his attention to more Neumann KM54s, AKG C28s and Telefunken Ela M 201 ribbon microphones.

He also owns dozens of Fairchilds and 1176s for rental, along with 40-plus Pultec EQs, tube and solid-state Decca compressors, ADR/CompeX compressors and limiters, Pye compressors, Cooper Time Cubes, EMT 240 and 250 reverbs, Publison Infernal Machines, 2x Dumble 100-watt Overdrive Special Guitar amps, UREI 850 compressors, 100-plus Telefunken tube mic pre's, RCA OP6 mic pre's, RCA BA11A mic pre's, Gates Sta-Level compressors, Neve 33609A and 2254 compressors, Eventide 2016 reverbs,

Cyclosonic Panners and enough band gear to set up for 30 bands simultaneously.

The Beatles fan in McBride is particularly proud of the 16 channels of EMI Mastering EQ and compressors to go with his EMI Curve Bender EQ. "They built this stereo 3-band so that any tape that came in from another studio would sound like Abbey Road. It's incredible," he says.

Blackbird also makes hundreds of guitars available for recording, everything from McBride's 1914 Martin to 30-plus pre-CBS Strats and Teles, to 1959 and 1960 Les Paul Flame Tops, the latter of which "was all over Keith Urban's last record." He also owns a



Blackbird's rare Hiller M59, a small-diaphragm condenser used by Abbey Road in the early '50s



The famous EMI Curve Bender EQ

1949 Gibson J200 and was thrilled when Cowboy Jack Clement came in last year with a 1950 model that he had bought new. "I loved that," McBride says. "He's had that damn guitar for 57 years and he's still playing it. Nothing bothers me more than guys who buy guitars and put them behind glass. Guitars need to be played, and they need to be played on hit records.

"People who love music will find their way here," he continues. "I'll admit it, when I started this place, 25 percent of my motivation was the fact that Nashville has been treated like a stepchild in the industry for a long time. And we're sitting here with the greatest writers, producers, engineers and artists in the country. At Blackbird, we have an amazing team—from our head tech Richard Ealey to our co-manager and head booker, Scott Phillips. All we care about is audio and vibe, and all we're looking for is to inspire those players, producers, engineers and artists."

Engineers and producers who visit Nashville inevitably leave there talking about the pro studios, and the monster players, as well as the competitive yet supportive community. Niebank, a '90s transplant from Chicago, takes talks about both Blackbird and Nashville at large. "We have the best studios, the best engineer pool and the best studio musicians in the world—period. And they're making a living. They're really playing drums, and I'm not overdubbing guitar! Imagine that. There's this overall spirit in town that we're all shooting for the best possible music together."



PHOTO: JOHN PARRIELLO

Studio D, with the largest API Legacy console ever built. Recent sessions include the White Stripes, The Raconteurs and Kings of Leon.



PHOTO: JOHN PARRIELLO

AKG C-24, serial number 001

# HISTORY LESSON

By Peter Cooper

STATE OF  
NASHVILLE  
NASHVILLE  
STATE OF

Just out of the Navy in 1946, guitarist Harold Bradley was anxious to record some country music. So he headed to Chicago to meet up with Pee Wee King.

"There really wasn't a recording scene in Nashville," says Bradley, now likely the most recorded guitarist in popular music history. "There was no Music Row and no A-Team of studio musicians."

To that point, most of what we now know as classic country music had been recorded in other environs. The Carter Family and Jimmie Rodgers first recorded in the border town of Bristol, Va., and Rodgers' first famed "Blue Yodel" was cut up in Camden, N.J. Atlanta; Charlotte, N.C.; Dayton, Ohio; and Cincinnati were viable places to record country music. But the presence of WSM AM 650 radio and the Grand Ole Opry meant that Nashville was attracting plenty of ace musicians and singers, and that "hillbilly" artists would do well to find places in Middle Tennessee to record rather than have to hit the road to make records.

In the mid-1940s, Eddy Arnold and Red Foley recorded at WSM's studios, and by 1946, three WSM engineers took out a \$1,000 loan and founded Castle Recording Laboratory in the Tulane Hotel, downtown at the corner of 8th Avenue N. and Church Street. Bradley recorded with Hank Williams at Castle, and the Tulane Hotel doors swung open to accommodate dozens of Opry stars. But the rise of television meant that WSM demanded more time of its engineers, and Castle's reign as titan of Nashville's studios was short-lived.

Flash to 1952, when Harold Bradley and brother Owen Bradley decided to open a film and television studio. By then, music publisher Acuff-Rose had established itself as a successful Nashville presence, and performing-rights organizations were collecting on songs played over the airwaves. The pieces were in place for a recording boom. The Bradleys started one studio, but the land owner tripled the rent and the brothers moved their operation to the Hillsboro Village neighborhood. In 1954, they bought a property on 16th Avenue, and that became the first studio on what is now known as Music Row. The Bradleys built a Quonset hut at the site, and in that hut they began recording music. Harold Bradley played guitar, banjo and bass, and Owen Bradley (a piano player) produced records.

The Quonset Hut operation's success got the attention of RCA Records, and in 1957, RCA Studio B was built within walking distance of the Bradleys. The "A-Team" of

musicians—a group that came to include Harold Bradley, guitarist Hank Garland, drummer Buddy Harman, pianist Floyd Cramer, pianist Hargus "Pig" Robbins, fiddler Tommy Jackson, steel guitarist Pete Drake (and later Lloyd Green), sax man Boots Randolph, bass player Bob Moore, guitarists Ray Edenton and Grady Martin, and vocal groups The Jordanaires and the Anita Kerr Singers—shuffled between the studios and played on thousands of records.



## NASHVILLE'S MUSIC MILESTONES FROM THE BRADLEYS TO THE OUTLAWS & BEYOND



Owen Bradley leans over his 3-track board at the Quonset hut

musicians—a group that came to include Harold Bradley, guitarist Hank Garland, drummer Buddy Harman, pianist Floyd Cramer, pianist Hargus "Pig" Robbins, fiddler Tommy Jackson, steel guitarist Pete Drake (and later Lloyd Green), sax man Boots Randolph, bass player Bob Moore, guitarists Ray Edenton and Grady Martin, and vocal groups The Jordanaires and the Anita Kerr Singers—shuffled between the studios and played on thousands of records.

"We'd be at one studio or the other," says Harold Bradley, who heads Nashville's Musicians' Union. "We were tremendously busy. No one can imagine it unless they lived through it. They scheduled the sessions around us. It was a great opportunity, and one that probably won't happen again. There are great players in Nashville now, but there's not one team of players."

There was danger, though, in the form of a gyrating Memphis kid named Elvis Presley. His exciting new sound stole listeners from country and damaged the careers of Ernest Tubbs, Carl Smith, Webb Pierce, Lefty Frizzell and others. Grand Ole Opry attendance slipped dramatically, and



Chet Atkins (seated) with Waylon Jennings in RCA Studio B

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attempts by Little Jimmy Dickens, Pierce and others to shift into rockabilly were less than successful (though Dickens' "I Got a Hole In My Pocket" is, in hindsight, a pretty slammin' little record).

At first, the country labels reacted to Presley by recording older singers doing material geared toward teens—Pierce's nasally "Teenage Boogie" is the most unintentionally hilarious example—but then Capitol Records producer Ken Nelson took two younger artists and have them record in a pop leaning rather than rockabilly style. Ferlin Husky's "Gone" and Sonny James' "Young Love" became monster hits, crossing into the upper reaches of the pop charts. The A-Team; producers Nelson, Bradley Don Law and Chet Atkins; and engineers such as Bill Porter were skilled enough to shift styles, and what is now called "The Nashville Sound" was born. The A-Team also provided brilliant assistance on Nashville-recorded rock hits such as Presley's "Are You Lonesome Tonight," Brenda Lee's "Rockin' Around the Christmas Tree," Roy Orbison's "Only the Lonely" and the Everly Brothers' "Bye, Bye Love."

Away from Music Row, a thriving R&B scene was taking shape. Etta James and Ruth Brown recorded marvelous works in



**Hank Williams—a country music legend**

Nashville, and Excello Records released numerous important sides (Arthur Gunter's "Baby Let's Play House" among them). And the Row studios sometimes opened to R&B; Gene Allison's "You Can Make It If You Try" was recorded at the Bradleys' studio.

Many listeners didn't realize that the R&B and rock hits were cut in Nashville studios as the city became better known for delivering country narratives done up with big vocal choruses and pop arrangements. One of those "Nashville Sound" hits, Don Gibson's "Oh Lonesome Me," was the first major Nashville recording in which the drums were miked. And by 1960, Presley' rock 'n' roll

scare wasn't so scary, and Nashville was the second-largest recording center in the United States, after Los Angeles.


In 1962, the Bradleys sold their Quonset Hut to Columbia Records, agreeing to go without a studio of their own for two years. As the hut became home to Johnny Cash, Flatt & Scruggs and other Columbia acts, Owen Bradley scouted, planned and opened Bradley's Barn in Mt. Juliet, Tenn. Owen Bradley was an architect of Music Row and a visionary who moved off the Row when it became prudent.

"That opened in 1965," says Harold Bradley. "I remember that it was a 52-mile round-trip from Nashville, and there was one Dairy Dip where you could eat along the way. But after Bradley's Barn, things started opening up in different places, aside from Music Row. You had Woodland Studios in East Nashville, and then you had other studios opening up near the Row. Quad was one, and Sound Emporium. All of a sudden, there was a blossoming."


In the 1960s, and since then, Nashville was the undisputed center of the country music recording industry. To be sure, Buck Owens, Merle Haggard and others made great records out West. But the majority of the

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hits were cut in Nashville, and the majority of the recording musicians, engineers, songwriters and publishers who mattered were in the 615 area code. Texas and California produced some invigorating country music, but Nashville musicians and producers did not settle for a tepid mainstream. Bob Dylan came to town to record with Music City pros for albums *Blonde on Blonde*, *John Wesley Harding* and *Nashville Skyline*, and The Byrds charged into Nashville to record the *Sweetheart of the Rodeo* album (with significant contributions from steel-guitar innovator Lloyd Green). Country sounds entered mainstream pop and rock. And ABC-TV's *The*

*Johnny Cash Show* was a weekly late-1960s and early 1970s showcase for collisions of country, rock, pop and jazz.

After one *Johnny Cash Show* taping, Neil Young called pals James Taylor and Linda Ronstadt into Quadraphonic Recording Studios, just off Music Row. They laid down tracks that would be featured on Young's *Heart of Gold*. And in 1972, the Nitty Gritty Dirt Band invited a bevy of old-time country performers—including Mother Maybelle Carter, Roy Acuff and Jimmy Martin—to Woodland Studios to make the *Will the Circle Be Unbroken* album, a confluence of long-haired country-rockers and old-school, first-



Country music neo-traditionalist George Strait

and second-generation country stalwarts.

Perhaps the most memorable force of Nashville's 1970s was the "Outlaw Movement," in which Bobby Bare, Waylon Jennings, Willie Nelson and other artists temporarily wrested creative control from Music Row labels and producers. This movement resulted in the country's first Platinum album sales and some astounding music, but by the 1980s, it was clear that any victories had been pyrrhic in nature. Today, three decades after artists won creative control, most major recording projects are helmed by a big-name producer, and many of those producers also work as label bosses. Artists' instincts are, in fact, minority opinions.

In the early 1980s, the Outlaw scene died down and gave way to smoother sounds, as the *Urban Cowboy* craze caught on. But the mid- and late 1980s brought what Steve Earle termed the era's "Great Credibility Scare," in which Earle, Dwight Yoakam, Nanci Griffith, Lyle Lovett, The O'Kanes, Foster & Lloyd and others stretched country's parameters without straying from the music's roots. And neo-traditionalists George Strait, Ricky Skaggs and Randy Travis revived interest in the traditions of Hank Williams, Bill Monroe and Lefty Frizzell.



These days, record company consolidations and sales slumps are making things difficult along the Music Row forged by pioneers like the Bradleys and Atkins. Nashville music isn't defined by any present-day unease, though. Nashville is the fuzztone electric guitar played by Grady Martin on Marty Robbins' "Don't Worry." It is the soulful balm of Gene Allison's "You Can Make It If You Try," and the pristine engineering and trembling vocal presence on Roy Orbison's "Only the Lonely." It is a tumbling Atkins guitar lead, the thump of Bob Moore's bass, the plaintive voice of Loretta Lynn and the growl of Kris Kristofferson. It is Brent Mason's chicken-pickin' Telecaster and Jerry Douglas' dobro. It is Gene Vincent at the Bradleys' studio, singing, "Be bop a lula, she's my baby doll, my baby doll, my baby doll." It is now, and ever shall be. ■

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# COWBOY JACK CLEMENT

Anyone who would criticize Nashville for safeness or homogeneity has never spent any time around Jack Clement's Cowboy Arms & Recording Spa studio at his Belmont Boulevard home. The Cowboy (who hates horses, by the way) is a legend whose influence has spread over a half-century of American music. He was present at Sun Records, putting the tacks in Jerry Lee Lewis' piano and recording some of the early classics of rock 'n' roll. He wrote songs recorded by a bevy of music heroes. He discovered Charley Pride and Don Williams, and he produced what many believe to be the greatest album of Nashville's "Outlaw" movement: Waylon Jennings' *Dreamin' My Dreams*.

He has helmed sessions for Johnny Cash, Louis Armstrong, U2, Roy Orbison and hundreds of others. And he has been a mentor to a younger generation of producers and engineers that includes Allen Reynolds, Garth Fundis, Dave Ferguson and Jim Rooney. As illustrated by the recent documentary DVD, *Shakespeare Was a Big George Jones Fan: Cowboy Jack Clement's Home Movies*, there are no more than two degrees of separation between the Cowboy and Cash, Jones, John Prine, Nanci Griffith, Townes Van Zandt, Mac Wiseman and any number of other luminaries of American rock, country, folk, bluegrass and Americana music.

That he's done all this while having more fun than anyone in town is no mystery to those who have heard him proclaim, "We're in the fun business. If we're not having

fun, we're not doing our job." Recently, Clement sat in his office—amidst priceless Martin and Gibson guitars, a photo that Cash took of the Cowboy at a pool, dozens of little battery-powered trinkets that make flatulent noises and stacks of CDs—and talked about some highlights from his unique and colorful life in music.

**What was your first recording production?**

The first thing I produced was a record with Billy Lee Riley, back in Memphis.

**What made you think you could produce a Billy Lee Riley record?**

*Jerry Lee Lewis' rock 'n' roll masterpiece, recorded by Clement*

Well, I thought he was really good. I'd been practicing on a Magnacorder, which was considered professional before Ampex came out. And I went with Billy Lee down to where they had a little room at WNPS, which was the Top 40 station in Memphis. We were there three or four hours and cut two sides the first time.

50-PLUS YEARS  
AFTER THE  
SUN DAYS,  
HE'S STILL IN THE  
"FUN BUSINESS"



Clement with Johnny Cash: What were they singing?

One was a country song. I took it to a distributor there, a guy at Music Sales, and we were going to press it up. He was the one who told me we should get Sam Phillips to master it. He liked the rock 'n' roll side, but he thought we should put one more rock 'n' roll thing on the other side. So we went back and did one more side, and that's what I took to Sam to have it mastered.

At the time, I was working in the hardware department at a building supply place, and I hated it. But I was off every Wednesday. I dropped the song off to Sam one Wednesday and went back the next Wednesday to pick it up. Sam was sitting up in the front office. Nobody else was there. He said, "Come back to the control room. I want to talk to you. That's the first rock 'n' roll anybody's brought





me around here.” He offered to put it on Sun and pay us a penny a record. He said, “What do you do?” I said I had been going to Memphis State but that now I was working at the building supply place. I said, “I don’t like it very much.” He said, “Maybe you ought to come to work for me.” I said, “Maybe I should.” And I did—exactly two weeks later.

**Was it an easy transition for you to begin working the board at Sun?**

It wasn’t hard. At Sun, we only had six inputs. An old radio board. Rotary pots. No EQ. No echo sends or anything. If you wanted to have echo on something, you had to have two mics, and it took up two of the slots and you’d run one through a separate tape recorder. I hadn’t been there very long before I talked him into getting a mic splitter where we could have a side thing where you could put echo on five mics. But it was a very basic system. He didn’t have an echo chamber—just slapback, running at 7½ ips or 15. I would always run it at 15. At 7½, it was too much delay. One of the first people he let me work with was Roy Orbison.

**How close is what we hear on those records to what you’d hear in the room while the recordings went down?**

Not close. I wasn’t thinking about getting a reality; I was trying to get a sound. I wasn’t trying to get it like it sounded in the room; I was trying to get it better. Sam came in one day and did some tape editing, and I thought that was really cute. He didn’t bother with a crayon or anything to mark. He’d just stick them scissors down there and snip it. He showed me how to do it. After that, I did a lot of splicing. And it was mono. If we wanted to overdub, we’d have to go mono to mono. I’d have three tape machines going: one for the echo, one for the original and one for the new material.

**Did anyone really bowl you over the first time you heard them at Sun?**

Well, Jerry Lee Lewis. He was only doing country when he came in, but it was great. And I made a tape of it. Later I played it for Sam and he flipped, said, “Get that guy in here.” Couple weeks later, he came in. It was on a Monday. I told him if he’d come back Thursday, I’d have some musicians and we’d make some tapes. So that’s what happened. Sam was driving to Nashville that day for the annual DJ Convention.

We came up with “Crazy Arms” kind of by accident. We were about to quit on that Thursday, and I said, “You know ‘Crazy Arms’ by Ray Price?” He said, “I know a little of it.” I said, “Let’s cut it.” Nothing in the room but piano and drums, and we cut the thing. And that was it. I’d come up with a neat way of miking that little Spinet piano. It had thumbtacks in it. And normally you would mike it from the



PHOTO: DAVID MUELLER

top. but I took the plate off from the bottom and stuck the mic underneath. And that’s the sound you heard on “Whole Lotta Shakin’” and a whole lot of other stuff. When I put the tape on and started playing and piano comes on, before it got to the singing, Sam said, “Now, I can sell that.” This was in October of 1956.

**Were the tacks already in the piano before you got there?**

No, I put them in on the hammers. Gives a pingy effect. It’s not something I invented, but it’s something I used. It sounded good, especially when I miked the piano from the bottom.

**I can’t imagine walking into a studio and recording “Whole Lotta Shakin’ Goin’ On.” What do you do after you put something like that on tape? Do you open a bottle? Do you go find a hamburger?**

Fact is, we cut that and didn’t even listen back to it at first. We had been working on “It’ll Be Me,” a song I wrote. I got tired of it and walked out, and said, “Let’s do something else for a while and we’ll come back to this.” His bass player, J.W. Brown, said, “Jerry, do that song we’ve been doing on the road that everybody likes so much.” I said, “Let me record it.” I turned the machine on, sat down, they did “Whole Lotta Shakin’.” One take. No dry run. Then we did “It’ll Be Me.” Then later on that night, we listened to “Whole Lotta Shakin’,” and that time we kept listening, all right. Sam came in the next day and I played it for him, and he said, “Get that sucker ready; we’ll put it out.”

**Did you have a sense that you were creating history?**



PHOTO: DAVID MCCLISTER

No, but I knew I was really enjoying myself. I do remember at least one time Sam said, "There'll come a time in years to come when they'll take these songs and put them in Broadway shows and in movies." So he had a vision.

**Was it tough working under him? Being number two?**

Not really. Only sometimes he'd kind of take credit for something I did. They didn't put anybody's name on it as producer. No, we got along pretty good. I thought he was full of shit most of the time, and he was. But then he had his moments of crazy, mixed-up genius.

**Was the building itself important at Sun or could you have easily replicated all of this at some room down the street?**

You know, Sam was always talking about how the studio had a sound, and I didn't fall for it. But working with U2 years later at Sun, I went back and realized what it was: It was kind of a presence thing. A bunch of leakage is what made it. But it was good leakage. not tubby-sounding leakage. It had a natural sound to it. With U2, they cut at Sun on a 12-track Akai. That's all they had at the studio at that point. They needed us to transfer it onto a 24-track. So Dave Ferguson, who I had working for me, talked 'em into letting us take it here. What was neat about it is you could sit in my studio years later and there had been enough mics up so that we could listen to all the parts of the room at Sun.

**When you left Sun, were you certain you wanted to stay in music?**

Oh yeah, I started a record label. I had writer royalties coming in from "It'll Be

Me" and "Teenage Queen." So I had some money. I built a neat studio down in Beaumont, Texas. We found a store building, and I went in and gutted it, cleared it out and started over. Put in a nice studio. Had a radio board similar to what I had at Sun. But we cut a hit record within six months: "Patches." Had about nine splices in it, as I recall. And we had a real echo chamber, back behind the control room. I talked Allen Reynolds into shellacking it. Shouldn't have done that without ventilation.

**You loved your time in Beaumont. Why would you leave that and go to Nashville?**

I was wanting to expand, go multitrack. Bill Hall owned the place with me and he didn't want to take the chance. And Dickey Lee and Allen Reynolds moved back to Memphis. I stayed another year, but didn't do much more than write and demo songs. So when I came to Nashville, I had 30 songs with me that I'd demo'd. I got most of 'em cut. Things like "Just Between You and Me," which was Charley Pride's first Top 5 record.

**How important was it back then to know the technical part of producing?**

You had to know a few things, but there wasn't much to it. If you did something wrong, you could hear it. If you overrode something, you'd hear distortion. If it wasn't up enough, you'd hear leakage.

**Do records sound better now because of the digital stuff?**

I don't know, sometimes they do. But I don't like anything I hear on the radio, so I guess the answer's "no." Back then, it was, "Bring me something different." Now if somebody hears something different, it's always, "That's too different." But I haven't changed my basic approach to anything. I'll use a little EQ, but not to fix things so much as to get a sound. Within the last year, I've re-equipped my studio with Pro Tools HD and all that. We have the tape machine, but I only use it for archiving. We could use it, but why bother? I don't have any problem with digital. Something sounds the same way coming back as it does going in.

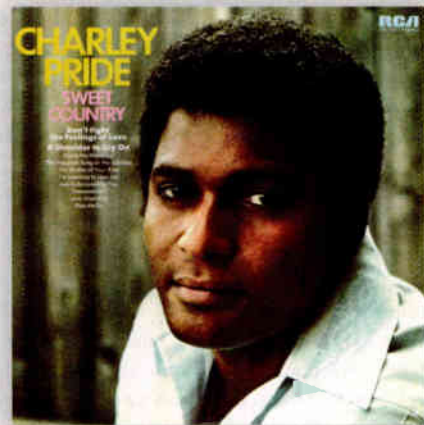
**Your "Rules for Recording" have become somewhat famous.**

Let's see, what were the rules? Be on time; that ain't changed. Be alert. Don't bring or invite anyone. Marty Stuart got fired one time for breaking the first three in a row. He was late, he was stoned and he brought somebody. I hired him back later, of course. I have rules, but I've never had a formula.

**You've said the problem with singers is they won't show you their secret voice. What does that mean?**

They don't know they've got a secret voice.

They're always looking for something else, trying to sing through their nose like all the rest of them people. They don't understand singing, that's what it is. They may have good voices, but they don't understand what the singer's supposed to do. Seems to me like people make too big a deal out of singing. They're trying to make up a voice. If they'd just let go and be themselves and not think about it so much and get all inhibited. But Charley [Pride] was one of the easiest I've ever had to work with because he would take direction.



And he had the pipes. I'll never forget the first time I heard him when we went into RCA Studio that first time. They had these hyped-up speakers anyway. When I heard that voice, and that bottom end—I'll never forget that. *Balls*, man, you know?

**Speaking of voices, do you tune vocals in the studio?**

I have never done that, except for very minor stuff. We'll move things around, but I don't do much in the way of tuning. If something needs tuning, I cut it over. They overdo it now, you know. They get it sounding perfect, and it turns out that perfect equates to shit.

**You mentioned David Ferguson earlier. He is one of many producers and engineers who you have mentored. There's been Ferg, Allen Reynolds, Jim Rooney, Garth Fundis. Do you know when you meet these people that they're going to be good at this?**

Not really. Ferg was my part-time errand boy to start with. I found out he could do a little carpentering and a little painting, but pretty soon he started showing real interest in running the board. He learned it inside-out. He didn't learn the basics. He started in the middle. But soon he was up there cutting stuff, and it sounded good. My place has always been a training ground. I like the fact that people can come here and learn. Same way I was with Sam. ■

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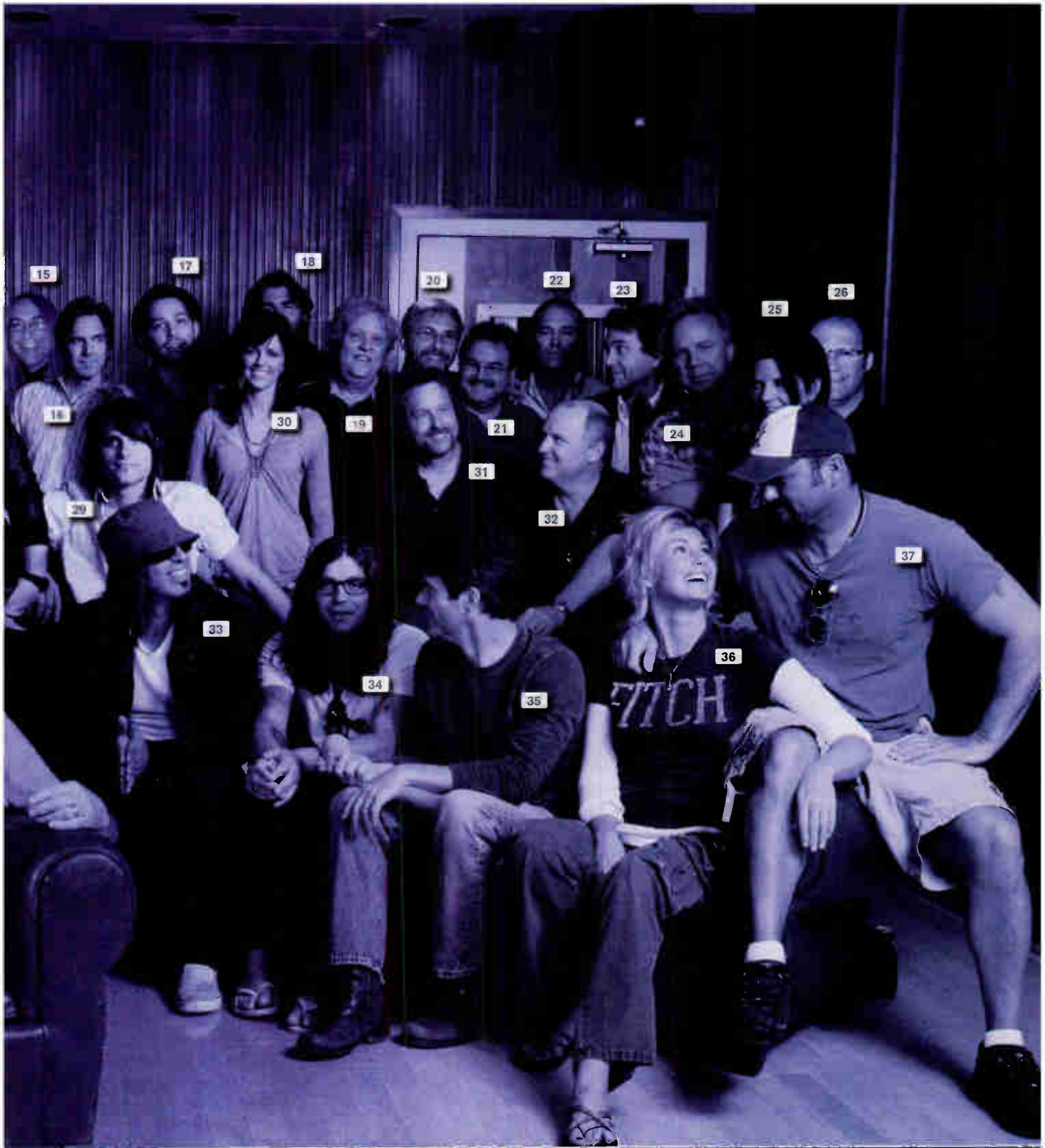
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# GATHERING AT BLACKBIRD

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1. John McBride, Engineer/Analogue Aficionado
2. Martina McBride, Artist/Producer
3. Holly Williams, Artist, Granddaughter of Hank Williams
4. Paul Worley, Producer
5. Byron Gallimore, Producer
6. Ed Seay, Producer/Engineer
7. Chris Lindsey, Songwriter/Producer
8. Mark Bright, Producer
9. Vance Powell, Blackbird General Manager and Staff Engineer
10. Tracy Korby, Microphone Designer
11. Bart Pursley, Engineer
12. George Massenburg, Producer/Engineer, Equipment Designer
13. Matthew Followill, Guitarist, Kings of Leon
14. Caleb Followill, Guitarist, Kings of Leon
15. Chuck Ainlay, Engineer
16. Dann Huff, Producer
17. Wade Ryff, Bassist/Producer, The Atma
18. Darrell Brown, Songwriter/Arranger/Producer



19. Michael Wagener, *Producer/Engineer*  
 20. Elliot Scheiner, *Producer/Engineer*  
 21. Richard Dodd, *Producer/Engineer*  
 22. Ben Fowler, *Producer/Engineer*  
 23. Justin Niebank, *Producer/Engineer*  
 24. Gary Paczosa, *Producer/Engineer*  
 25. Aimee Mayo, *Songwriter*  
 26. Rob Cavallo, *Producer/Engineer*

27. Tony Brown, *Producer*  
 28. Niko Bolas, *Producer/Engineer*  
 29. Jared Followill, *Bassist, Kings of Leon*  
 30. Karen Fairchild, *Artist/Producer, Little Big Town*  
 31. Jeff Balding, *Producer/Engineer*  
 32. Julian King, *Producer/Engineer*  
 33. Angelo Petraglia, *Songwriter/Producer*

34. Nathan Followill, *Drummer, Kings of Leon*  
 35. Jacquire King, *Producer/Engineer*  
 36. Faith Hill, *Artist/Producer*  
 37. Tim McGraw, *Artist/Producer*  
 38. Alfie, *yellow lab*

# LAYING DOWN

STATE OF NASHVILLE  
NASHVILLE  
STATE OF

The Country Music Television (CMT) Series *Crossroads*, now in its seventh season, brings country artists together in concert with mainstream rock and pop artists, staging one-of-a-kind performances that explore musical roots and where they intersect. The series is curated by CMT, whose producers work to match artists with interesting counterpoints in the *Crossroads* spirit, a process that has resulted in some remarkable shows, including Kid Rock and Hank Williams Jr., James Taylor and the Dixie Chicks, Martina McBride and Pat Benatar, Brad Paisley and John Mayer, Reba McEntire and Kelly Clarkson and the most recent: the seemingly made-for-*Crossroads* duo Robert Plant and Alison Krauss.

*Crossroads* is the brainchild of MTV Networks executive VP Bill Flanagan, also the creator of VH1's *Storytellers*. In addition to the collaboration happening onstage, there's intense teamwork going on behind the scenes to get this show together on a very tight schedule. Nashville-based music producer/engineer Tom Davis and MTV Networks Nashville senior audio engineer Stan "Quack" Dacus serve as *Crossroads*' audio co-producers. Dacus tracks the program out of MTV's Pro Tools HD-equipped R8 mobile recording truck, and Davis and his team at SeisMic Sound Inc. handle the mix to picture and all-around audio post-production.

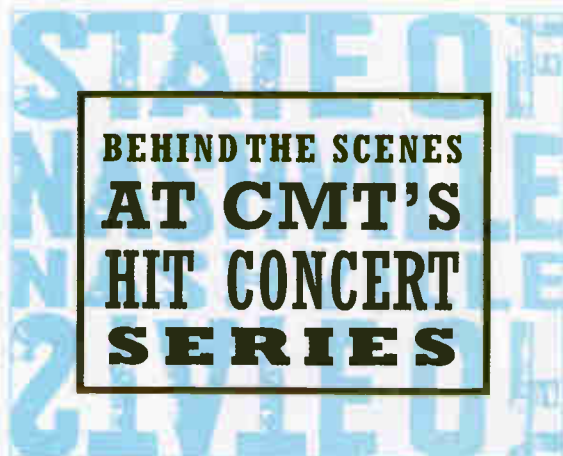
## EPISODE PLANNING, PREPARATIONS

To prepare for an episode, Dacus and Davis work with the artists' tour managers to devise a manageable stage setup,

In SeisMic Studio A are, from left, assistant remix engineer John Zvolensky, *Crossroads* audio producer Tom Davis and remix engineer Steve Johnson

requiring some paring down of bands and equipment. Because the country artists will perform the songs of the other featured artist and vice versa—for example, Ryan Adams singing lead on Elton John's "Rocket Man"—or in total duet—as in Joss Stone and LeAnn Rimes performing Rimes' "Nothin' Better to Do"—the hands will either switch off to play their respective songs or combine in some fashion as a "house band."

"There are so many wild cards involved," says Davis. "Every artist and every band is different, so we have a certain way we go about preparing and setting up, to a point. A lot of times, these are touring artists who are coming in with



The quintessential *Crossroads* duo: Robert Plant and Alison Krauss

their full band, their own front-of-house and monitor mixers, and their own preferred microphones and equipment. We'll start by looking over the input list on what these guys are using; if we can, we'll stick closely to that."

With just two days of on-site production setup and rehearsal, Dacus and Davis hear from the artists and management as the actual set lists develop. Dacus explains: "We'll start out with their full-tilt touring package, but by the time they figure out what songs they'll be doing, we can weed out a lot of unnecessary instrumentation and background vocals. As rehearsals get underway, the two full-stage setups can often be whittled down to something more manageable."

By design, *Crossroads* is meant to be an intimate performance with a small audience seated close together and close to the stage. With the exception of a few shows—Sheryl Crow and Willie Nelson in Los Angeles, Bon Jovi and Sugarland, as well as Brad Paisley and John



# "CROSSROADS"

Mayer in New York City—*Crossroads* happens on country music turf. It's typically shot on a Nashville soundstage set up to seat an audience of 200 to 300, with sound reinforcement support by Clair-Showco Nashville. The program has gone much bigger in size—as in the case of Kenny Rogers and Lionel Richie, who shot their episode at the Ryman Auditorium—and in sound, as with one of the earliest episodes. "One of the first shows we did was ZZ Top and Brooks & Dunn, and it was the first and last time we had both bands, including two drummers and two bass players, playing at the same time," says Davis. "The show ended up sounding really good, but it was quite a process in the remix to sort that all out and ultimately figure out what we could turn off."

By contrast, Dacus describes the most recent setup: the yet-to-air *Crossroads* featuring Sara Evans and Maroon 5. "Maroon 5's Adam Levine sang Sara's songs in duet with her and her band, and she sang with Maroon 5. We'll either have the two complete bands flip-flop or combine, as in the Keith Urban and John Fogerty episode, where it was really just the drummers who switched off."

## FROM STAGE TO BROADCAST

In recent years, Dacus has been recording *Crossroads* to two 64-track Pro Tools HD rigs at 96k/24-bit. Audio hits the Lawo mic pre's onstage at "split world" and travels via fiber to the HD rigs in the R8 mobile recording truck. Dacus gets a live mix up on the Lawo 56-input mc290 digital production console onboard. "I'll do the best mix I can on the monitor side of the console," Dacus notes, "EQ'ing only the monitor



ZZ Top and Brooks & Dunn make "big" sound onstage.

path so that we always hold on to the original source."

The show comes to Davis on a couple FireWire drives and is quickly transferred into SeisMic's RAID array. As the show will be an hour-long broadcast, *Crossroads* producers and artists will weigh in on which songs of a longer set will make the cut. Davis and his head engineer, Steve Johnson, will listen to the recordings and line mix, check out the artist and producer's notes, and put together a first-pass mix, usually unsupervised. "*Crossroads* needs to have a richness to it," says Davis. "It needs to sound live, but never be rough. We will polish it a bit, but generally our main goal is to mix it in a way that puts viewers tenth-row center and, of course, always make it sound like it looks."

For the past few years, as Davis has become more of a supervising audio producer for the show, Johnson has been mixing the show on SeisMic's Euphonix CS2000 digitally controlled analog console. "I honestly believe that the Euphonix is part of the sound of *Crossroads*; there's so much depth and warmth to it," says Davis. "We'll mix onto a Fairlight MFX, which I find to be a really great editing system, and then back into Pro Tools HD3, so we're using some older technology, as well as all the editing capabilities and plug-ins—especially for vocals—in Pro Tools."

Being trusted old hands by this point, Johnson and Davis will do the bulk of their work during this first-pass stage, mixing in stereo and 5.1 surround for MTV's MHD channel. "We mix it discretely in 5.1, but when we're making all of our minute mix decisions, we're monitoring the down-mix in stereo," says Davis. "Generally, we want the viewers to experience this as if they're hearing the best live P.A. they've ever heard, and the way you get that is by mixing with depth."

Johnson and Davis bring depth to their mixes using a combination of compression and

Pictured in the MTV Networks R8 audio truck are, from left, *Crossroads* audio producer/tracking engineer Stan "Quack" Dacus and technical engineer Greg Lankford



## LAYING DOWN "CROSSROADS"

subtle reverb, choosing from TC Electronic's System 6000 and M5000, as well as Eventide's H3000, an old Ibanez reverb and Digidesign's ReVibe plug-in. On vocals, they'll use Universal Audio LA-2A and Pultec plug-ins. "You don't hear the reverbs as much as you feel them," notes Davis, "and that feeling always corresponds with what you're seeing onstage. The drums, for example, need to sit behind the vocals, not to the side. We mix front-to-back and left-to-right."

Appropriate audience levels and placement within the stereo and surround sound-fields will help draw the viewer at home into the *Crossroads* experience. According to Davis, audience mics will typically be placed off to the side of the venue, out of the camera shots. "We always use condenser mics, and we'll point them in at the audience from the sides," says Davis. "We'll use shotgun mics, like the Sennheiser MKH-416s, which have enough rejection when pointed away from the P.A. To get the intimacy of the room across, you really want to hear individual voices, not huge roars of applause, so I've always been a fan of getting the mics in close on the audience. If it sounds too sparse, I can always fix that by laying in or doubling that up with applause



Joss Stone (left) and LeAnn Rimes perform in total duet mode.

from the top or another part of the show."

Working with such legendary vocalists on *Crossroads*, the mixers will sometimes incorporate artist-specific effects. "Robert Plant has an 88-millisecond delay on his vocal," says Davis. "It's just a short little slap echo, but it's been part of his sound for so long, so we mixed that in on his recent *Crossroads* with Alison Krauss," Davis describes. "And similarly, John Fogerty has always had this 45-millisecond kind of triple-slap as part of his vocal sound, so we applied a slight slap-echo effect on his vocal, as well."

After spending up to 10 days on first-pass mixes, SeisMic will upload the stereo mix for

the video editors, who begin sending out the first cuts to artists, managers and producers. Davis and Johnson will address any requested changes immediately and then wait on the editors to lock the show. "We'll get an OMF with a QuickTime video and sync up our 5.1 mixes and conform the show," says Davis. "We'll clean up any dialog issues, do audience sweetening and masquerade edits, and we'll print down to final 5.1 and stereo stems. We send it over to CMT, where it lays back to their HD master and out it goes." ■

Janice Brown is a New York-based freelance writer.

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**"Incredibly Fantastic"**  
-Pro Sound News

**"Amazing"**  
-Tape Op

**"Exceptional"**  
-Audio Media

**"Fabulous"**  
-Future Music

**"Top-notch"**  
-Mix Magazine

World Radio History



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ROYER

**Jim Ebdon**  
FOH Engineer

**Kyle Cook**  
Guitars

**Paul Doucette**  
Guitar/Keyboard

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**Jim Ebdon**

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World Radio History



# NASHVILLE LIVE!

By Steve La Cerra

Any place where there's a lot of live music, there's sound reinforcement, and with all the activity originating from the Nashville Metro area, engineers and sound companies are as busy as the musicians. What's interesting about the Nashville SR industry is not only the *amount* of activity, but also the *diversity* of the business: There is a modest club scene in the Nashville area, plus a few local arena-sized venues, but there are also a large number of major houses of worship, along with full-blown production rehearsal facilities. If that's not enough, the folks we spoke with seem to stay busy providing national acts with tour support, as well as servicing the local corporate community with anything from P.A.-on-a-stick to full-blown concert systems for local festivals.

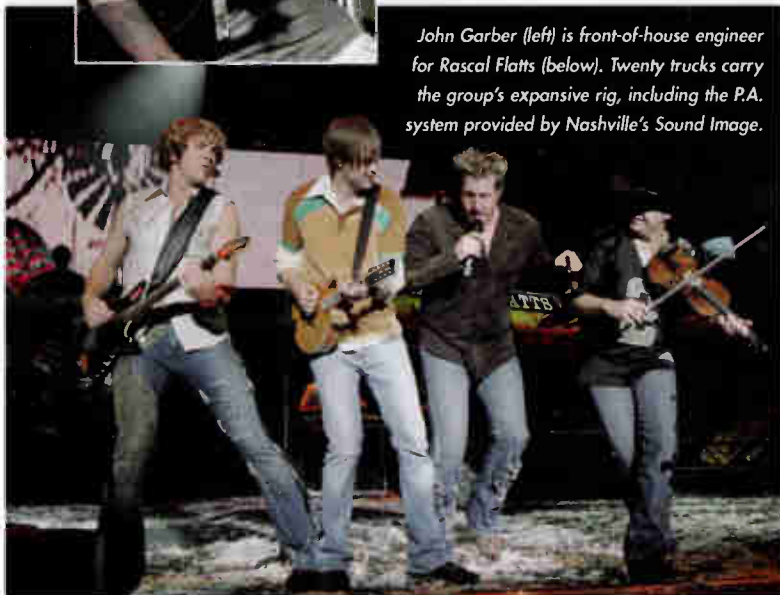
Engineer Jon Garber came to Nashville from South Dakota in 1997, initially "to do some studio work," he explains. "Then Everett [Lybolt, Sound Image general manager] hired me to work with Brooks & Dunn as a system engineer. That lasted for three years, and then I worked with Toby Keith and Brad Paisley. About five years ago, I started working as the front-of-house engineer for Rascal Flatts, and it's been a great ride. We started off with one truck and now we carry full production."

When Garber says "full production," he's not kidding. The Rascal Flatts tour currently travels with one of the largest systems in the world, with 20 trucks on the road. The Sound Image-provided P.A. system includes Studer Vista 5 consoles for FOH and monitors, accommodating 80 inputs from the stage. Garber's P.A. features 132 JBL VerTec cabinets for



PHOTOS: STEVE LEVININGS

John Garber (left) is front-of-house engineer for Rascal Flatts (below). Twenty trucks carry the group's expansive rig, including the P.A. system provided by Nashville's Sound Image.



**LOYAL ARTISTS,  
LONG TOURING  
SEASONS HELP  
SR BUSINESS  
THRIVE**

highs and lows, plus another 12 Wide-Line Sound Image cabinets for front-fill powered via Crown iTech 8000 amps.

For Nashville's Sound Image, Rascal Flatts is one of many top touring clients, which also include Brooks & Dunn, Paisley and Keith. According to Lybolt, "There's a lot going on in country music. The Nashville machine develops an artist whose career could quite possibly span a lifetime. How is that for longevity? Everybody benefits from that. For example, I have a 14-year relationship with Brooks & Dunn, and they were going at it for a few years before I came to town. I've been with Rascal since they got their record contract. I think after five years, they were doing arenas and now they'll even be doing a few stadiums.

"There's a high level of customer loyalty in this area, and that's a good thing," Lybolt continues. "Once an artist signs up with you, they tend to stay with you for the long haul. These same bands tour every year. It's consistent business year after year after year, which is fantastic for us, as well as the other sound companies. I put gear on the road in the second week of January and most of the time it comes home right before Thanksgiving. Some of it stays out until right before Christmas. Fifteen years ago, I had no idea that it would be this good."

Ralph Mastrangelo, executive VP of touring for Clair-Showco Nashville, has also noticed consistent, long-term business in the Nashville-based touring market. "Many Nashville-based artists historically have made their living touring," he says. "Even when record sales were high, they would tour 40-plus weeks a year. They don't go away for two years, creating a situation where personnel changes and you have to re-establish your relationship. Unless they can't afford to carry gear anymore or something strange happens, it is a constant, loyal client base for everyone."

According to Mastrangelo—whose company's clients include Tim McGraw, Keith Urban, Carrie Underwood, Alan Jackson and Martina McBride, just to name a few—"Some of

the more established artists don't have to work as hard or as much, but the majority of acts are out the majority of the year. 'Weekend warrior' is the term everyone uses here because other than maybe going into Canada or the West Coast for a week or two, these guys are in and out every week. That actually makes maintenance quite easy: If they have a problem with a piece of gear, they can run it through the shop when they return home, we'll take care of it and turn it around for the next weekend without missing a beat.

"Some of the artists that normally carry full production leave the P.A. home for the summer when they do the fair and festival circuit, which has become an increasing part of their schedule," Mastrangelo adds. "These are considered 'soft-ticket' performances, where admission to the concert is part of admission to, say, a state fair. With so many acts on the road all vying for fans' disposable income, it's become more difficult for some acts to sell a hard ticket. Playing fairs may not seem to be a sexy market for an artist, but it's very lucrative and the level of production has been stepped up over the past few years."

Ken Porter, president of Spectrum Sound, agrees with Lybolt and Mastrangelo regarding the long-term nature of relationships built with Nashville artists. "Our business has been consistent," Porter explains. "Acts like Wynonna and Kathy Mattea work with us year after year, and their needs remain pretty much the same. Nashville is a weird market because even though a lot of the artists call it home, those who live here don't necessarily *play* this town. There is not a lot of one-off market in this town. One of the bigger reasons Nashville has remained strong is that you are in the middle of the country: You're about 12 hours' driving distance to get into the New York area, or into Wisconsin, Kansas City, Dallas—even down to Orlando. You can put the band in a bus and get to just about any of the major music markets.

"There's a little shopping center that I pass on the way home from here every night," Porter continues. "On Wednesday or Thursday nights, I'll see five or six tour buses in that parking lot. That's the leaving spot. Guys park their cars, run into the grocery store, grab some snacks for the bus and then head out. They might leave on Thursday night, and by Friday morning they'll be in Dallas, then do another two or three cities and drive back home by Monday morning."

#### RACKS AND STACKS, PLEASE

Although many top-level acts have the luxury of carrying full production, some mid-level acts don't. For that reason, many will carry a monitor package that includes a desk, snakes, a mic package and possibly stage wedges, and rely upon the promoter to provide the rest.

"A lot of my clientele is in the middle



Spectrum Sound's Ken DeBelius sees more work in church installs.

market," reveals Porter, "and what I frequently put out is a monitor system or maybe board groups and personnel. Not too many people are carrying the whole package because they want to avoid the transportation costs. In this town, a lot of acts go with in-ears due to the diversity of venues in which they perform. They'll do festivals, fairs and theaters, even rodeos. They're in and out of a lot of venues and in-ears provide consistency for them. We might add a drum sub or a couple of subs for side-fill and one of the smaller digital desks like a [Yamaha] PM5D or M7CL, or maybe a Digidesign Profile."

Michael Allen, operations manager at Hugh Bennett Productions, observes a similar trend. "Over the past couple of years, more acts are using in-ears and a fair amount of them are carrying a digital console and a mic package. It seems to me that they are very concerned with what is happening onstage, especially if they're using in-ears instead of wedges. They need consistency, so a small-format digital console makes a lot of sense. The mid-level acts that aren't big enough to carry full production embrace in-ear technology because it's compact and doesn't add a lot of weight to a truck or trailer the way stage wedges do. Every now and then, you'll see a couple of wedges up front supplemental to the in-ears so they can get the feel in the low end. A lot of artists like to use sidefills or at least subs onstage for the same reason, and a drum sub is pretty much a necessity."

#### DIGIT-ALL

As in the rest of the touring market, the digital console has become the norm. Porter says he "hasn't done an analog desk in years." Lybolt concurs, observing that "groups with larger budgets are moving toward the high-end consoles such as the Studer Vista and DiGiCo D5. I do believe there's even a Midas XL8 out with Kenny Chesney, which I believe is the first XL8 in the area. There's a lot of Yamaha and Digidesign products out, all of which are good and serve their purpose. A lot of it is budget-driven. Those acts that are on a tight budget are on a Yamaha M7CL, while those with a mid-range budget will have the PM5DRH. It's upward and onward from there."

Though Lybolt agrees that many artists are not carrying racks and stacks, he does see that those who have the budgets are "getting into line arrays. There are probably around 10 acts here that carry stacks and racks," he says. "Out of those I have four, and three of them carry line



From the road to Meyer Sound's Nashville office: Buford Jones



Sound Image's Everett Lybolt

arrays. Toby, Rasca and Brad Paisley carry VerTec line arrays, and Brooks & Dunn are basically on the Sound Image G5 proprietary carbon-fiber speaker system. They have been on that for 13-plus years."

Burford Jones is the touring liaison manager and manager of the Nashville office for Meyer Sound, and notes that "many artists are going out with only console packages. Speaking as a touring engineer for many years [Pink Floyd, David Bowie, Eric Clapton and George Harrison], inconsistency is the biggest issue because dealing with

a different sound system everyday can be somewhat frustrating. Meyer does offer consistency in this market as self-powered Meyer systems sound the same no matter where you get them.

"On the subject of 'stacks and racks,'" Jones continues, "some install rigs are much better than in the past. Back in the 1970s, if we heard 'installed system,' we thought of a public-address system rather than a true high-quality music system, but now installed systems are much more capable of handling music and can be considered as an option."

Meyer's presence in Nashville is highlighted by its involvement in Soundcheck, a multiroom rehearsal facility that features Meyer sound systems in each room. "It's a showcase of pro audio gear that we have organized. Sometimes it is recognized as an 'ongoing trade show.' And that's what it is. Engineers can come in, and say, 'I hear you have, for example, the Meyer MILO line array here.' We can show it to them, but more importantly they can hear it in action. As a hands-on guy, I know you can look and talk about it all you want, but you really have to get your hands on the system and drive it yourself." For a profile of Soundcheck, see page 62.

**THE HOWS, WHYS OF INSTALLS**

Although a lot of Nashville action is in the touring field, the install market is also very active. As Spectrum Sound's sales manager, contracting, Ken DeBelius explains, "The Spectrum Sound install department focuses on performance audio systems, particularly for larger venues. While this department initially did some 'paging/announcement-type systems' 10 to 15 years ago, our main market is now the 1,000-plus seat church or theater. Obviously, the HOW [House of Worship] market has found itself needing performance audio systems, and this trend continues to proliferate, even to the point that the typical 'small-town' 300-seat church is calling for an audio system to support contemporary worship. Of course, the budget is not always there for this small a venue, but it is surprising what people will step up to.

"In Roanoke Rapids, North Carolina, Spectrum designed and installed a complete audio reinforcement and monitor system in a new 1,500-seat performance room, the Roanoke Rapids Theater," DeBelius continues. "We used d&b audiotechnik Qi1 line arrays, Yamaha digital mixing consoles, JBL wedges and Sennheiser wireless in-ear monitors. The monitoring system is set up so that the

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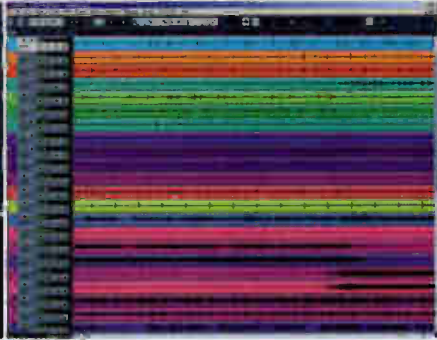
The advertisement displays a collection of Groove Tubes audio gear. At the top, a row of microphones is shown, including the Hardtop, Convertible, GT30 Tube, GT40 Tube, GT50, GT60 Tube, GT57, GT67 Tube, MD1B FET, MD1B Tube, VELO-8 Ribbon, and VELO-8T Tube Ribbon. Below the microphones are three preamp units: Glory Comp, SuPRE, and VIPRE. On the left, a portion of 'The Brick Tube Pre' is visible. A large, detailed image of a microphone is on the right side. The Groove Tubes logo is in the bottom right corner.

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wedges and in-ear monitors may be easily sourced from either FOH or from a separate portable monitor console in a custom rolling rack manufactured by our Spectrum Case shop.

"Although most of our installs are out of state, we have completed several large successful jobs here in the middle Tennessee area. Renovation/upgrade of audio reinforcement systems 10 years and older is a large part of what we do. With regard to the equipment, we tend to embrace the newer technology, provided it sounds good, makes sense and provides real value for the customer, and not because it's the latest fad. We will use both line array and point-and-shoot loudspeaker technology, depending on what the particular venue really needs for appropriate pattern control. Except for a very few smaller modest installs, most of our designs lean toward digital mixing solutions.

"Renovations to the audio systems at churches are always a lot of fun; we are presented with the challenge of getting them back up and running from one Sunday to the next. At Calvary Chapel Golden Springs in Diamond Bar, California, we renovated portions of their existing au-

dio system. This worship facility, which hosts up to 12,000 people on a weekend, was not originally a purpose-built worship space, and the seating arrangement around the stage is more than 180 degrees. Designing a suitable loudspeaker system so that we had smooth resultant coverage was quite challenging. After doing some preliminary engineering work in EASE and demonstrating several options of loudspeakers, technical director Robert Rodriguez chose d&b audiotechnik. In the final implementation, we used a combination of Qi1 line arrays, supplemented by Qi10 and Qi7 fills. Robert also chose to replace their ailing analog console with the Digidesign VENUE."

Allen notes that Hugh Bennett Productions is involved in a fair amount of corporate work that runs the gamut "from outdoor tent events like a ground-breaking to a church convention. It's very broad and can involve anything from P.A.-on-sticks to a full-blown 'we have to cover 15- or 20,000 folks' P.A. During what used to be known as Fanfare, we'll set up a stage and an audio system in the parking lot of the Hard Rock Café. That stage will stay there for a few days, and it's 'blow and go'

like you'd expect for a festival-type situation. The upside about Nashville is there is so much customer loyalty that we don't step on each other's toes. Every sound company that is my size or bigger—and most are bigger—we all know each other and cross-rent from time to time; we all stay busy and usually stay out of each other's way."

Although he doesn't live in Nashville, Dirk Durham, who has been the FOH engineer for Toby Keith since 2000, sums up the climate in Nashville: "Nashville has a family atmosphere. We rehearse with Toby at the Gaylord Center, and the community is very accommodating. If there's anything we need, if Sound Image doesn't have it, then it can't be had. Toby treats his people like family. I'm on a salary with Toby and although I might not make as much *per show* as some engineers, I work and get paid consistently. Toby recently bought a house in Oklahoma for his bass player of 16 years as a sort of 'thank you' for his loyalty, service and friendship over the years. That's the kind of people you'll find in Nashville." ■

Steve La Cerra is Mix's sound reinforcement editor.

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# SOUNDCHECK NASHVILLE

By Sarah Benzuly

Soundcheck Nashville does tour pre-production on a grand scale. Not only can clients book video and full-on production rehearsals, but they can also come in and talk endorsement deals with the likes of Shure, Meyer Sound, Digidesign, DiGiCo, Fender, etc.; read the latest issue of *Tour Guide*; book trucking with Stage Call Trucking; reserve lighting with UpLight Technologies; work a deal with Tour Supply Inc.; staff a project with Crew One Productions; and purchase or service a road-worthy Hammond B-3 at Nashville Pro Hammond—all under one roof.

When Soundcheck was opened in 1992 by Glenn Frey (of The Eagles) and his longtime roadie, Bob “Norton” Thompson (so nicknamed because his father was Art Carney), the goal was to improve upon Thompson’s L.A.-based Third Encore rehearsal facility. Eleven years later, Soundcheck is owned by Ben Jumper, who has 35 years of industry touring experience under his belt.

“I had an office in Soundcheck,” Jumper recalls. “One day, I was walking down the hall, Bob pulled me aside and he started talking to me. He had had a hip replacement and a knee replacement the previous year, and he said, ‘Ben, I’m ready to throw in the towel. It’s a great business, but I’m just tired and don’t want to do it anymore. Would you be interested in buying Soundcheck?’ And I thought he was kidding, and I blew him off. I got a call maybe three, four weeks later from a mutual friend, who said, ‘You blew Bob off and he was kind of miffed at why you did that.’ I explained that I had no idea he was serious. I said I’m absolutely interested and I set up a meeting with Bob the next day. Four months later, we closed the deal.”

Since then, Jumper has not “blown off” any of his dreams for Soundcheck, keeping the same employees since the day the doors opened, increasing the number of rooms from four to nine and upping the number of lockers from 160 to 217. In probably one of his most significant business moves, Jumper has also brought in industry

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offices for the likes of Ed Beaver Guitars, Peavey, Stage Call Trucking, Backstage Custom Cases, video production company Moo TV, Tyler Truss and American Stage Company—just a few names from an ever-growing list.

“When I took over,” Jumper recalls, “all these rooms had mix-and-match sound systems—very low-end, no digital. It was my goal to raise the bar and bring everything up to date. And, amazingly, Meyer really stepped up and to date have put \$1 million-plus worth of sound in all the rooms. So many of the industry people, if they’re not there to rehearse, they’re there to get something out of their locker, they’re there to meet with Meyer or Peavey or Fender.”

“In all of the rooms is endorsement gear,” he explains. “Meyer is able to showcase all their products that they have for live sound. We give [each manufacturer] a certain



Ben Jumper (right) with general manager Jan Greenfield



Rehearsal Room A (80x100x26 feet) hosts a Meyer MILO system.



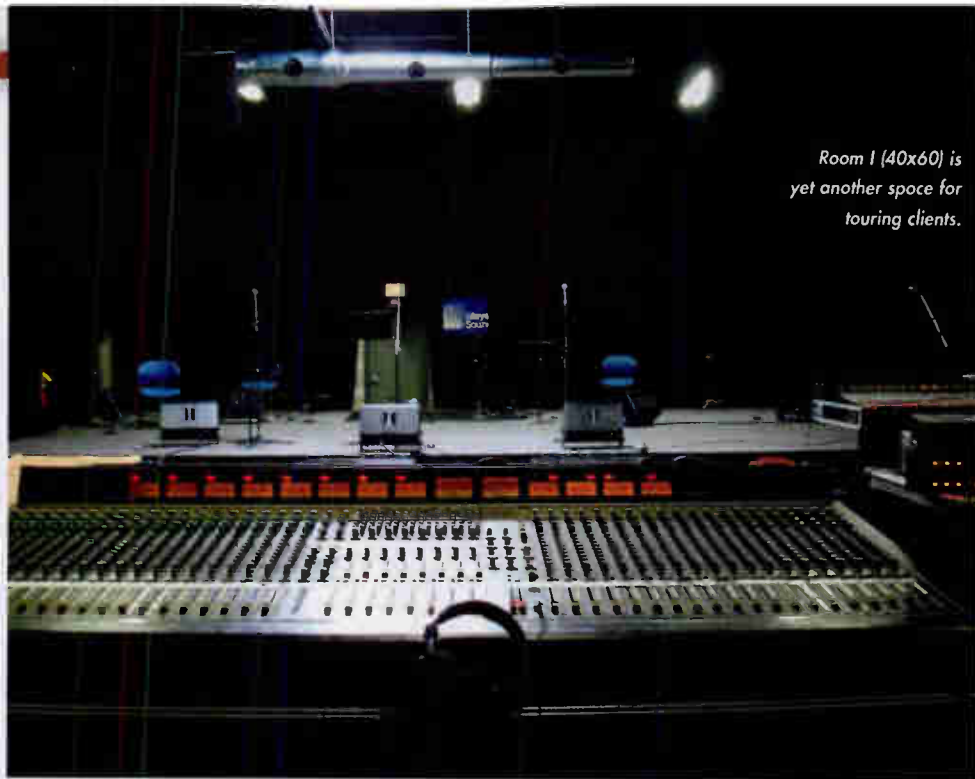
amount of time every year to do seminars, classes, sales meetings and client demos. Instead of sending a system out to do a demo for a client, they can fly the client to Nashville, bring them to Soundcheck and let them compare all of their systems. Our in-house sound engineers have given Meyer feedback that has made some positive changes in their products. I can't tell you how good it feels to have those relationships, and usually those relationships cost a lot of money; in this, there's no money to discuss. We help each other."

Soundcheck also has the Southeast's largest backline, which they supplied to the CMA Awards show for the first time this year. That job included bringing out two 53-foot tractor-trailers full of instruments. "If any of our stars

come in—let's say Vince Gill or Kenny Chesney—and we've got a new amp or guitar or piece of equipment, we'll stick it in their hands, and say, 'Hey, we just got this in. Check it out. Tell us what you think,'" Jumper adds.

On February 15, the company celebrated the opening of 740 Cowan, a 47,000-square-foot facility—just a few minutes' walk from the original venue—that includes five studios, UpLight Technologies and new staging company American Staging. "And we have a new goal for next year," adds Jumper, a man seemingly unwilling to rest on his laurels. "We are going to build a 160-by-120, 70-foot-tall complete soundstage for film and TV, as well as being a full-production rehearsal (space).

"I'll give you an example: I've got Kenny Chesney's band in rehearsing at Soundcheck right now. There is a large rehearsal room at the Sommet Entertainment Center, and Kenny's people are putting the full production rig in that room and the band is



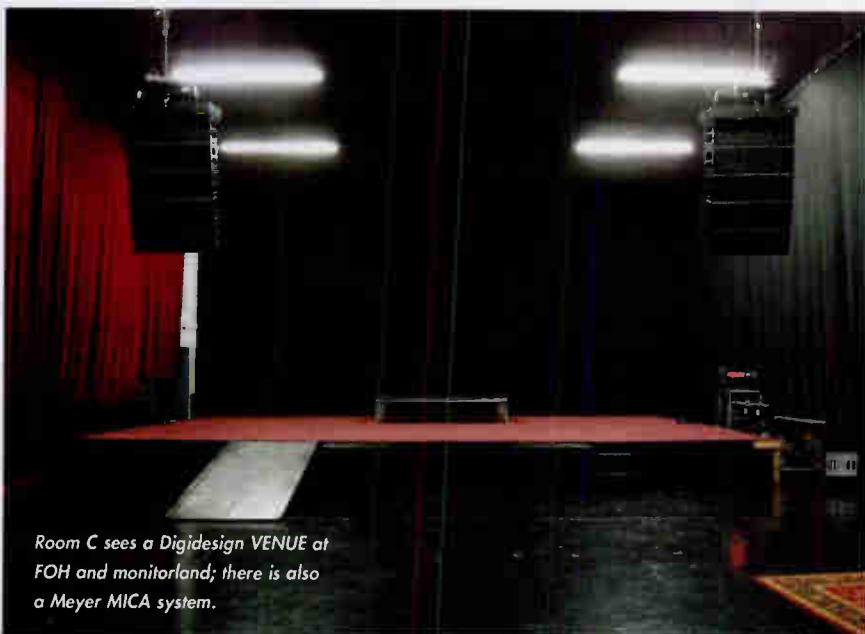
Room I (40x60) is yet another space for touring clients.

rehearsing at Soundcheck. Once we get the production together, Kenny will come over, rehearse the band a few days and then go and do a full-production rehearsal. Well that full-production facility is closing and is going to turn into a 3,500-seat theater, so there will be no place for full-production rehearsals in Nashville anymore, and there were 100 days of full-production rehearsals in Nashville last year.

"When the Nashville Network closed, the soundstages that were there became office complexes, so there's only one real soundstage in Nashville now and that's the Opry House stage, and it stays so booked up with Grand Ole Opry Live and everything there that it's not really usable as a soundstage. We want to bring that to Soundcheck. We are purchasing the property, and in the process of doing that I just met with the new director of the Tennessee Film Commission and we're going to launch this project. And I hope to have it open within a year. That might be a little bit of progressive thinking, but I think it can be done."

And while Jumper has these other projects steamrolling ahead, his main concern is keeping Soundcheck as busy and as first-class as possible—with the help of his longtime employees, who, to him, feel more like family. This past year, the facility has hosted Bon Jovi, Robert Plant and Alison Krauss, John Fogerty, Neil Young, Black Label Society, Elvis Costello, Hank Williams Jr., Mute Math and many other top-selling touring acts. "We've started creating a lot of interest because Nashville is such a cool place," Jumper enthuses. "It has the amenities and restaurants that L.A. and New York have, but it's much easier to get into and get around, the hotels are cheaper and it's really the 'Third Coast.' It's a destination not just for country music, but for all musicians." ■

Sarah Benzuly is the group managing editor for Mix, EM and Remix magazines.



Room C sees a Digidesign VENUE at FOH and monitorland; there is also a Meyer MICA system.

# A TOUR OF NASHVILLE VENUES

LIVE

By Sarah Benzuly

The streets of Nashville are lined with intimate venues that host a wide range of artists wanting to be seen—and heard—as they showcase their talent for an approving audience while hoping to make a business deal or two. This is Music City, after all. On the flip side, Nashville is also home to much larger venues, where multi-

Platinum artists regularly make stops on their world tours. In addition, the locals can be found taking in the sounds of the symphony or opera, catching the latest hockey game or stopping in at a local club to check out local bluegrass or country acts. Here's a guided tour of some of Nashville's finest live performance facilities.



## SCHERMERHORN SYMPHONY CENTER

Schermerhorn Symphony Center—home to the Nashville Symphony—sees more than 100 classical, pops and special concert events each season. Its shoebox-designed, 1,844-seat Laura Turner Concert Hall features natural interior light through 30 special soundproof windows. An automated system of movable banners and panels located around the hall provides adjustable acoustics. For the pops concerts and client events, gear includes a JBL 4887 line array with EAW JF80, UB82 and UB12 units; amps include Crown CTS Series. At FOH sits a Digidesign D-Show console with BSS London Blu-80 processing. For classical concerts, four EAW DSP speakers are on the organ case for general voice reinforcement with an under-balcony system and a small Midas Venice board.

## RYMAN AUDITORIUM

The venerable Ryman first opened in 1892. With the coming of the Grand Ole Opry show in 1943, the Ryman became the hub of country music.

In 1974, the Opry moved to its current home by the Gaylord Opryland Resort and Convention Center and left the Ryman vacant. It was not until 20 years later that the Ryman was restored with the help of an \$8.5 million renovation by Gaylord Entertainment. At FOH stands a Yamaha PM5DRH Version 2, including a MY8-ADDA96 card and the Wave Effects program slot card with Apogee Big Ben clocking. The P.A. comprises JBL VerTec 4888 (L/R), 4880 (center), 5332-64 (balcony side), 4887 (deck speakers), Marquis MS26 (front-fills and extreme under-balcony) and 4212-64 (under-balcony). All speakers are powered by Crown amps, with speaker management handled by a wireless Lake Contour system. At monitor world is a Yamaha PM5D and Clair Bros. 12 AM wedges. An audio recording room has a 56-channel Amek Langley recall console, a Mackie CR1604 submixer, dbx comps, Yamaha REV7 reverb, JVC DAT machine, Denon cassette decks and Electro-Voice Sentry 100A monitors. Also in the room is a dual 2GHz AMD 64-bit PC with 16GB memory running Steinberg Nuendo 2.1.





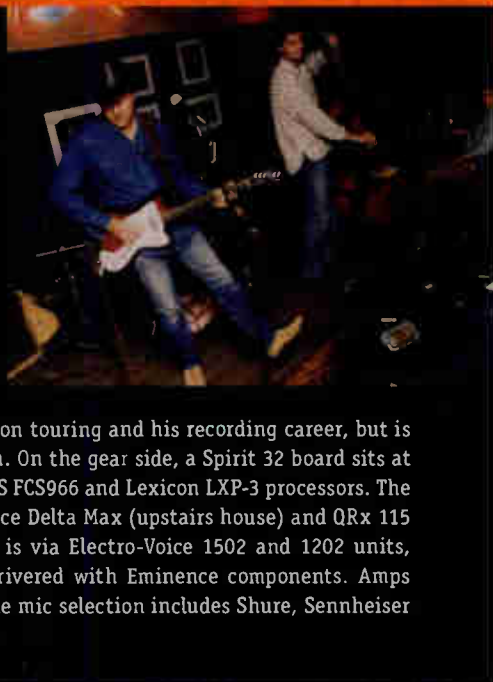
## TENNESSEE PERFORMING ARTS CENTER

The Tennessee Performing Arts Center (TPAC), located in the James K. Polk Cultural Center, includes four performance spaces: Andrew Jackson Hall (2,472 seats), James K. Polk Theater (1,075; pictured), Andrew Johnson Theater (256) and War Memorial Auditorium (1,661). In addition to being home for the Nashville Ballet, Nashville Opera Association and Tennessee Repertory Theatre, TPAC also presents a series of Broadway shows and special engagements, and administers an education program. The James K. Polk Theater features a Meyer center cluster with three UPA-2C cabs fed from a single processor and two UPA-1C cabs mounted on the second beam with a separate processor. Each zone is delayed and EQ'd separately. Crown amps are used throughout. A Yamaha PM3500-44 sits in the control room on the orchestra level.

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## BOURBON STREET BLUES & BOOGIE BAR

In downtown Nashville's historic Printers Alley sits Bourbon Street Blues and Boogie Bar, which has hosted a who's who of fine blues players. Patrons enjoy the full dining selection while listening to the house band; Stacy Mitchhart recently left



that band to concentrate on touring and his recording career, but is being kept in full rotation. On the gear side, a Spirit 32 board sits at FOH, complemented by BSS FCS966 and Lexicon LXP-3 processors. The P.A. comprises Electro-Voice Delta Max (upstairs house) and QRx 115 (downstairs); monitoring is via Electro-Voice 1502 and 1202 units, with all cabs custom redrived with Eminence components. Amps are QSC and Behringer; the mic selection includes Shure, Sennheiser and AKG models.

## SOMMET CENTER

In 2006, Durrell Sports Audio Management (Nashville) announced a \$500,000 audio upgrade and seven-year responsibility contract for the Gaylord Entertainment Center, now known as Sommet Center. The new system comprises 12 main cluster hangs within the bowl of D.A.S. self-powered Aero 38 line arrays and Aero 218 hard-mounted subs; amps are QSC CX-1102 and CX-1202V. The new control room has a Soundcraft MH-4 48-input console. Audix wireless mic systems are used throughout the 19,000-plus-seat facility, which is also home to the Nashville Predators (NHL) and regularly sees top acts performing to sold-out crowds.

## NASHVILLE MUNICIPAL AUDITORIUM



Built in 1962, the Nashville Municipal Auditorium multipurpose facility was the city's primary indoor sports and concert venue until the Sommet Center opened. It currently handles a multitude of events, including concerts, circuses, auto shows, trade shows and much more, including numerous religious events. The venue comprises a 9,654-seat arena and a 63,000-square-foot exhibition hall. The Electro-Voice speakers are constructed in a cluster at one end of the arena floor and the sound system is used for sporting events. At FOH sits a DDA CS3 board; processing complement includes Merlin ISP, Klark Teknik DN8000 and E-V EQ and crossovers.

# AUDIO FOR THE AGES

By George Petersen

No trip to Nashville would be complete without a visit to the Country Music Hall of Fame and Museum (CMHOF), which in 2001 relocated to a gleaming, modern 130,000-square-foot complex that's truly the crown of downtown Nashville. Every day, thousands of visitors make the pilgrimage to view exhibits on the history of country music and marvel at the thousands of priceless artifacts on display, such as performers' instruments, costumes, accessories and more.

But the real treasure is not on view to the public. The Museum's Frist Library and Archive has more than 200,000 recorded discs, 5,000 films and videotapes, and hundreds of audiotapes. It's a monumental collection of country music's legacy that's unrivalled anywhere in the world.

Heading the library's audio lab and responsible for the collection's archiving and restoration is its recorded sound and moving-image curator, Alan Stoker. In many ways, Stoker—who has been with the audio transfer facility since it was founded in 1980—is ideal for the job, having music in his blood. His father, Gordon Stoker, was a member of The Jordanaires; he put a 4-track studio in the basement of the family home in the 1970s, where Alan Stoker put in countless hours learning the craft of audio engineering.

Later, Alan Stoker became the CMHOF off-site manager of the historic RCA Studio B facility, which CMHOF acquired in 1977 and restored. Studio B is now part of the museum tour. "When the Hall of Fame took possession of Studio B, the staff here knew that I had studio experience and I was the first off-site manager of Studio B," Stoker recalls. "Later, when the audio lab transfer facility was built, I met Arthur Shifrin, who designed and built the facility for the Country Music Foundation. He thought I had the right skill set for the job, and I've been here ever since."

The audio lab is located on the museum's third floor, but it's hardly hidden away. "We're behind the glass, so people taking the tour of the museum

can look in and watch us working in the transfer facility area," says Stoker.

Although his workload includes creating audio for exhibits and occasional CD projects, "We're not really set up to be a high-end mastering facility," he explains. "Most of the things I deal with are 78 rpm or other disk transfers. We have one of the best country collections in the world, and we're constantly adding to it and adding better-quality copies. Joe Palmaccio does a lot of our outside mastering—we worked together on *Night Train to Nashville: Music City Rhythm and*

## PROTECTING AMERICANA'S LEGACY AT THE COUNTRY MUSIC HALL OF FAME

*Blues, 1945-1970*, which won a Grammy Award for Best Historical Album."

### ANOTHER DAY ON THE JOB

"A typical project begins with finding the best-condition disk we have, either from our collection or from collectors we know who might have a better-quality disk," Stoker explains. "Then I clean the disk by hand using Ivory dishwashing liquid. I get the disk wet, put one drop on it and clean it using a lint-free cloth or a Parastat record brush." As the lab is part of a nonprofit foundation, budgets are stretched; they currently have an older Pro Tools MIX24 system and hope to upgrade to an HD rig. Stoker's long-term wish list includes a state-of-the-art Keith Monks record-cleaning system, which would really speed up the restoration process.

After cleaning is the critical transfer stage, for which Stoker uses a Technics SP-10 MkII turntable—the model that has 33, 45 and 78 rpm speeds and an arm that's offset enough to handle vintage 16-inch transcription disks. "I do most of my transfers with the disk wet and pick from seven styli to find the one that sounds the best. I'm using a Shure SC35C cartridge. The stylus bodies are made by Shure, but the diamond tips are fitted by Expert Pickups in England," Stoker notes.

The SC35C is a stereo cartridge, and transfers are made as 2-channel, dual-mono files. "On 78s and transcription disks, one side of the groove is often quieter than the other, and usually it's the inside," Stoker says because most of the groove wear is on the outside groove wall as the rotation of the disk tends to throw the stylus to the outside. "We transfer mono recordings as 2-channel mono and pick the quieter side, or there may be a pop or click that's on one side and you can cut and paste between the two sides."

All transfers for archival projects are made flat with no RIAA or other curves through a KAB phono preamp. "On that first pass, we don't even de-click—it goes straight to the file, with no front-end processing at all. We also make

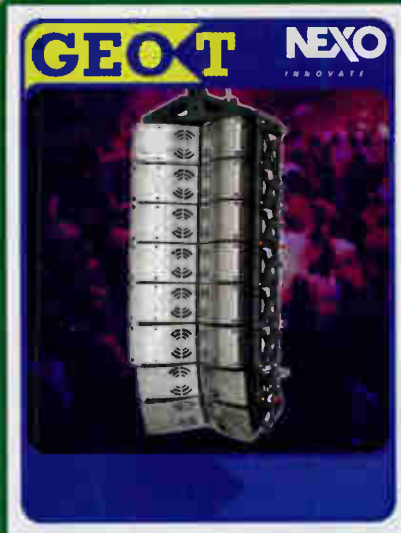
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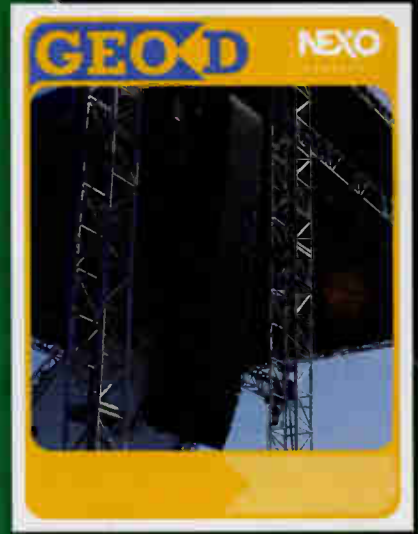
Alan Stoker in the audio lab



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acters, but that's not large enough for all the information we need, so we insert a UMID [Unique Materials ID], which is linked to the file. Currently, we're storing to LTO drives, although we have plans to also store to a SAN or server system, which is the last piece of the puzzle that we haven't added yet."

With all the emphasis on restoration and archiving, it's perhaps surprising that Stoker also makes hundreds of MP3 files. "These MP3s reside on a server that researchers and in-house staff can access through our 'digital audio jukebox.' They can search through keywords and find all the transferred transcription performances of someone like Johnny Cash and hear tracks from the MP3 player on their desktop. There aren't any track markers so they might have to wade through an entire 15 minutes from a transcription disk, but it works pretty well for research purposes."

## REINDEER RESCUE

Asked about one of his most memorable projects, Stoker says that he was once contacted by CBS when the network was looking for a version of Gene Autry's 1949 "Rudolph, the Red-Nosed Reindeer" and the only copy they had was a re-channeled-for-stereo version from the '60s. "For the CD reissue, they asked us to copy a clean 78 from our archives," Stoker recalls. "Their original mono master had been tossed out in favor of a 'fake stereo' master. You'd be surprised how often this happens. Ironically, record labels spend a ton of money protecting their rights to materials, but sometimes won't spend 10 cents buying a new box to put the tape in." ■

*George Petersen is Mix's executive editor.*

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# LABEL-STUDIO COMBO

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Not everyone can be Jimmy Bowen or Tony Brown, but not everyone needs to be. The record business offers more definitions of success than radio has music genres. The trick is to find that place where you're doing what you love, you're true to yourself, you're challenged every day, but you're still making a living.

Take Ricky Skaggs. About 15 years ago, he realized that the generation of "young country" artists who were coming up had little to do with his style of playing. He asked himself whether it made any sense for him to carry on as if nothing in country music had changed since he'd started scoring hit songs and taking home Grammys in the early 1980s.

"In 1996, Mr. Monroe passed away," Skaggs explains, "and I looked at my place in country music at that time—what was going on in the fabric of country music on the radio and at the labels. I felt like for me to compete, I would have to change my sound to be more pop. Instead, I decided that I could serve the music community better, if I went back to the music I grew up playing—bluegrass—because that was the foundation of everything I'd been doing."

So Skaggs did what we all do in lean times: He scaled back. He started using a smaller touring band, which meant fewer transport vehicles and a smaller crew, and he told his agent to start booking him at bluegrass festivals instead of

**OUTSIDE COUNTRY'S  
MAINSTREAM,  
SKAGGS FAMILY AND  
COMPASS RECORDS  
MAKE ROOTS MUSIC  
ON THEIR TERMS**

we would have something to sell on the road."

Skaggs was still signed to Atlantic at the time, but Atlantic passed on *Bluegrass Rules*. So Skaggs made a deal for Rounder (distributed by MCA/Universal) to release the album with the imprint Skaggs Family Records ([www.skaggs-familyrecords.com](http://www.skaggs-familyrecords.com)). "We sold over 200,000 copies—an independent record on an independent label," Skaggs says. "So we said, 'Well, gosh, let's do another record.'"

And so Skaggs Family Records was born; it's now wholly owned by Skaggs and his wife and label mate, Sharon White, of bluegrass gospel group The Whites.

Meanwhile, around the same time, future Compass Records ([www.compassrecords.com](http://www.compassrecords.com)) president Garry West was on the road playing bass for Michele Shocked. Also on the tour was West's then-girlfriend, the talented banjoist Alison Brown. "While we were on the road, touring in Europe, we talked about what we wanted to do," West recalls. "We knew we didn't want to just ride someone else's bus forever. We wanted to have creative input into the whole process."

West says that he and Brown "literally drew this thing on a paper restaurant napkin that we called 'The Good Life,' and that meant, in terms of our creative goals, a studio and a publishing company, as well as the performance and recording part of being musicians ourselves."

West and Brown weren't household names with multiple Grammys and Number One country hits on their resumés like Skaggs had when he went into the label business, but they did make a very able team. West had already been moving in the direction of production when he got the call from Shocked; he'd been producing local blues and R&B bands in the hopes of licensing the recordings to European labels whose demand was good for those American genres. "And fortunately for me, Alison is the most overeducated



Group effort: Compass Records owners Alison Brown (far left) and Garry West (seated at front) work side by side with employees and artists.

country dates. "We were making the same money playing these bluegrass festivals that we had been playing country music shows, but I had six or eight fewer people on the road and we only needed one bus instead of two. It was a smart thing to downsize and simplify my life—but when we went to these bluegrass festivals, we didn't have a product to sell to fans. That's when the guys and I went into the studio, and on my dollar recorded an album called *Bluegrass Rules* so



banjo player in the world," he says. "She has a Harvard degree and an MBA from UCLA. In fact, she'd worked for an investment bank for a couple of years before she left all of that to play banjo with Alison Krauss. We realized we really complimented each other, and we still do."

West and Brown's Compass Records became a home for roots and world-music artists of all sorts, whether they're into bluegrass, Americana, rock 'n' roll, blues, jazz, Celtic or a fusion of styles.

### IT'S A STUDIO AND A LABEL

Compass Records' early releases included Kate Campbell's first four releases and four from bassist Victor Wooten. "Victor's first album was a complete solo bass record," West says. "No performances by anyone else. Other people were skeptical, but we believed it could succeed. Victor is a remarkable artist and he needed to be represented and considered as accessible, marketable and as meaningful as anything else. That was, and is, the passion we brought to it."

Several years and 200 releases later, Compass moved into its current home just off Music Row. "We bought the former Glaser brothers' publishing company building and studio," West says. "My understanding is they built the studio with the publishing money from 'Gentle on My Mind.' Waylon Jennings was a partner in that company and he had an office here and made some songs that ended up on *Wanted! The Outlaws* here; he made his first Gold record here."

Chuck Glaser's former office is now the room where West conducts Compass Records' business. It's on the same floor as the studio, a 1,800-square-foot space that includes a tracking room with iso booth, piano/keyboard room with two additional isos and a Pro Tools HD-based control room. "We have a nice complement of outboard and mics—nothing too extravagant, but everything's serviceable," West says modestly. "We have a great, really clean, short signal path, too; stuff just works."

"The studio has a really natural, open, acoustic sound that I love and works really well for acoustic music," says engineer Erick Jaskowiak, who has been Compass Studio's staff engineer for 4 years. "One of the best things about it is a lot of wood in the construction of the room. Before I worked for Compass, I was on staff at Sound Emporium, and I remember that T Bone Burnett once said about Sound Emporium's A room that it was like recording inside the hollow body of an acoustic guitar. I feel like this room is a version of that, as well."

Skaggs Family Records also found its home in a building with an illustrious past. The company purchased a complex that includes the Oak Ridge Boys' former studio, as well as label offices. Skaggs' go-to engineer, Brent King, says the



Label president/virtuoso Ricky Skaggs

control room and gear have been updated since Skaggs acquired the place, but the tracking room is largely unchanged. "It has some nice, old, wormy cypress wood and hardwood floors," King says. "It's just a nice, natural-sounding room. I told Ricky that if you ever update this place, the trick is going to be not to screw anything up."

The studio also provides another revenue stream. It's a commercially available facility offering Pro Tools, 48 tracks of RADAR (Skaggs' preferred digital platform) and Skaggs' impressive collection of mics and outboard. "I'm like a kid in a candy store with his gear," King says.

Both King and Jaskowiak are sold on the benefits of working in a small-label-owned studio. King says, "You're working for the boss, and it's a great home base for him. He always knows what he's going to get, and he's very familiar with his preamps and EQs, and his own mic collection."

"It allows me to know my equipment intimately," Jaskowiak says, "so that no matter what genre we record, I can do it better. If I'm after a certain sound, I'm able to achieve that. It also helps that I really like the styles of music that Compass works on. These are real artists trying to tell their story."

### HANDS ON

One of the tricks for any small business owner is keeping the size of the company in balance with adequate personal attention and control—and knowing when to stop before management becomes micromanagement.

"When we had some other groups on the label, I was trying to produce everything," Skaggs recalls, "and it was killing me. And I'm not sure they were getting everything they wanted. Blue Highway was one of the groups, and I loved working with those guys; they were so talented. But I think that sometimes I can be a good friend and a mentor, but do artists really want to be working in the studio with me making all the decisions? I had to weigh those things. I realized that maybe I just *thought* that they were expecting me to do all that stuff. Now I've backed down a bit from producing because I've got more on my plate now than I can honestly say grace over, so it's better for other bands to let me executive-produce from a distance."

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Compass' catalog now includes upward of 250 releases, and West has acquired rights and/or assets to a handful of Celtic labels, including Green Linnet.

"We never had a 'real vision of how big we ought to be," West says. "We just, out of passion and desire, stepped off in this direction of, 'Let's do it right and see where it goes,' which sounds a lot less strategic than business schools would suggest that you be, but that's the way it worked for us.

"One thing we've learned over time is that thinking you need to micromanage every aspect of a business through its growth is a misconception," West continues. "If a company is small enough to micromanage, it's not big enough to serve the needs of everyone involved, whether you've got 10 or 30 artists. A record company has to be large enough and have enough momentum and scope to get the proper attention for its artists and reach the level of efficiency where the tentacles of the company can reach to all the different places they need to. The best way to do this is to hire good people who fit the culture of your company—who hopefully know their jobs, whether it's marketing or sales or publicity, better than the owner does."

**COMPANY POLICY**

Both West and Skaggs have been on both sides of the desk when it comes to label/artist relations. So each of these small-label owners approaches the business side with an understanding of what's reasonable to expect from artists—hard work, promotion and touring—and how an artist they sign should reasonably expect to be treated.

"We're looking for musicians who understand it's a team effort," West says. "You can always achieve more with a great team. And if they have a question, they can ask it without fear that someone is going to control them from an artistic standpoint. And accountability is a key element for us because we're musicians ourselves."

"What makes Skaggs Family Records successful," observes King, "is Ricky's credibility and character. I think people all over this business know that his word is his bond."

"I'm a Christian, and we do Christian business," Skaggs says simply. "I'm honest, we pay our bills. I would rather pay somebody \$1,000 too much than cheat them \$10. And if we make a mistake, we don't look at it as a mistake; we look at it as a life lesson and a learning experience, and we don't get mad or down about it. We get up about it and learn from it and go on. We're that kind of people." ■

*Barbara Schultz is a Mix assistant editor.*

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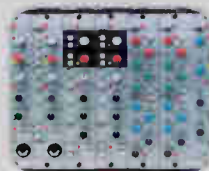


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# Guidotoons

## Joe “Guido” Welsh Carves an Unusual Niche in Nashville

In 1998, composer/producer/engineer Joe “Guido” Welsh relocated to Nashville from Kansas City, Mo., in search of a larger talent pool for the corporate-event music that he produces for Wal-Mart, which has been his steady gig for the past 16 years. In addition to creating upbeat, three-minute theme songs for the discount mega-retailer, Welsh works on songwriting demos and other side projects. His band, Thelonious Moog, creates quirky analog synth arrangements of Thelonious Monk tunes and other jazz standards.

After establishing a solid foothold in the city, Welsh created Guidotoons ([www.guidotoons.com](http://www.guidotoons.com)), a full-service project studio equipped with a solid complement of digital and analog recording equipment, as well as an enviable array of vintage and modern instruments, such as a Moog Theremin and Voyagers, Dave Smith Instruments Prophet '08, Clavia Nord Electro 2 and Nord C1 Combo Organ, a Harmonium and a Manikin Memotron.

Because Welsh works steadily for his corporate client and didn't want or need to compete with Nashville's sea of commercial recording facilities, he kept his business in-house—literally. The dining room in his Brentwood, Tenn., home contains a Yamaha grand piano, Hammond B3 organ and Wurlitzer electric piano. The back bedrooms serve as iso booths and amp closets, and the living room, a spacious 21x22-foot area with 16-foot vaulted ceilings, makes a comfortable live room. “My assistant, Trey Call, and I can set up in the morning for a session, and by the time my wife gets home from work it's a living room again,” says Welsh.

Welsh's recording spaces sound good as-is. “I haven't found a room in town that I like cutting drums in as well as my great room,” says Welsh. “I couldn't have built something that sounds this good.” The control room is located in a converted “bonus room” above the garage, which Welsh had retrofitted with 703 Fiberglas for isolation and bass traps in the walls. Tielines connect the control room to the other rooms in the house.

The contents of Welsh's control room have changed during the past few years, mainly in response to industry demand. An API DSM 24 workstation monitor rack, with an extra API 8200 8-channel summing mixer for 32 total inputs, and a Pro Tools HD3 Accel system running on a Mac G5 with Intel processor have taken the place of the Trident Series 80 console, Otari MTR-90 II 24-track machine and an iZ RADAR 24 he formerly used. “I miss the 2-inch, I miss the old Trident, but I don't miss the maintenance,” Welsh says. “I like the speed at which I can work now, and I'm getting great results.”

Welsh records primarily through the API system and Pro Tools, often using a fair amount of outboard effects, including Neve 1073 EQs, Manley ELOP and Variable Mu



Joe “Guido” Welsh produces music for Wal-Mart in Guidotoons.

limiters, a Manley dual-mono Tube Direct Interface, a Universal Audio 2-610 tube preamp, API 500 Series mic pre's and EQs, and the Moog Moogerfooger Series effects modules. He's also grown fond of Universal Audio UAD-1 plug-ins, the Waves Gold Bundle (especially MaxxBass), Focusrite Forte Suite, Stephen Massey plug-ins, Eventide Clockworks Legacy bundle and the Bomb Factory Platinum Pack, among others. “I still use the outboard equipment, but find myself going to plug-ins more often than not,” Welsh adds. “They've come a long way, and I finally just had to say, ‘Uncle!’”

A self-professed “ribbon mic nut,” Welsh owns an impressive collection of RCA and Royer ribbons, as well as other mics from Neumann, Shure, Sennheiser and Audio-Technica, along with T.H.E. BS-3D Binaural Sphere. He listens through a pair of Klein + Hummel O 300 D near-field monitors.

Although Welsh has built a well-appointed studio with a laid-back atmosphere, musicians who come to Guidotoons—including top Nashville session players such as Richard Bennett, Dan Dugmore and Kim Keyes; songwriters Judson Spence and Doug Kahan; and multi-instrumentalist Jim Hoke—are drawn in by the impressive instrument collection, which includes Gibson guitars from the '40s, '50s and '60s; 1960s-era Slingerland and Ludwig drum kits; and the previously mentioned synth collection. “The players like to joke that the money's better the less they have to bring,” Welsh says with a laugh.

Welsh says that he is currently devoting more time to his songwriting demos. “I'm hoping my music, which was left-of-center eight years ago, is now what people are looking for,” he says. He also plans to continue composing motivational pop/rock tunes for Wal-Mart. “Wal-Mart has been really loyal to me, and I've been really loyal to them,” he says. “And working with them allows me to do all this other cool stuff. I've been really lucky.” ■

Heather Johnson is a Mix contributing editor.

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# The Sound of the Sound

## Talking Technology With Richard Dodd

I first met Richard Dodd in August of 1999 in Kooster McAllister's Record Plant Remote truck. That night, he was recording Tom Petty playing the Target Center here in Minneapolis. The show had already begun when I walked in with a friend. We simply enjoyed what could have been a studio recording—that classic Petty sound all the way. When I commented, “Nice-sounding desk,” Dodd turned around, surprised to hear an American call this custom-made API console a “desk.” He revealed that he was using a whopping *two* highpass filters, plus a few compressor/limiters—including his fave 1176—on Petty's lead vocal.

During his career, Dodd has engineered and/or produced projects for a wide range of artists, including the Little River Band, George Harrison, Joan Baez, Roger Daltry, Del Shannon, Roy Orbison, Joe Cocker, Ringo Starr, Boz Scaggs, Sheryl Crow, Green Day, Keith Urban, Johnny Cash, ELO, the Traveling Wilburys, Red Hot Chili Peppers, John Mellencamp, the Dixie Chicks—the list goes on and on. All that—and Carl Douglas' 1974 hit, “Kung Fu Fighting”—makes for quite a varied discography. He's also an in-demand mastering engineer.

To keep himself busy between studio projects, Dodd has developed “The Motone™.” Slated for commercial release this summer, this analog processor is designed to “reintroduce the ‘tone’ or ‘sonic soul’ to what could be called well-intentioned but wrong recording techniques.”

Since our first meeting, Dodd and I have exchanged a few e-mails, the most recent of which was coincidentally timed with this month's focus on Nashville—the place this transplanted British engineer calls home.

***On the Petty live recordings, you had essentially no EQ. Is that typical for you when tracking?***

Yes, very, especially when recording “people in places.” The musicians, instrument, tempo, arrangement, environment, microphone choice, placement (of player and mic), mic preamp, headphone mix and attitudes all play a more significant part than any other “gear” factor.

***When you work in the digital domain, are you bouncing stuff to/from the analog world, as in capturing your outboard “to tape” after the fact?***

I have Motone, which helps me a great deal as far as the “*je ne sais quois*” factor. My oldest friend and brilliant—well, quite good—engineer, Peter Coleman, typically works at a studio two doors away from me (Treasure Isle). He uses a RADAR 24-track digital recorder and an analog console with moving-fader automation. During the mix, Peter will selectively bounce back to a Sony/MCI 24-track. His mixes are easy to master and always sound great. I do it much less frequently, and I use my



Richard Dodd at the API 48-channel Legacy Plus in Blackbird Studio B, just minutes from his personal studio

½-inch ATR 102 more often than my Studer A800 Mk1 24-track. Although they both sound great, the 102 offers a slightly better signal-to-noise ratio and that sometimes becomes the deciding factor.

***You're doing all sort of projects—recording, mixing and mastering—that come in on many formats, analog and digital.***

Work arrives on *everything*, ranging from my favorite digital format—FireWire hard drive—to DVD, my least favorite. Digital masters arrive on iPods, thumb drives, CD-Rs, DigiDelivery and other Internet storage/transfer sites. The one that amazed me the most was a cell phone! Most analog tape masters coming my way are half-inch 30 ips, followed by half-inch 15 ips, quarter-inch and 1-inch. I'd say that 95 percent of masters arrive in a digital format, and 10 percent of those go through tape during mastering.

***What are your issues with DVD?***

On a Mac OS X platform, I encounter failures mostly from DVD+R discs. I'm searching for a compatible reader that can cure DVD-R problems. I have not yet been able to find a reader that's compatible with all of the sources I get. The combinations of OS platform, media, burner, reader and user create the problems that I encounter. I strongly advise all to use a backup media other than DVD. Anyone with kids can see how delicate that media is in the real world.

***When you work with analog, what tape are you using? Do you have a favorite tape, speed, tape/machine combo, EQ? Bias tricks?***

In mastering, I have a good supply of older Agfa, BASF/Emtec brand to fill my needs for a few years. When I work elsewhere, I ask what “older tape” is available from the studio's stock. If I'm forced to use the “newer” production runs of tape, I will opt for ATR; the other stuff is totally unprofessional rubbish. As for alignment, the



usual tricks apply. Nothing new here, just a slight high-end lift on record.

An exception? When I use an old tube tape machine (Studer C37), I create my own curve. As this particular machine was only available at a maximum speed of 15 ips—18 ips if you don't change the AC frequency—I opt for the CCIR curve and modify that a little further. I can run good tape—Agfa or BASF/Maxima 900—to their maximum potential that way, that being a 2dB drop in HF EQ on playback and a 3dB or 4dB rise on record. It's not flat, but sounds fantastic in some cases. For everyday use, I have a wonderful ATR 102 with quarter- and half-inch head stacks, the half-inch being assembled by JRF and has extended playback response, while the quarter-inch stack is stock.

**What monitors do you use? How many different monitors?**

In my studio, I use Martin Logans as my main set, with ProAcs as a ref. I'm also getting used to Sennheiser 650 headphones for an extra ref as so much music is now listened to on headphones. When I travel, I take or use the ProAcs. I'm also happy to use the original Yamaha NS-10s. ATC is making some very good self-powered, near-field monitors now; they're a bit pricey, but, short of talent, monitoring and environment are the most important parts of any setup. If you can't hear it, you can't judge it.

**I read in an older Mix interview (July 2003) that you like to mix without automation. Is that still the case? If so, I would assume you do a lot of editing or have a lot of bands.**

That article was mainly referring to my methods up to the mid-'90s. That said, although I always use automation, now it is usually the last part of my mix. Simply put, I rehearse my mix manually and use the automation-write mode to record my manual mix. At my stage of the game, I then use the update or trim functions to replace the razor blade—

get the bits I missed. Not to sound glib, but unless I—or a very short list of others—have recorded it, automation is a must.

Today, way too many projects arrive not ready for mixing, the main culprit being too many tracks containing “decisions and options” that no one seems able to make. Even when asked to send “only what you want on the record, please,” the project turns up with a comments list that reads like a fast-food menu, complete with an A&R request to “supersize it.” It's pretty pathetic to find that at all levels of the established and new labels, no one can find a volume control. Send it to them louder and they like it more, and it won't change because of this rant either.

**What's the attraction of Nashville for you?**

Nashville's main attraction to me is that it's not New York or L.A. Coming from a long career in London and extended periods in major cities around the world, a place as intimate as Nashville made perfect sense when I moved here in 1991.

As far as industry people go, the denizens of the Nashville area are the same blend of wonderful and dubious as found in any music-centered metropolis, with perhaps a greater bias toward the wonderful. My friends here are fantastic, talented and priceless.

Nashville enjoys the existence of Blackbird Studio (see “On the Cover,” page 38), a complex of seven [at the time of writing] unique rooms offering a choice that includes API Legacy Pluses, Neve 8078, SSL 9k and very expensive Digidesign ICON mics. Recording environments range from classic '80s (A1 and B rooms), traditional live room and conventional (A2 and D) settings, to the lush and outrageous Studio C designed by the equally 'rageous George Massenburg.

The mic locker at Blackbird has 1,000 cool and working examples from every age and an outboard list greater than any studio

I have ever worked in—and it's all 50 yards from my own studio. Combine this with fabulous musicians and engineers, along with many other great places to work, and Nashville is as close to recording nirvana as it gets for me.

**What mic techniques would you like to share?**

Use as few [mics] as possible, placed as far away as practical. Tape a condenser and a dynamic mic together for snare—a Neumann KM 84 (or 85) with a Shure SM57. This offers the choice of either or both, using one stand and less hassle for the drummer.

**What are some of your favorite pieces of gear?**

The SPL Transient Designer; UREI 1176 (rev A through D); Shure SM57; Neumann “KM” everything—especially the KM56—and “U” everything—almost; [Neve] 2254, 33114; the RØDE Classic tube and many other mics. NTI EQ3d, GML—everything, although I wish I knew how to operate the compressor/limiter; I still have to twiddle till I get it right. API pre, Legacy Plus, 550As and 560s; Telefunken V76 preamps; Great River preamps; Neve 10 Series (66 to 81) modules. AKG BX20E; Cooper Time Cube; Studer C37, A800 Mk 1 to 3; Ampex ATR 102—almost all pro tape machines. Three-head cassette decks, Aphex 11, Chandler EMI compressor and the LA-2A.

**Your list includes the Blue Stripe, non-LN Version 1176?**

Yes, rev A through D (in correct condition) are all great. To my understanding, LN refers to a mod created from rev B that lowered the apparent self-noise level, thus creating the “black-face” rev C.

**What are some of your inspirations?**

“Music is the space between the notes.”—Claude Debussy.

“After silence, that which comes nearest to expressing the inexpressible is music.”—Aldous Huxley from “Music at Night,” 1931.

“Richard, it's the sound of the sound.”—Del Newman, 1972.

It took me a few good years to work out what [Del] meant. The sum of the parts and the silence?

I have always hated bad singers, those with a poor sense of pitch and time being the most awful. Our youngest daughter, Danielle, is 15. Dani—who was born with Down's syndrome—loves to sing along with her music. No pitch, no time, wrong words and sometimes very loud. It's the most beautiful sound I have ever heard. ■

Visit Eddie Ciletti at [www.tangible-technology.com](http://www.tangible-technology.com).

## Richard Dodd's 10 Recording Tips

THERE ARE NO RULES AS LONG AS NO HARM CAN COME TO MAN OR GEAR.

- 1: Do no harm, step back and make sure that you're not getting “in the way” of a good sound.
- 2: Change, don't “tweak.” No one hears tweaks.
- 3: If someone asks for the vocal up 0.2 dB, laugh as if it's the funniest joke you've ever heard, burst out laughing later and quote the joke. Repeat as needed.
- 4: Don't use brick wall limiting on your mix for any reason other than because you like it. Good mastering engineers can make it louder/better than you can, but they can't remove an inappropriate decision.
- 5: If in doubt, don't.
- 6: If it's “right,” do it.
- 7: Be ready. The “wrong” gear choice that's ready beats waiting past the “best available performance window.”
- 8: Share your knowledge.
- 9: Keep something secret.
- 10: Stop when you aren't having fun anymore.

# Tools of the Trade



## SOLID STATE LOGIC MATRIX

Furthering SSL's ([www.solid-state-logic.com](http://www.solid-state-logic.com)) reach into the affordable studio market, the Matrix (\$25,995) 16-channel, 40-input mixing console with built-in signal router and digital workstation control has dual summing inputs, stereo digital I/O, dual stereo buses, four mono and one stereo aux sends, and additional returns. Other features include LED and VU meters; 16+1 bankable, motorized faders; and four-layer DAW control via Ethernet. Matrix offers an integrated, recallable, 32x16x16 analog routing matrix, Mac/PC software for platform-independent project management and routing control, and effects chains and routing setups to simplify patching outboard units through the router. Monitoring options include dual-monitor outputs, artist monitor output with independent EQ/source selection, three external monitor inputs with source summing and a front panel iJack input.

and analog stereo inputs, and displays left- and right-channel loudness, as well as the summed loudness. The MSD100C also delivers the information as a numeric readout and in a number of languages with different scales to suit different users. The meter uses the Loudness Units (LU) scale, covering a range from -18 dB to +9 dB. It also features an audio vector oscilloscope, phase-correlation meter displays, a full-color VGA display and external VGA output.



## DRAWMER A2D2 A/D CONVERTER

The A2D2 (\$2,199) from Drawmer (dist. by TransAudio Group, [www.transaudiogroup.com](http://www.transaudiogroup.com)) is a stereo A/D converter offering simultaneous dual-stereo outputs at different selectable sample rates from 44.1 to 192 kHz. Features include 24-segment, peak-reading LED bar meters; dual-input configuration, allowing variable input level from -2 dBu to +28 dBu via front panel rotary controls; or 24-turn precision presets for a fully calibrated input. Each digital output has a selectable word length of 16 or 24 bits, with automatic dither generation. There is also an internal low-jitter clock generator, external clock input, three word clock outputs and Burr Brown analog input stages.

transformers, a custom iron-core output transformer and variable impedance (300 to 10k ohms) on a 41-position, detented Alps potentiometer. A 10dB output pad allows for slight saturation of the transformer, offering another tone-bending option. Other features include an instrument DI, dual gain ranges, detented gain and impedance knobs for repeatability, manual mute and stereo matching between multiple Juggernauts. When switching between input transformers, an auto-mute function prevents loud pops or speaker damage.



## DK-TECHNOLOGIES MSD100C LOUDNESS METER

Fresh from NAB comes the new MSD100C (\$2,690) meter from DK-Technologies ([www.dk-technologies.com](http://www.dk-technologies.com)), designed to tackle the issue of the perceived loudness of audio signals. It incorporates an ITU-recommended algorithm, has selectable digital

## ADAM A5 MONITORS, SUB7 SUBWOOFER

Adding an affordable entry to its A Series speaker line, ADAM's ([www.adam-audio.com](http://www.adam-audio.com)) A5 (\$699) powered monitors are smaller versions of its A7s, and can be used in stereo or to fill out a 5.1 system. The units are powered by dual 25-watt onboard amplifiers powering the folded-ribbon tweeter and 5-inch carbon-fiber and Ro-



## ATLAS JUGGERNAUT MIC PRE

The Atlas Pro Audio ([www.atlasproaudio.com](http://www.atlasproaudio.com)) Juggernaut (\$895) is an all-Class-A discrete, transformer-coupled, modular, API 500 Series-compatible mic preamp. The unit promises a wide range of tonal choices and control through the use of switchable, custom-wound iron and nickel input

hacell® sandwich woofer. The front panel features twin ports that extend LF response to 55 Hz, power/gain controls and metal grilles. Inputs are RCA jacks and balanced XLRs, plus a Stereolink® that lets users control the overall system volume from any one speaker's gain control. The matte-black speakers are available in "piano"-gloss black/white for \$769. Also new is the Sub7 (\$479, matte-black; \$529, black/white gloss), a compact subwoofer that extends system response to 30 Hz. The Sub7 has multiple XLR and RCA inputs, and a wireless remote for adjusting volume and crossover frequency from the listening position.

**M-AUDIO FAST TRACK ULTRA 8R**

The new Fast Track Ultra 8R (\$629.95) USB 2 interface from M-Audio ([www.m-audio.com](http://www.m-audio.com)) offers eight phantom-powered preamps, signal/peak LED indicators and a pull-out gain knob that activates a 20dB pad. All eight inputs can be switched between mic and line signals, and recorded at up to 96kHz/24-bit via the USB 2 output. Its MX Core DSP technology offers eight individual DSP cores, providing effects and a ma-



trix for channel-routing options accessible via a Mac/PC control panel. In addition to the eight channels of analog I/O, the 8R has a stereo S/PDIF input, two dedicated analog inserts on the first two channels and two instrument inputs.

**RME MADIFACE EXPRESSCARD**

Promising to be the world's first portable MADI solution for laptops, MADiface (\$1,949) from RME ([www.rme-audio.de](http://www.rme-audio.de)) comprises the HD-SPe ExpressCard MADI and a small breakout box offering 64 channels in and out, embedded MIDI trans-



mission and SteadyClock™ to extract the reference clock at the lowest jitter directly from the MADI signal. Also included is the DIGICheck software for Windows; Spectral Analyzer, a professional level meter for 2/8/64 channels; Vector Audio Scope; global record; and various other audio analysis tools. Systems supported include Windows 2000/XP/Vista/64 (full ASIO multi-client operation of WDM, GSIF 2 and ASIO 2) and Mac OS X Intel (Core Audio and Core MIDI).

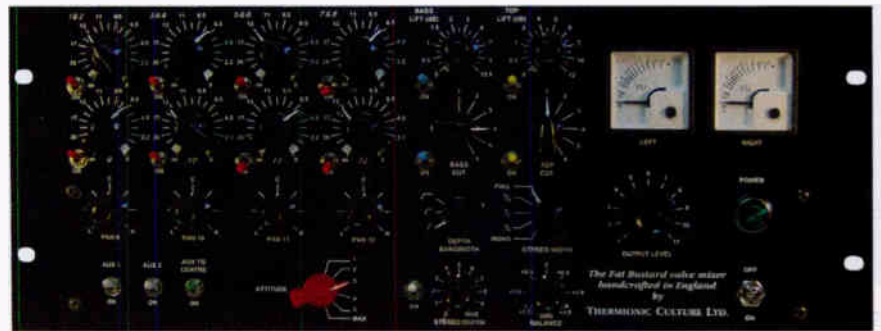
**YAMAHA AUDIOGRAM 6, 3 RECORDING INTERFACES**

Yamaha's ([www.yamaha.com](http://www.yamaha.com)) latest USB computer recording interfaces, the Audiogram 3 (\$139.99) and 6 (\$199.99), focus on simplicity, offering audio I/Os, software for recording and producing music, and a USB cable for connecting to a computer. Audiogram 6 features two XLR combo inputs with preamps (one with phantom power), one-knob compression, two stereo inputs, stereo and headphone outputs. Audiogram 3 has one phantom-powered combo input that is switchable for mics or instrument recording, a stereo input, and stereo and headphone outs. Both units ship with Cubase AI.



**THERMIONIC CULTURE FAT BUSTARD**

The Fat Bustard valve mixer from the UK's Thermionic Culture ([www.thermionicculture.com](http://www.thermionicculture.com)) has 12 inputs—four stereo pairs and four mono—all with mute switches. The output has a stereo-width control and low/high EQ with 0.5dB stepped boost controls and six stepped bass/treble cut controls. Four tubes (a pair of 5965 double-triodes) are used on the master bus—the first half as preamp/EQ, the rest handling gain makeup with the Attitude feedback



control, which determines the amount of Total Harmonic Distortion (THD). The Attitude control yields a clean signal when turned down and adds gain and second-harmonic distortion when boosted. The other pair of valves is the larger 6SN7 double-triode connected in parallel providing a massive +30dBm headroom. Two aux inputs allow for future channel expansion with the optional Little Bustard 16-channel expander due later this year.



**STARPLUGS THS SYNTHESIZER MK 1 PLUG-IN**

This latest VSTi plug-in for Windows XP and Vista from Starplugs (starplugs.com) features the new TransHarmonic Synthesis<sup>®</sup> algorithm and a newly developed THS Oscillator. The THS Synthesizer MK 1 (\$149) morphs up to 8 million waveforms into each other in real time. Other features include a Quantum multimode filter, offering lowpass, bandpass and highpass filtering at 12 to 24 dB per octave; two modulation sequencers; a pan-step sequencer; two envelope generators with shape controller; a syncable delay; and three syncable low-frequency oscillators.

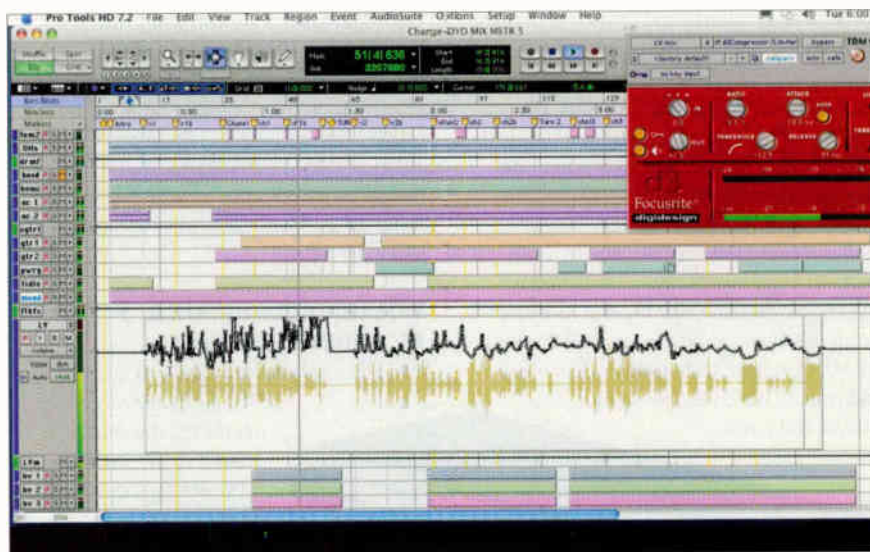
**EDIROL R-09HR RECORDER**

The latest incarnation of the R-09 handheld recorder from Edirol (www.edirol.com) by Roland features an updated design with a pro-quality stereo mic, on-board preview speaker and a wireless remote. Users can record in WAV or MP3 formats, with resolution up to 24-bit/96kHz. Other features of the R-09HR include an LED screen, speed control, variable low-cut filter, limiter, A/B repeat, time/date stamping, power save and



more. The R-09HR records to SD/SDHC media cards up to 32 GB, and includes Cakewalk's Pyro Audio Creator LE software for simple audio editing functions. Slightly taller than its predecessor and featuring a new rubberized-grip body,

the battery-powered R-09HR offers more than six hours of recording with Alkaline batteries and eight hours with NiMH rechargeables.



**MULTI-PLATINUM PRO TOOLS**

These instructional DVDs come from multi-Platinum-credited recording engineers, songwriters and producers, covering topics such as editing, mixing, pitch and more. Each set of lessons includes full Pro Tools sessions with indexed QuickTime movies, allowing the viewer to work alongside the engineer in the video. All screen grabs are captured at high definition and incorporate a keystroke viewer, letting users follow short-cut commands in real time. The videos are available as downloads or as boxed sets individually (\$75), or as a complete set for \$219.95 from www.multiplatinumprotools.com.

**DOLBY LAKE CONTROLLER SOFTWARE VERSION 5**

A powerful new upgrade for the Dolby (www.dolby.com/livesound) Lake Con-

troller software, Version 5 adds new networking, routing and control functionality, including Dante™ networking technology from Audinate. Each input source can be routed to any number of available outputs, with audio distribution to multiple physical outputs and output types. Input Auto-Select can assign up to four input sources to each mixer channel for input audio redundancy. Version 5 also includes the ability to configure the output cards for custom configuration of the I/O card slots. The Dante network enables reliable, sample-accurate, low-latency digital audio networking and distribution over Ethernet with no additional hardware required. Dante

connects directly to PCs for multichannel recording, processing and playback.

**SAMPLEBASE.COM EXPANDS SOUND SETS**

Diverse new SoundBlocks ready for downloading at Samplebase.com include a range of styles including "Street Soul: RnB Guitar" (\$29), offering soulful chords, catchy hooks, smooth riffs and gritty street licks that sync to the host tempo from 65 to 108 bpm. "Santa Fe Jose" (\$19) offers some Southwestern flavor, with drum, conga, bass, synth and stab loops. "World Percussion: Asia 1" (\$29) comes with 150 unique samples of velocity-sensitive drum, cymbal, bell and effects sounds. The \$29 "Rhythm Changes" jazz construction kit features multiple variations of piano, bass and drum that combine to create a complete arrangement. ■



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# IK Multimedia ARC System Plug-In

## Software-Based Advanced Room Correction for DAW Users

IK Multimedia, in partnership with Audyssey Laboratories, has released ARC System (Advanced Room Correction), the first plug-in room-correction DAW software. This complete package includes a stand-alone, software-based measuring tool with onscreen step-by-step instructions and an omni condenser measurement mic to be used with your mic preamp. The second half of the ARC is the corrective plug-in. It works in RTAS, VST or Audio Units (Mac or PC host DAW computers), uses 32-bit floating-point arithmetic and supports session sampling rates from 32 to 96 kHz.

### SIZING UP YOUR ROOM

The measurement software uses Audyssey's MultEQ® to analyze patterns in the time domain and frequency responses at many locations within the room's listening area, and classifies them into clusters based on their similarities. A representative response is created for each cluster with a final response created by grouping them. This final response is used to create a room EQ filter profile that corrects frequency and phase anomalies within the area defined by the many measurement locations. This data is named and stored for later use in the ARC corrective plug-in.

The measurement software has five steps to guide you through measuring the speakers and room. To run ARC in Pro Tools, first quit the program to allow Digidesign's Core Audio application to launch and run at the required 48kHz sample rate. With the mic plugged into your preamp, you'll immediately see activity on the GUI's peak-reading meter.

I located my chair to the "mixer's sweet spot"—equidistant, four feet from my ADAM S2.5A speakers that are placed left and right in front of my Pro Tools workstation. I put a sticky paper dot directly under the center of the chair on the plastic chair mat on the floor beneath. This became position one for system calibration and starting all measurements.

To make the process repeatable, I created a layout of microphone positions on the mat using numbered dot markers spaced at



Powered by Audyssey's MultEQ, ARC System's corrective plug-in offers four target response curves.

6-inch intervals—all within the shape of a large oval—with my sweet spot as the center. You'll need to take a minimum of 12 measurements whose sequential order must alternate or mirror each other from side to side and from front to back. For the highest accuracy, I placed dot markers for the system's maximum of 32 measurements.

To calibrate at position one, a continuous stream of pings from both speakers is emitted in step 3. These pings are short-frequency sweeps from low to high.

When the words "Signal level is OK" light up solidly in the GUI, you've got enough signal level to continue with your measurements.

I started my measurements making sure that the microphone was pointed at the ceiling and at the height of my ears while sitting in the chair. Any extraneous noises—such as a loud truck going by or A/C noise during a measurement step—will necessitate repeating that step.

The software accomplishes each measurement by sending 10 pings—first from the left and then from the right speaker. The GUI then prompts you to move the mic to the next position. Then

once you click on "Take Measurement," you have three seconds to get out of the way before the next set of pings starts.

Once all 32 measurements are made, click "Finish" and the software creates a correction profile file. You can rename/delete profile files only by drilling down to the ARC folder in HD/Library/Application Support/IK Multimedia/ARC. The ARC corrective plug-in is the only place you can check and hear the results of your measurements. It would make sense to have the graphical information show up in the measurement tool before you boot up your DAW. Immediate changes in the speakers and/or room could be quickly verified with another set of measurements.

### DIGGING INTO THE PLUG-IN

The ARC plug-in graphically indicates the responses of the left and right channels. The original response of the room is shown in orange and the corrected response is shown in white. A peak-reading meter shows pre- or post-correction levels. A pull-down menu lets you select the desired target curve to run along with the corrective profile.

MultEQ offers four target curves: Flat is the flat correction of the room response only to the extent of the upper- and lower-frequency limits possible



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with your loudspeaker system; HF roll-off 1 adds a slight roll-off of highs to compensate for untreated, live listening spaces; Flat Mid-Comp compensates for directivity differences due to horn-loaded speakers and/or the response peak at the speaker's crossover frequency; and HF roll-off 1 MidComp is a combination of the previous two choices.

A Preference window sets the plug-in to remember settings, the profile for the next instance and whether speaker delay trimming is enabled. Speaker delay is for setups where the distances of the speakers to the "sweet spot" are not all the same.

The ARC software can detect speaker distances to a ¼-inch resolution. Unfortunately, this option comes up turned on by default, and unless your measured sweet spot (position one) is exactly equidistant from the left and right speaker, then the sound will be phasing and terrible. It is not needed for stereo monitoring and should be switched off by default.

Last, for A/B'ing room correction on/off, the ARC plug-in's level control can bring the level back up after correction. Once I did this a few times, I didn't bother any more.

## THE ENVELOPE, PLEASE

My mix room is small but acoustically well-treated with good absorption on the walls and ample ceiling diffusion. Nearly all of my room anomalies were in the bass frequencies with peaks at 70, 180 and 500 Hz, along with noticeable dips at 90 Hz and 1.5 kHz. The left speaker, which is close to a solid wall, showed dips and peaks of greater amplitude while the right speaker, closer to an open doorway, showed less. The corrective curve followed this with less and smoother-looking correction for the right than the left. There were a couple of smaller dips and bumps in the midrange, which I attributed to the sonic signature and 1.8kHz crossover point of the ADAM speakers.

The graphical display in the ARC plug-in is not finely calibrated, so you only get a general idea of the room's response. Clearly, IK Multimedia intends for ARC to serve as an easy-to-use problem-solver rather than a comprehensive, supertechnical instrument for acousticians. To check my work and for consistency, I did a dozen sets of measurements. The overall differences were nil—at least as far as I could hear and resolve using the ARC plug's graphic.

## LIVING WITH CORRECTION

To be honest, I was not ready to get used to my monitors all over again with correction running. Frankly speaking, my ADAM S2.5As sound boring with correction running; the euphonic hype of them playing music in my small space is flattened out. Although maybe not as fun, it's all good sonic medicine.

With correction on, I now understand certain producers' critiques about elements of my mixes. Although mastering usually fixed all of the blemishes, before correction I was finding that vocal and guitar tracks would sound thick in the 400 to 600Hz range. The peak in the 500Hz area explained that although the 70- and 180Hz bumps caused mixes to be slightly thin overall unless I pushed kick and bass, I was hearing too much of these frequencies and twisting EQs to compensate.

So at this point, I'm mixing with correction and rethinking a lot of what I do. I think it is wonderful to have the ability to check the room and monitors to see and hear the problems. IK Multimedia's ARC System will "tune up" any listening space so you can hear the way the mix actually sounds and be confident in how it will translate to other playback systems. Prices: \$599; IK product cross-grade, \$499.

IK Multimedia, 954-846-9101, [www.ikmultimedia.com](http://www.ikmultimedia.com).

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The Sales Engineers at Sweetwater put together more audio systems than anybody, and when it comes to convolution reverb, they recommend Altiverb.

# Universal Audio 2-LA-2 Twin Leveling Amplifier

## Two Opto Compressors in a Compact, Stereo/Dual-Mono Package

When Universal Audio reissued the vintage LA-2A Leveling Amplifier eight years ago, I was one of the first people to open my wallet. The LA-2A featured the all-important T4 electro-optical cell responsible for the ultra-transparent compression heard on countless hit records. Unfortunately, the LA-2A also required a kludgy procedure to stereo-link two units: A shielded wire less than two feet long had to be connected to two screw terminals on the back of each unit, followed by a stereo-calibration procedure.

The new 2-LA-2 offers two LA-2A-style compressors mounted side-by-side in a two-rackspace chassis. You can link them for stereo operation with the throw of a switch. How sweet it is.

### LIKE FATHER, LIKE SON (NEARLY)

The 2-LA-2 is not an exact component clone of the LA-2A; rather, it substitutes modern parts such as metal film resistors and newer caps in its bequeathed Class-A circuit layout. The 2-LA-2 uses the same input transformer as the LA-3A and the same output transformer as the one used in the 610 series of products. The 2-LA-2 offers far greater headroom as compared to the LA-2A, which puts mix bus applications into play.

A T4 opto cell in each channel's sidechain gives the 2-LA-2 its pedigreed 10ms attack time and two-stage release (0.06 second for 50-percent release and 0.5 to five seconds for the remainder, depending on program content). Four tubes—two 12AX7As, one 12BH7A and one EL84—grace each channel.

Front panel controls are identical for each channel. Operation is so simple, a goldfish could handle it. Simply turn the Peak-Reduction knob clockwise to increase compression depth and do the same to the Gain control to add make-up gain. There are no attack and release controls; time constants are program-dependent. One switch selects between compression and limiting, while another causes the channel's Sifam VU meter to show either gain reduction or output level. A recessed trim pot zeroes the meter. There are switches to select stereo-linked or dual-mono operation. Another switch bypasses compression while leaving



the tubes in-circuit for coloring input signals without compressing them. But it also makes A/B comparisons between compressed and uncompressed signals difficult because of level changes for each setup. Balanced XLRs on the rear panel provide line-level I/O connections for each channel. Inserts for the sidechains are not provided.

### SQUEEZE ME, BABY

My first test was an A/B comparison between the 2-LA-2 and my LA-2A on male vocals. The LA-2A preserved a tad more air, resulting in a slightly clearer and more detailed sound. The timbral difference was subtle. Most importantly, the compression characteristics sounded identical and entirely devoid of any amplitude-modulation artifacts with 10 dB of gain reduction applied. The 2-LA-2 can reign in even the most unruly vocals.

Next up were double-tracked electric guitars, hard-panned and recorded with Royer R-121 and Shure SM57 mics. For this application, the 2-LA-2's dual-mono mode gave a wider stereo image than stereo linking. I dialed in 2 to 5 dB of gain reduction in Compression mode, listened and smiled. The guitarist's fully voiced chords were transparently squeezed so that palm-muted diads peppering his playing were raised roughly 3 dB in relative level. The result was a driving, rhythmic onslaught that sounded absolutely phenomenal. Compared to the unprocessed tracks, the processed sound was also slightly creamier. Compression mode lent a pluckier sound (exhibiting more detailed transients) than Limit mode.

On an acoustic guitar that I recorded with a spaced pair of Neumann KM184s, applying 2 to 3 dB of gain reduction produced a beautifully dense track somewhat reminiscent of early CSNY productions. On both stereo acoustic guitar and piano, the stereo-link function provided the most rock-

solid imaging. Dual-mono mode provided a wider stereo spread but made the center image slightly wobbly, even with only 2 dB of gain reduction. Nevertheless, I sometimes preferred dual-mono mode when I desired some shimmering movement in a stereo instrument during mixdown.

With light to moderate compression of stereo tracks, the 2-LA-2 is as transparent as Saran Wrap™. Crank the Peak-Reduction control, however, and you can make percussive tracks hyperventilate like a marathon runner. In dual-mono mode, the 2-LA-2 made drum overheads and room mics pump beautifully with 7dB gain reduction applied. The processed sound also added flattering density, and made crash and ride cymbals sound a little less icy.

The 2-LA-2 sounded great placed on the stereo bus during mixdown as long as I didn't push its I/O levels too hard. Specs for the unit rate maximum input at +24 dBu and output as +20 dBu, nominal for 1-percent THD, which is fairly modest. The unit can catch transients quickly enough that I could readily make my rock mix louder. The 2-LA-2 also added subtle warmth and creaminess, and a beautifully tightened bottom end. If I pushed the levels too hard, however, then the mix started to sound a little gritty.

### I'LL LEVEL WITH YOU

The 2-LA-2 sounds its best—make that fantastic—on individual mono, dual-mono and stereo tracks. At \$3,999 list, such quality doesn't come cheaply. But if you've got the dough, you'll love what Universal Audio has cooked up.

Universal Audio, 877/MY-UAUDIO, [www.uaudio.com](http://www.uaudio.com). ■

Mix contributing editor Michael Cooper is the owner of Michael Cooper Recording in Sisters, Ore. Visit him at [www.myspace.com/michaelcooperrecording](http://www.myspace.com/michaelcooperrecording).

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# Sennheiser MKH 8040 Series Microphone

## Detachable Capsule, Low Profile, Extended Bandwidth

Sennheiser's MKH 8000 line offers three models and a range of accessories that allow for many extension and placement options. The Nextel black finish is camera- and stage-friendly, offering low visual impact. Three capsules are offered: The omni MKH 8020 offers a frequency response from 10 Hz out to 60 kHz and handles SPLs up to 138 dB; the MKH 8040 (tested here) is a cardioid model; and the MKH 8050 is supercardioid. The latter two boast a 30 to 50k Hz response and handle 142dB SPLs. All three are transformerless.

The MKH 8000's design lets you separate the capsule from the MZX 8000 XLR module; both are available separately or as a single-capsule package. With the XLR module attached, the mic measures just under three inches long and 0.75 inches in diameter. For tight-placement situations or hanging applications, one of the extension options can place the XLR connector up to 30 feet from the 1.6-inch capsule. There are nearly 20 available accessories, including a floor stand, stand clip, extension tubes, shock-mount, cable extenders, crossbar mounts, table stand and ceiling mount. The MKH 8040 I tested came in a sturdy, lockable aluminum case with clip, the capsule with XLR module and a pop filter.

### COMPACT AND COMPLEX

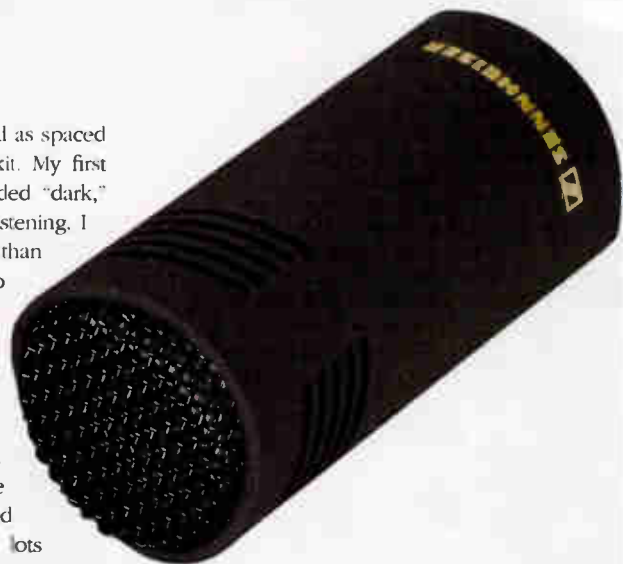
The 8000's design is officially listed as a radio-frequency (RF) condenser with a symmetrical push-pull transducer. In addition to the back plate, the mic is fitted with an extra front plate with the "business" diaphragm placed in between. This offers a fixed acoustic impedance, high output, low noise and low distortion. RF condenser mics use a comparatively low RF voltage generated by a low-noise oscillator. This voltage is modulated by the changes in capacitance produced by the sound waves that move the capsule diaphragm. Following the demodulation, a low-noise audio frequency signal with very low source impedance is available, and this can be used to directly drive bipolar transistors that produce less random noise than the field-effect transistors that are usually needed.

### AROUND THE STUDIO

I first heard the MKH 8040s used as spaced pair of overheads on a drum kit. My first impression was that they sounded "dark," lacking top end. Upon further listening, I decided the mics were flat rather than lacking in HF response. My go-to overhead mics are Blue Bottles, which sound open at the top end and are a beautiful choice as overheads. In comparison, the MKH 8040s lacked the "oomph" that I seek from the cymbals. However, in this application the midrange toms and snare sounded great with beautiful transients, lots of presence and no sign of pooping out, even when the drummer was playing at full strength. For the next test, I used them as close-in tom mics and I wasn't disappointed. Both high and middle drums were represented perfectly, offering the same transients and presence I heard when I used them as overheads. They did need a bit of help in the top end, which was easily achieved by applying a bit of EQ.

Used as a spaced pair on a wooden Leslie cabinet, the MKH 8040s sounded phenomenal. Placed left and right at a corner of the cabinet to get the full benefit of the spinning horn, they sounded perfect in the midrange, making the organ sit right where it belonged with the rest of the band.

I had an epiphany when I used the mics as a spaced pair on congas to determine how well they could isolate the on-axis signal. I used the MKH 8040s with the Blue Bottles and placed all four mics identically, about a foot from the drums. The Bottles have 1-inch cardioid capsules and sounded great as a stereo pair for percussion. Although the MKH 8040s were placed and panned in the same way, they sounded much wider due to their scaled-down off-axis response. The result was so isolated that when A/B'd with the Blue Bottles, the MKH 8040s sounded starkly wider. The 8040s sounded flat in the top range but offered a nice midrange response that I would have trimmed down in the lower midrange for the mix. They were a bit too realistic in regard to the drums' bottom end, which



made them sound tubby in the mix.

Last, I heard the mics on an acoustic guitar placed as an X/Y pair. They served this instrument well, providing a nice stereo picture due to their ability to isolate on-axis signals, and the top sounded as flat as I'd observed on other instruments. The only thing I would have changed for the mix was to boost the top a bit. Compared to a spaced pair of larger-diaphragm mics, the MKH 8040s brought the guitar right out in the midrange, prompting me to turn them down until they sat perfectly in the mix.

### SOLID, VERSATILE CHOICE

Generally, I had good results with the MKH 8040s. My only complaint is that they often needed a bit of help in the upper audible frequency range. They did provide a nice midrange presence no matter what I tried them on, specifically making the organ, guitar and drums pop in the mix. I could see the accessory package and the ability to place the capsule remotely from the XLR connector as real pluses. The MKH 8040s retail at \$1,948.50, but their street price is much less. These versatile mics might just be the ticket for use in studio, live and broadcast situations, and giving them a listen is a worthwhile investment in time.

Sennheiser USA, 860/434-9190, [www.sennheiserusa.com](http://www.sennheiserusa.com).

*Kevin Becka is Mix's technical editor.*

# The Million \$ Pre

The Focusrite Studio Series console  
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## ISA One

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With an installed studio cost of over \$1,000,000, the Focusrite Studio console (72+ channels) was probably the most expensive, and sonically impressive console ever built. Its unique sound has contributed to countless gold and platinum recordings over the last two decades.

The Focusrite consoles were based around the ISA110 Microphone Pre-amplifier and EQ module, originally commissioned in 1987 for AIR studios, London, to extend the custom Neve console in Studio One. Sir George Martin, the AIR Studios team and Focusrite tuned the microphone pre-amplifier by ear. It went on to form the cornerstone of all ISA products. The topology has never changed, except for the addition of a variable impedance circuit, providing ISA users with increased control and a broader variety of sounds.

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# Lab.gruppen FP+ Series Power Amps

## High-Wattage Units Feature Networking, Class-TD Operation

Lab.gruppen has a well-deserved reputation for manufacturing some pretty impressive power amplifiers. Its FP+ Series touring amplifiers incorporate a number of technological advances, including the company's patented Class-TD circuitry, which—according to the manufacturer—combines the efficiency of Class-D amplification with the sonic attributes of Class-B. Class-TD works with a regulated switch-mode power supply that ensures stable, full-power output over a wide range of voltage input. When used with Lab.gruppen's NLB 60E Ethernet Bridge, FP+ amplifiers are compatible with NomadLink, the company's proprietary network for PC control and monitoring.

### THE BEAST

For this review, I tested Lab.gruppen's FP7000 (pictured) and FP10000Q power amps. The FP10000Q (\$6,495) is a 4-channel amp rated at 2,100 watts per channel into 4 ohms or 2,500W/channel into 2 ohms. When bridged, it pumps out 4,200W (x2) into 8 ohms or 5,000W (x2) into 4 ohms. The FP7000 (\$5,095) 2-channel amp can deliver 2,800W/channel into 4 ohms, 3,500W/channel into 2 ohms or up to 7,000W when bridged. Both models occupy two rackspaces and weigh 26 pounds. The review units featured binding post outputs, but versions are available with Speakon terminals. All versions employ balanced XLR inputs (pin 2 hot). The FP7000 provides loop-through connectors, while the FP10000Q does not.

I used the units for L/R mains and monitor systems. At several shows, the FP10000Q powered *both* the mains and monitor systems (two channels each). Mains were JBL PRX and SRX Series cabinets, and monitors were Yamaha SM12Vs. Typically, one cabinet was driven per channel, but in a few cases two SM12Vs were paralleled from one output.

My FP+ amps came with a 30-amp twist-lock on a nonremovable power cable, which I found disappointing. A quick trip to a local electrical supply store yielded a mating female connector, which I used to make an adapter. In addition to the power



cable, the rear panel includes the previously mentioned I/O connectors, NomadLink ports and DIP switches for amplifier gain, bridging, fan "masking" and voltage-peak limiter (VPL).

### THE BEAUTY

These amps incorporate several circuits designed to protect the amplifier and your loudspeakers. DIP switches set the amplifier gain, which affects sensitivity (making it easy to optimize both signal-to-noise and headroom), while front panel pots are used for making fine adjustments to the input level. Having these controls might seem redundant, but this is not the case; think of it as having a mic/line/instrument selector on a console input, plus a trim pot for tweaking.

The VPL is a unique feature of the FP+ Series. It sets maximum peak output per channel in increments from 38 to 150 volts (FP10000Q) or 155 volts (FP7000). VPL matches peak power output to your loudspeaker to protect your drivers. This was a welcome feature when connecting those Yamaha monitors, which could potentially be damaged if driven by the full muscle of an FP+. It was even more welcome when driving the mid-/high-frequency section of JBL SRX738 cabs in bi-amp mode, which requires *far* less power than what the FP10000Q is capable of delivering.

Using the FP+ amps was a joy. Soft turn-on ensures that you won't blow a mains fuse when powering up—no small consideration for a device that can draw between 5 and 30 amps from the AC supply. Front panel controls are minimal but show essential input level and fault status, and the right rack handle shields the power switch from accidental tripping. One nitpick I have is that the binding post connectors must be inserted alongside the edge of the rear panel instead of perpen-

dicular to it, as on most power amps. This probably won't be a big deal, but it might require an empty rackspace above and below the amp. (Lab.gruppen includes rear mounts to prevent damage when the amp is installed in a mobile rack.)

All FP+ Series amps are compatible with Lab.gruppen's NomadLink network with the addition of the NLB 60E Ethernet network bridge (\$1,245), which interfaces the amps with a PC. NomadLink connections use RJ45 hardware and DeviceControl software (PC only) to identify the amps on the network automatically and generate a list of amps onscreen. Amps may be powered on or off; monitored for faults, shorts and error warnings; and muted on a per-channel basis. At one point, I had a speaker cable with a short in it, and the FP10000Q muted the shorted channel while indicating "mute" on the front panel. Changing the faulty cable relieved the problem.

### CLEAR AND POWERFUL WINNER

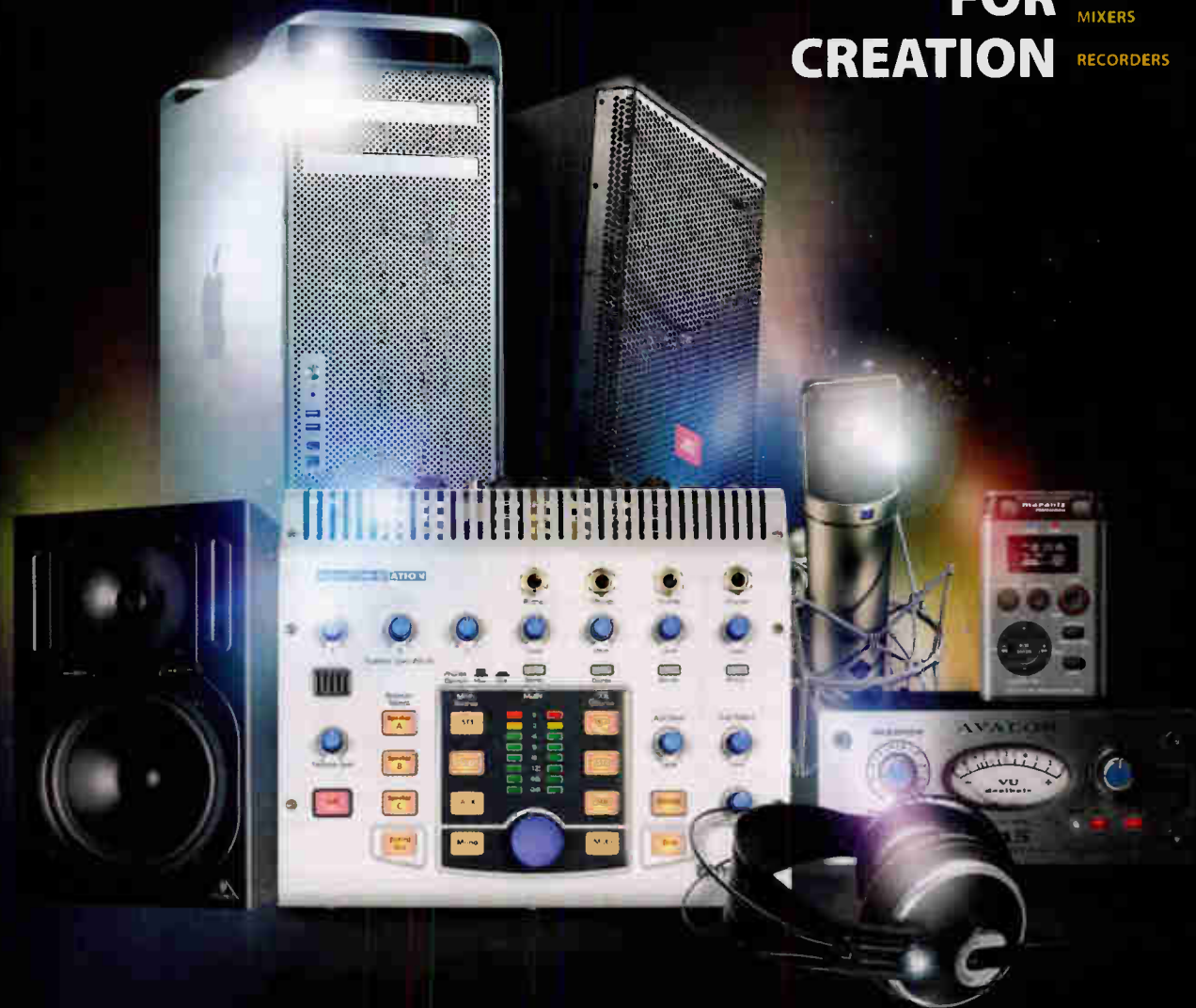
It's very apparent that FP+ amps have total control over the loudspeakers that they are driving. The low end is powerful and very tight *without* slop or hangover, while the mid- and high frequencies are as clearly defined and transparent as the input signal. Background noise is present only if your source is generating it. Using the FP10000Q allows stereo bi-amping with *one* power amp that can be lifted by a single person. At no time during operation did the amps run any more than warm to the touch.

These amplifiers sound great and provide a lot of headroom, which fits my credo: "You can never have enough power!" When you drive a Ferrari, you don't always surpass the speed limit, but it's nice to know that the muscle is there if you need it.

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# JZ Microphones Black Hole

## Three-Pattern Condenser Features Dual Capsules, Swivel Mount

Last fall, when I heard about the formation of JZ Microphones, a Latvian company spun off from Violet Microphones, I wasn't sure what to think. The principal behind the company is Juris Zarins, who was Violet's chief designer and formerly with Blue Microphones. I wondered whether the world really needed another mic manufacturer, but after previewing JZ's debut product—the BH-1 Black Hole—I was intrigued.

There are lots of me-too mics on the market, but this one's different. It has a matte-finish black body and a center cutout—hence the “Black Hole” name—but what's under the grille has piqued my curiosity. Rather than the traditional approach of using a single condenser capsule with dual front/back diaphragms, the Black Hole places two identical 27mm capsules back-to-back, combining the output of both to create its omni, cardioid and figure-8 patterns.

### LOOKING WITHIN

The capsule's design is also unique. The usual approach is a thin, uniform sputtering of gold over the diaphragm surface. The Black Hole uses a patented variable-sputtering process with a proprietary alloy mixture placed in a pattern of irregularly sized circular shapes surrounded by noncoated areas. Under the hood, the discrete Class-A preamp electronics provide an equivalent noise level spec that's rated at an impressive 7.5 dB (A-weighted, DIN/IEC).

The mic ships in a beautiful wood case with magnetic locking latches that keep it protected between sessions. Inside is a stand



The capsules use a variable sputtering process.

clip unit that uses a spring-loaded mechanism to secure the mic to the stand. Placing the mount on the mic requires simply compressing and releasing the spring so it couples with two steel pins within the mic's center-section cutout. In addition to fixing the mic securely to the stand, this shock-mount arrangement allows the mic to rotate  $\pm 30$  degrees side-to-side for more placement flexibility in tight quarters, such as drum miking.

### IN THE STUDIO

Having the Black Hole for weeks, I tested it in a variety of situations. First up was voice-over for a video project with a male narrator. After a few takes in cardioid mode, several things became apparent. The mic is extremely detailed, which is wonderful for capturing nuances, yet at the same time captures distant air-handling noise, page turns and bench squeaks with unerring accuracy. With a lesser mic, such details are often hidden by capsule weaknesses or excessive self-noise, but here the Black Hole delivered *everything* put in front of it, especially with an ultraclean preamp such as the Millennia Media HV-3.

Tracking male vocals on a surf-rock tune into Pro Tools via a Groove Tubes ViPRE preamp and an LA-2A provided a much different sound. The Black Hole has a fairly flat, neutral character; here, the added tube processing was just the right ingredient. The mic's proximity effect is fairly subtle, even in cardioid, and taking advantage of that extra LF boost required getting very close (about three inches from the capsule) and using a stocking filter to reduce the plosive sounds. This vocalist needed a bit of presence boost (+2 dB around 6 kHz), although female background vocals on the same track needed just a hint of HF boost for an airy quality. Tracking that same soprano on leads, the track was fine without EQ.

I was impressed with the Black Hole's polar response. The cardioid setting is fairly wide, with a smooth tail-off that's great for



vocalists who move around a lot. However, this same wide, smooth pattern requires a little more effort when trying to isolate loud nearby instrument/noises. The omni response was absolutely consistent from side-to-side, and the figure-8 provided the most identical front-to-back I've ever heard. I'm sure this stems in no small part from the dual-capsule design; regardless, figure-8 devotees will love this mic. I was less jazzed about the pattern switch itself, which has a cheap feel and a foil sticker—rather than engraving—to indicate switch positioning.

On that same surf session, I used the Black Hole as a distant room mic combined with a Sennheiser MD 421 positioned up-close on a vintage Fender Deluxe Reverb amp to track tremolo guitar parts. In omni, the mic's low-noise performance shined, providing a nice ambient track from a fairly low-SPL guitar performance. Switching to cardioid to record close-in (and very high-SPL) cowbell overdubs, I detected a faint ringing sound, which disappeared when the mic was touched. Evidently, this was a slight body resonance from the mic's outer shell (according to JZ, a new shock-mount that grips the mic body would negate any such resonances), but this was the only time I experienced this using the Black Hole.

In other overdub situations, ranging from acoustic guitar to chimes and crotales, the Black Hole exhibited consistently neutral tonal balance, with a crisp (but not overblown) top end that reminded me of a Neumann U87.

### LITTLE, BLACK, DIFFERENT

Anyone looking for something different in a versatile studio mic should check out the Black Hole. Retailing at \$2,295, it's hardly an impulse buy, but at the recent Musikmesse show, JZ unveiled the Black Hole SE, a single-pattern (cardioid) model that lists at \$1,895.

JZ Microphones Ltd., [www.jzmic.com](http://www.jzmic.com) ■



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# Mu Technologies Mu Voice 1.1.1

## Low-Latency Vocal and Intelligent Harmony Processor

Correcting intonation problems and performing wild harmonic effects are two processes that aren't often mentioned in the same sentence by most engineers. This may explain why so many plug-ins fall on one side of the "pitch" fence or the other. But Mu Technologies addresses both aspects of processing pitch with Mu Voice, a four-part harmony processor that takes into account the musical context of a piece, such as chord and scale information, while relying on a powerful tuning engine that corrects to the nearest half-tone or to the nearest note from the scale.

Input material must be monophonic and sampled at 44.1 kHz. Mu Voice gives you control over each harmony voice, offering a large assortment of filter-, formant- and harmonic-based special effects. With an internal latency of just 5.8 ms, this real-time plug-in requires no load time or offline pre-processing. On the Mac, it supports VST, Audio Units and RTAS formats, as well as Universal Binary (under OS 10.4 or later), and it supports VST and RTAS under Windows XP. Mu Voice is authorized using the PACE iLok system; a dongle is not included.

### MEET THE PANELISTS

After launching Mu Voice, I immediately encountered its inviting, musician-friendly vibe. Instead of offering the typical, sterile calculator approach of old-fashioned harmony displays, Mu Voice's GUI operates more like a conventional mixing console and chord chart. Prominently displayed is the Voicing panel configured as a 4-track harmony mixer. At the top of each channel is a tiny display box where you can assign one of four harmonic parts, or "voices," for that track. For example, to harmonize an incoming signal according to the C chord in the C-major scale, no pitch shifting will be applied to the lead voice; the second voice will produce the lowest note above the leading note (when the lead voice sings C, the second voice will sing E); and the third voice will produce the second-lowest note above the leading note, or G in this case.

For harmonies to sound natural, though, they must also fit into any changing musical context. Mu Voice uses tables that define

which note should be used for the second, third and fourth voice based on the desired scale, chord and leading note. Using the same example as above, if the lead voice were to sing G, the second voice would produce C and the third would produce E. The fourth voice is simply the octave of the lead voice; if there are modifiers, then they will be applied here.

Harmony parts can be shifted up or down by as much as one or two octaves. A special pitch-shift slider lets you adjust pitch manually or perform glissandos, the range of which is expressed as a decimal figure and can be half-tone-quantized. As the desired balance and number of harmony parts can change over the course of a song, there is a gain control and Mute button on each channel to automate voices on and off.

The Analysis panel offers global control over behavior of both the pitch analyzer and tuner circuitry. Using a range control, you can set the analyzer to search for low-pitched voices and instruments (the default setting) or adjust it to detect higher-pitched notes, avoiding artifacts. Tuning can be set to chromatic or scale, and the tuner's impact can be adjusted for rounding values from none to the exact pitch. A global volume/shift slider operates on all harmonies simultaneously.

### PANNING AND FX

Mu Voice's panning feature is neat: It uses a binaural spatialization technique derived from psychoacoustic measurements to place and create the perceived angle of a given vocal harmony. A pan slider on each channel can "direct" sound along an azimuth of -90 to +90 degrees.

In addition to the voicing controls, each channel has a set of effects parameters. The



Mu Voice shown in Read mode. The position of the cursor is determined by the timing information of the host.

Humanizing slider adds slight random pitch variation and delay to harmonies whose pitches are coupled so tightly that they might otherwise interfere and be perceived as a single distorted voice. Formants are maintained by default when altering pitch, but timbre (gender-bending) can be warped manually or switched out entirely. Each voice channel also features a multimode filter with settings for high- and lowpass (positioned at a 4kHz cut-off); bandpass (400 to 4k Hz); and comb and inverse comb filters with resonances at multiples of 300, 600 and 1.2k Hz.

### THE GRAND SCHEME

Voicing configurations are saved as presets that can be arranged into a song along with chord choices. The Chord Scheme panel is a scrollable matrix of cells where you can add scales and chords at specific musical events that automatically synchronize to the host clock. This interface is straightforward: Select a given key signature from a small panel located just beneath the matrix, and the diatonic series of chords is displayed along with chord modifiers like sus4, 6, 7 and 9. By clicking the chords and modifiers, a chord is selected for harmonization.

Once a song's chord scheme is defined, computer keyboard events can be used (from hosts that support them) to trigger a corresponding cell's voicing preset and/or chord simultaneously. Each cell displays chord,

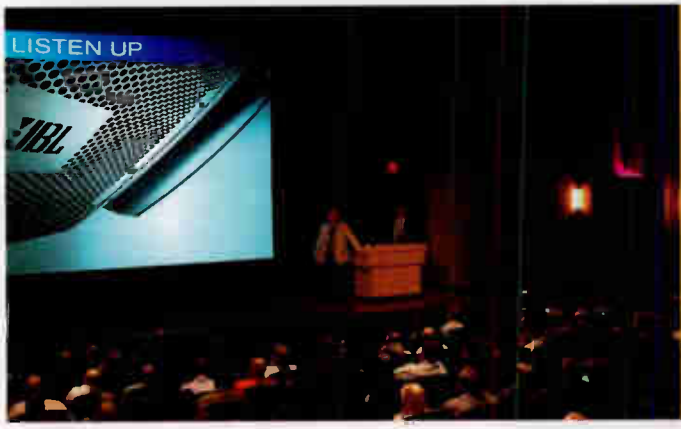
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scale, preset number and time-stamp indication for a concise overview of a song.

#### HEAR IT SING

Mu Voice ships with 36 voicing presets covering everything from common clusters (duo, trio, quartet maj7 and minor7) to voice doubler/triplers, imaging/panning and filter/harmonic EQ effects. After quickly auditioning the presets, I couldn't wait to dig into a female alternative-rock project that I'd just begun mixing. The lead vocal was great and well executed, and the pitch was nearly spot-on. However, the back-

ground vocals were not well produced, offering a chance to test out Mu Voice.

The factory programs offer great jumping-off points. I referenced the "Duo 1st, 2nd" preset for the song's pre-chorus and the "Trio 1st, 2nd, 3rd down" for accentuating certain words in the chorus. I was also provided with several unison tracks from which to pick and choose during mixing. While I prefer the genuine article, I gave Mu Voice's Doubler Stereo program a try. The result was smooth, wide and tightly choru-sed, and the plug-in's humanize algorithm did wonderful things to keep the effect from

sounding like an effect. One feature I'd like added here would be a modulated/automatable slider to let you adjust the "lateness" of each doubled part on a syllable-by-syllable basis for even more realism.

On the pre-chorus duet, I experimented with the second voice singing above and below the lead. Playfully taking it to extremes, I was impressed by how the vocal retained its original character and quality, going up by as much as seven or eight semitones. Even at a full octave, the singer clearly hadn't been transformed into someone else, let alone a young girl or chipmunk. Going down was a slightly different story, with one or two semitones being the limit before the "throat length" really started to change and, at even lower settings, weird audio stretching artifacts made solo use completely out of the question. Lower parts can certainly hold their own in a three- or four-part harmony, kept fairly low in the mix.

In developing the trio preset, I appreciated all the voicing parameters in the Harmony mixer. It was great fun to "place" the vocalists around the mic using the directional panning, automate their individual levels, fine-tune the formants and create interesting harmonic landscapes using oddball effects—such as a telephone filter—on the lead vocalist during harmony parts.

A "lazy" vocal track can present a tug-of-war between seeking pitch accuracy and retaining expression. This is where the sliders for analyzing range and setting the tuner's impact made Mu Voice respond musically to this particular vocalist, who stylistically bends and whines a lot. In this instance, I could zero in on a sweet spot where Mu Voice picked up lines that sounded a little flat without slamming drifting notes or creating expressionless jumps. Overall, the expressive nuances of the original performance were well preserved.

#### AN INTELLIGENT CHOICE

The Chord Scheme's lookup tables are deep and flexible; plus, its ability to simultaneously administer chord and voice properties make Mu Voice a truly "intelligent" harmony processor. And with forthcoming MIDI support, this plug-in should become even more fun and immediately usable, particularly in live settings and for experimenting in the studio. Mu Voice can satisfy both the musician and tweak-head in all of us. Price: \$279.

Mu Technologies, [www.mu-technologies.com](http://www.mu-technologies.com). ■

*Jason Scott Alexander is a producer/mixer/remixer based in Ottawa, Canada.*

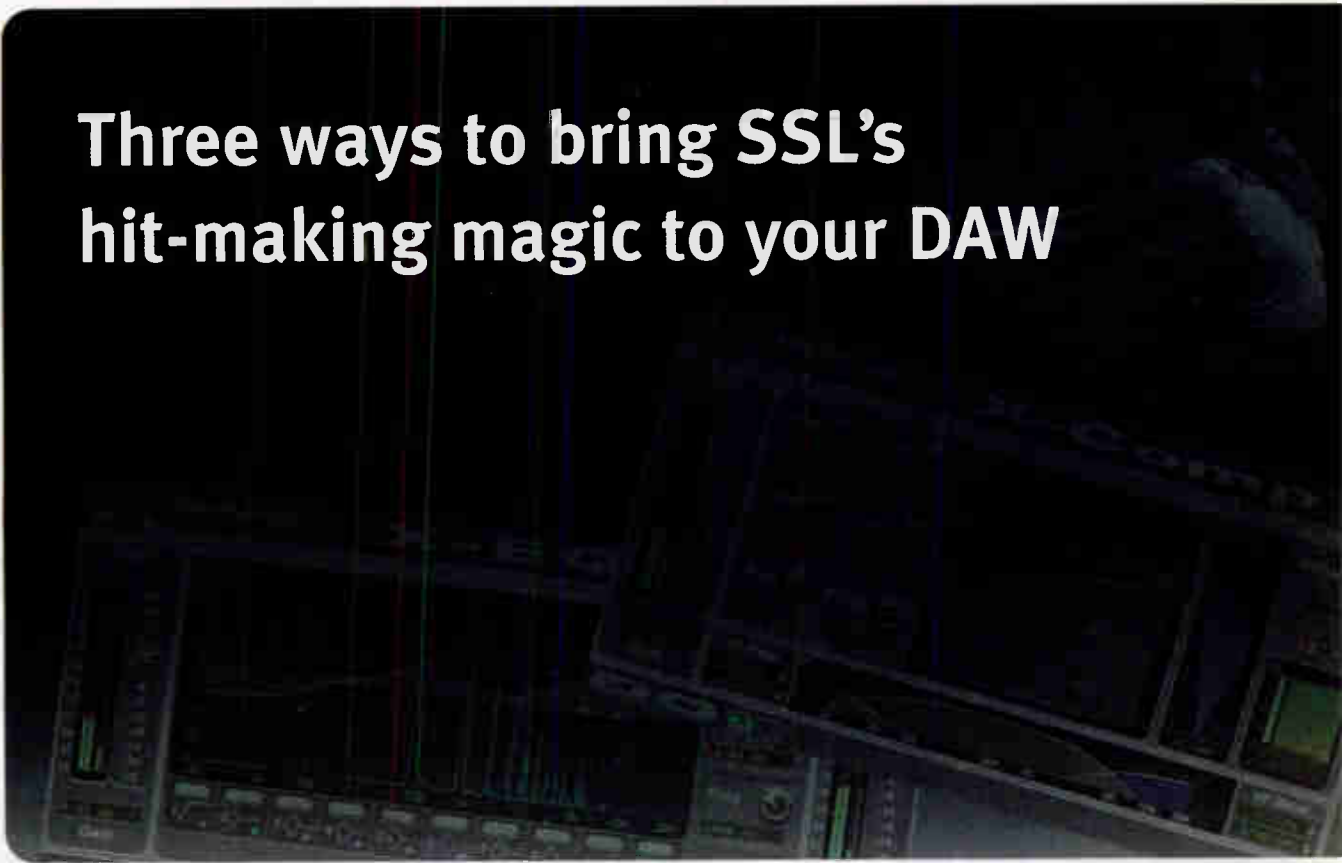
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# Peluso 22 47SE Tube Microphone

## Modeled Legacy Transducer With Remote Pattern Switching

The Peluso 22 47SE (Standard Edition, \$1,967) tube mic is designed to look, feel and reproduce sound just like a brand-new, long-bodied Neumann U47. The mics are hand-assembled and tested in Floyd, Va., using the German manufacturer's original published specifications and frequency response graphs as a design goal, as well as a testing standard for quality control. Peluso obtains its mic parts, raw materials and machine-shop work from around the world: The 22 47SE's silver-foil output capacitors, resistors and capsule Mylar come from Germany; its transformers are made in the U.S. and Japan; and its outer cases and capsule back plates are machined in China.

### DOPPELGÄNGER DEFINED

The 22 47SE circuit closely follows the U47, with some value changes to achieve the best noise floor. It duplicates the grille-mesh material and the internal space surrounding the capsule. The mic's capsule is center-polarized, and its dimensions are the same as the original M7. The Peluso mic is 34 mm in diameter, has a 6-micron Mylar diaphragm and is coated with a 300-angstrom-thick layer of gold. All Peluso capsules are tensioned using the company's proprietary system.

The mic weighs 1.88 pounds and connects to the power supply with a supplied 16-foot cable using a 7-pin, XLR-style connector at each end. The included 110/230VAC power supply, unlike the original, has a solid-feeling, rotary remote and polar-pattern switch that changes the mic from omni through cardioid to figure-8 in nine steps. A rugged, handsome attaché case holds the microphone (which has its own foam-lined wooden box), the power supply, shock-mount and all cables.

### 47S TOE TO TOE

Doing an A/B comparison against a mic that is nearly 60 years old is problematic. Short of jumping into a time machine and traveling back to 1949 to compare the 22 47SE to a new Neumann U47, there is no accounting for the aging of components, tube changes, capsule degradation or power supply issues. What's more, exist-

ing U47 models have been subjected to decades of use and abuse, as well as repairs and modifications.

For my first test, I located a Telefunken U47 in a private museum collection. Except for being powered up periodically to confirm operation, it has been stored in its original box and unused for 30 years! The museum model is as close to my mythical "time machine" test as possible.

I set up both the 22 47SE and the Telefunken U47 for vocals. Practically speaking, the Peluso is much easier to set up. Its cable is easier to connect, and the shock-mount swivels to any position due to a single knurled captive nut that holds the mic securely in the basket. There's no need to worry about the mic falling out.

I used my hand-built, FiveFish Studios SC-1 direct-coupled preamp for both mics and had my vocalist perform separate takes at the same measured distance from each mic. The U47 offered a very small increase in lower midrange/upper bass and required more mic gain than the Peluso. The U47 was only slightly duller by comparison to the 22 47SE, but that is not to say that the Peluso is a bright mic. I have to emphasize that I'm talking about minute differences that would disappear as soon as any post-processing was applied to recordings using either of these mics.

I tried the mics on acoustic guitar individually at the same distance—in front of the 12th fret. I found the vintage Tele to sound "closer"—ever-so-slightly more present. The Peluso sounded great on acoustic guitar, better than most large diaphragms close to acoustic instruments.

The differences between the Peluso and a vintage 47 nearly vanished when I repeated my tests using a U47 with a Siemens badge at LAFX Recording Services. That studio's U47 is a popular rental, known for its good sound, reliability and low noise floor. The Siemens U47 has a different screen-mesh design from the old Tele or the Peluso,



and had more output level, closely matching the 22 47SE's. Both mics sounded the same, except for the Siemens U47's nearly imperceptible increase of lower midrange/upper bass. Using the studio's API console mic preamps, both mics exhibited a slight amount of muddy, low midrange when recording acoustic guitars. I find this behavior very typical, and it's the main reason I don't use vintage large-diaphragm tube mics on close-miked acoustical instruments.

### OLD-SCHOOL ANEW

Using the 22 47SE was rewarding. It sounds just like the world's best U47, but without the unpredictable nature of those old mics. I found it could take hotter vocal levels with less distortion than an old U47 and, at the same time, exhibit a lower noise floor. That's helpful when digging out quiet vocal bits later in the mix. The SE is capable of 140dB SPL with 12mV/Pa sensitivity.

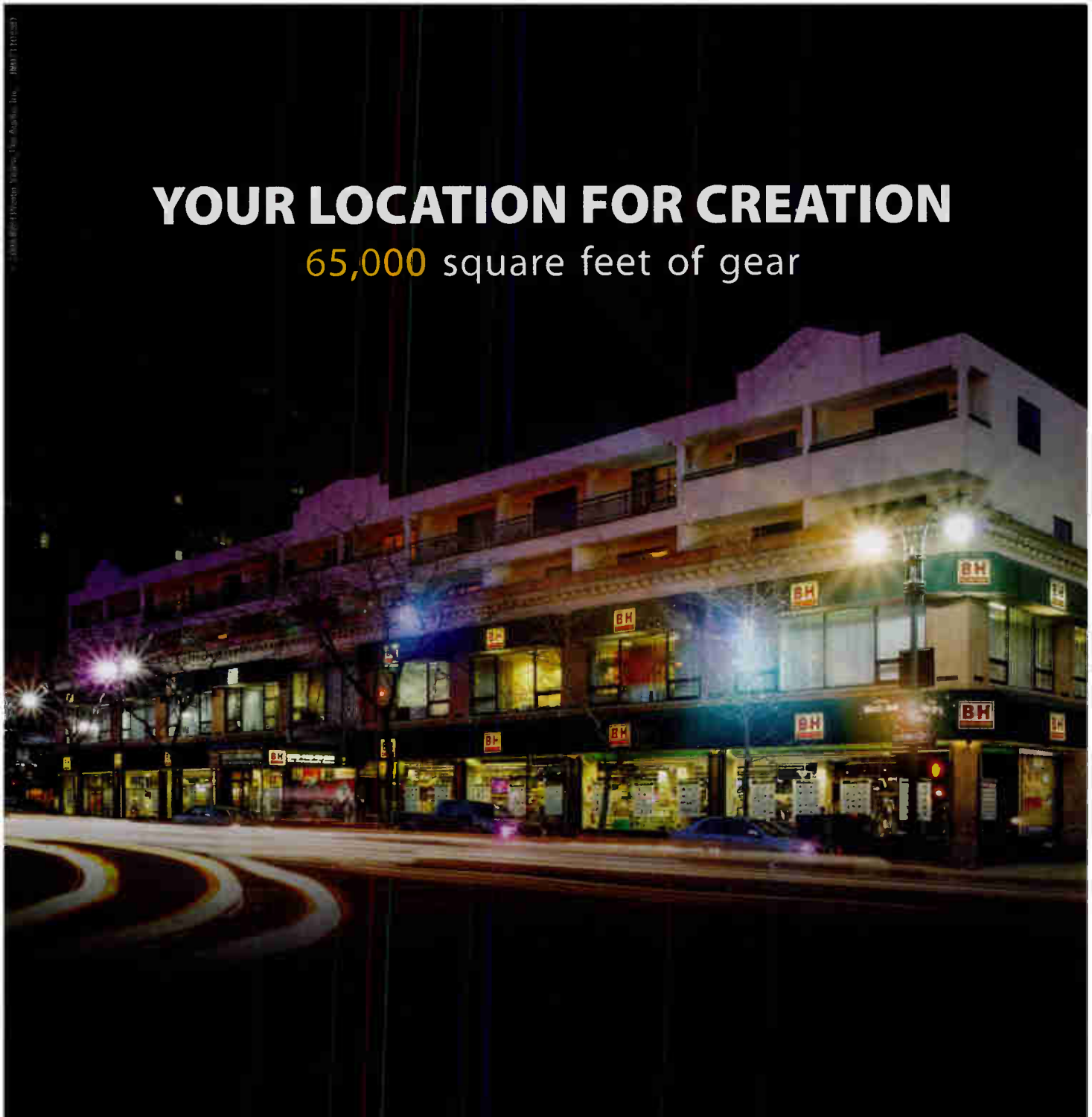
I also liked using the remote pattern switch. It fixes a problem common to vintage mics—the noisy and intermittent pattern switch on the mic itself. Having the 22 47SE is like owning both a U47 and U48. The U47 has only cardioid and omni polar patterns, and the U48 variant, which came out later, has only figure-8 and cardioid.

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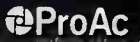


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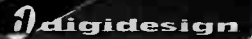
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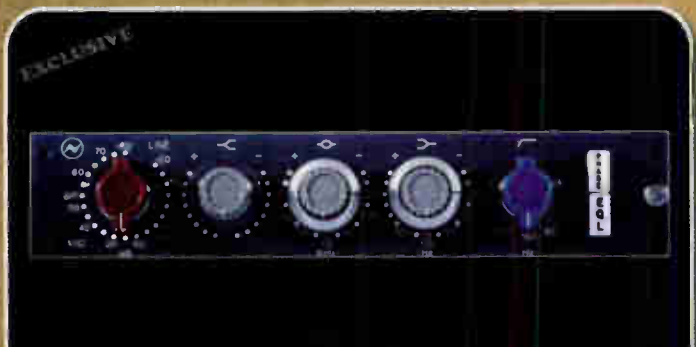
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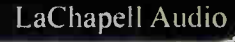
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PHOTO: RICK CLARK

Anna McGarrigle (button accordion) and Kate McGarrigle (banjo) tracking with Emmylou Harris

## EMMYLOU HARRIS AND BRIAN AHERN

TOGETHER AGAIN

By Rick Clark

Few artists in any genre have created a body of work as substantive and rich as Emmylou Harris. Over the years, Harris has mined great songs from folk, country and pop music traditions and showcased their compelling power with her own unique readings. She has also been a selfless champion of many artists and writers, and has written a number of superior songs herself. Harris has received many awards for her work, and this year she was inducted into the Country Music Hall of Fame.

Harris' string of hits stretches back to 1975, when she began working with producer Brian Ahern on a successful run of 11 albums that included a number of classic tracks and hits like "Together Again," "Boulder to Birmingham," "Sweet Dreams," "If I Could Only Win Your Love," "Two More Bottles of Wine," "Beneath Still Waters" and "Too Far Gone." *White Shoes*, which was released 25 years ago, was the last album the two made together. Since then, Harris has put out many fine and critically acclaimed albums, but it is her work with Ahern that has proven to be the most influential and enduring over time.

During the past few years, Harris and Ahern have occasionally revisited their creative dance, and most recently it has resulted in a beautiful new release titled *All I Intended to Be*. The seeds for this new collaboration began during a

reunion of Harris' legendary Hot Band for the 2004 ASCAP Country Music Awards show, where Harris was presented with the Founders Award.

"Since the award was about history, she asked me to come in to supervise the rehearsal and to re-create the Hot Band session vibe," Ahern explains. "After the show, we were sitting at dinner when she asked me to do another album."

By that time, the two had already reunited for a number of recordings for various projects: Robert Redford and Ethan Hawke movies, duets with Willie Nelson and Rodney Crowell, and, with Kate and Anna McGarrigle, three songs for the re-issue of Harris' luminous Christmas album *Light of the Stable*. Especially moving was her version of Joni Mitchell's "The Magdalene Laundries" and a richly imagistic track called "The Connection," which appeared on *The Very Best of Emmylou Harris: Heartaches and Highways*, and earned Harris a 2005 Grammy for Best Female Country Vocal Performance.

"We've always worked incredibly well together," says Harris. "Even from those first sessions, when I was so unsure of myself, it wasn't long for me to feel comfortable because one of Brian's many talents is his ability to sense an artist's strengths and encourage them without putting you on the spot. He allows you to grow at your own pace and gives you just enough room so that you don't hang yourself, but you also start to get confidence. I really think Brian understands that every artist is completely unique and has a vision down there somewhere. He helps you discover that by giving you all the tools. I felt I had a safety net, that he was listening to everything, and sometimes just him not saying anything was exactly what you needed. It's a very nurturing presence."

*All I Intended to Be* celebrates some of the people who have journeyed with Harris over the years on her artistic path, including Dolly Parton, Vince Gill and musicians Glen D. Hardin, Stuart Duncan, Steve Fishell, Richard Bennett (who has produced Harris) and the Seldom Scene. The album also showcases Harris' talent for gathering great songs, as well as

—CONTINUED ON PAGE 108



Brian Ahern and Dolly Parton

PHOTO: NOUANO BOBTE

# LADY ANTEBELLUM

ON THE FAST TRACK TO SUCCESS

By Blair Jackson

In this age of “Young Country” radio and ‘round-the-clock videos on country television, it helps to be youthful and attractive. Even so, if you don’t have the chops or the tunes, you’re probably not going to get very far. The new Nashville group Lady Antebellum (“Lady A” for short) is a band that seems tailor-made for these times. They are young and good-looking, eager and enthusiastic; they have some pedigree; and they play a very appealing mix of country, rock and soul-influenced tunes. Their new self-titled debut album is already creating quite a buzz: The first single, “Love Don’t Live Here,” has been getting heavy airplay and was named Single of the Week on iTunes in mid-March—a slot that goes to a country song just four times a year. The group is up for Top New Group at the 2008 Academy of Country Music Awards, to be held on May 18, and they’ve been tagged by everyone from *Billboard* to *The Boston Globe* to Clear Channel radio as one of the Faces to Watch for 2008. Not bad for a group of 20-somethings with very little music business



experience.

Twenty-one-year-old singer/songwriter Hillary Scott is the one with the pedigree: Her mother is country singer Linda Davis, who enjoyed a number of hits in the '90s and earned a Best Country Vocal Collaboration Grammy with Reba McEntire for “Does He Love You.” Davis is still recording, too: *Young At Heart*, an album of standards, was



Lady A (l-r): singer/songwriters Charles Kelley and Hillary Scott, singer/multi-instrumentalist Dave Haywood.

released in 2007. Scott’s father is a musician, too: Lang Scott played in Davis’ band back in the day and produced *Young At Heart*.

The other two members of Lady A—singer/songwriter Charles Kelley and multi-instrumentalist/harmony singer Dave Haywood—have known each other since middle school in Augusta, Ga. Both also studied finance at the University of Georgia, but left that world behind when they moved to Nashville to try to make it in music. Meanwhile, Scott was honing her songwriting chops working with Victoria Shaw (who has penned songs for many artists, including Number One hits for Garth Brooks, Doug Stone and John Michael Montgomery).

The trio originally hooked up in the summer of 2006 after admiring each other’s music on MySpace, and the chemistry was instant and palpable. They immediately began writing songs together (aided by Shaw), then started playing around Nashville clubs, enlisting a few other musicians to supplement the trio, which featured Scott and Kelley trading off on lead vocals and singing stirring duets, and Haywood providing solid support with his harmonies and guitar work.

It didn’t take long for the word to get around. At a showcase gig at the Nashville club 3rd & Lindsley, noted country producer Paul Worley was *very* impressed. “I walked in and saw them play, and song after song after song was *really* good,” he remembers.

“I thought, ‘Holy cow! Who *are* these guys?’ ‘Cause you’re lookin’ at these kids who are fresh-faced and young and green in so many ways, but it was also obvious that they had something special.” Worley knows a thing or two about great country music and young bands. The producer/guitarist has helmed dozens of albums, including formative works by Highway 101, Desert Rose, Martina McBride, the Dixie Chicks, Trace Adkins and many others. Lady A snagged a deal with Capitol Nashville and Worley agreed to co-produce with Shaw, who had already been guiding the band through its growing stages.

Worley comments, “Victoria helped put the group together—helped them hone their songs, put their set list together and co-wrote a lot of the songs—so by the time I came onto the scene, she’d already been there for half a year—maybe longer—with the group, so that was invaluable. We worked together very well. She is so gracious a person and we’ve been fans of each other for a long time. She was willing to let me show her some things, and her history with the group was so much longer than mine she was able to clue me in on how the personalities flowed.”

When it came time to record the group’s album, the studio choice was a natural: For the past couple of years, Worley has operated mostly out of Warner Bros. Studio on Music Row. The building was originally the

—CONTINUED ON PAGE 112

## LORETTA LYNN'S "COAL MINER'S DAUGHTER"

By Barbara Schultz

In her 1976 memoir, *Coal Miner's Daughter* (written with journalist George Vecsey), Loretta Lynn dispels the myth that all of her song lyrics come from her own diary. "Honky Tonk Girl" was inspired by a young woman Lynn saw crying into her beer in a bar. "You Ain't Woman Enough (To Take My Man)" describes the domestic strife of one of her fans. But if there's one song that sets Lynn's personal memories to music, it's her affectionate, understated appreciation of her childhood, "Coal Miner's Daughter."

Like the song says, Lynn was born into a loving family in a shack in Butcher Holler, near the coal-mining town of Van Lear, Ky. Born in 1935, she was the second of eight siblings, and her family's struggle for survival was unfortunately commonplace. Her father Melvin Webb's health suffered cruelly from years of hard labor and breathing coal dust. Her mother, Clara, bore all but one of her children at home because the family didn't have the resources for a hospital stay. Lynn's first memories of singing for an "audience" are of shouting hymns out to the hills as she rocked one of her younger brothers or sisters on their front porch.

"That was my main job," she writes in her memoir. "I'd swing and rock them babies and sing at the top of my voice."

Lynn met her husband, 19-year-old Oliver "Doolittle" Vanetta Lynn, at a "pie social" when she was 13 years old, and she was married, against her parents' wishes, before she turned 14. Lynn was pregnant with her first child when Doolittle was offered a job on a ranch in Washington state, and the Lynns began to raise their growing family in the Northwest.

Several years after their move to Washington, Doolittle surprised his wife—by then a mother of four—with a guitar and told her to learn how to play it.

"Doo said I had a good voice, and he wanted me to sing. What did I think?" Lynn recalls in *Coal Miner's Daughter*. "Well, I was surprised. Stunned, you could say. I didn't know Doolittle thought that much about my singing. I was proud to be noticed, to tell you the truth, so I went right to work on it. When the kids were in school or asleep at night, I'd sit in my front room, learning how to play the guitar better. I never took no lessons or nothing—I just played. After a while, I got where I could play a pretty good tune on it. First I was singing Kitty Wells' songs on it, but after a while I started making up my own."

Doolittle proceeded to talk his shy young wife's way into club dates. Her first single, "Honky Tonk Girl," was bankrolled by a wealthy Vancouver widower named Norm Burley; he saw Lynn perform "My Shoes Keep Walking Back to You" on a TV talent-show broadcast from Tacoma, Wash., and simply decided he wanted to help her career. Burley released the single on a one-shot label he called Zero Records. He even pitched in for a radio-promotion tour; the Lynns traveled from Washington to Nashville, stopping at every country radio



station along the way to encourage disc jockeys to play the single. By the time Lynn arrived in Nashville, she had a hit single and a little more confidence.

Lynn writes that she talked her way into her first appearance on the Grand Ole Opry radio program by "pestering" the manager, Ott Devine. Not long after that, they decided that she could use some help to make more headway in Music City, so they turned to the Wilburn Brothers, popular country artists at the time who also ran a talent agency. They signed Lynn and brought her into their own studio, Sure-Fire, to record a new song they could shop to labels. That demo song was called "Fool Number One."

"They figured I might as well start at the top, so they took the 'demo' record to Owen Bradley at Decca Records. Owen Bradley is one of the biggest men in the business," Lynn wrote in her 1976 memoir. "He talks like an easygoing country man, but he's been responsible for more country music hits than anybody."

When Lynn and the Wilburns first approached Bradley, the now-legendary producer was still recording all of his productions in the 3-track Quonset Hut studio, where he and engineer Selby Coffeen had captured Patsy Cline's masterpieces, such as "I Fall to Pieces" and "Crazy." He owned that studio with his brother, Harold Bradley, who is now widely considered the most-recorded guitarist of all time, with dozens of credits including Cline, Ernest Tubbs, Ray Price and Elvis Presley, as well as Lynn.

"Owen was looking for a song for Brenda Lee," Harold Bradley explains. "The Wilburns were pitching him Loretta's song, and he liked the song, but he wanted it for Brenda Lee. But they said, 'You can't have the song without the artist.' So they reached a compromise."

Owen Bradley signed Lynn to a six-month contract with the agreement that Lee would record "Fool Number One" but Decca Records would put out a different record for Lynn if she had another song. She had plenty, and she and Bradley soon had a string of hits with tracks such as "Blue Kentucky Girl," "You Ain't Woman Enough (To Take My Man)" and "Fist

City." Lynn and Owen Bradley also developed a very warm working relationship.

"I always felt like Owen was a father to me," Lynn writes. "He could see I was just a scared little country girl, and he made me relax. I remember one time, after we signed, we didn't have any money. I started crying in his office, and he gave me \$1,000 out of his pocket, not from the company, to pay my rent and the back bills. The next year, we were making some money and we paid

as much as I would like to design and build Decca's recording studio in Nashville, we should go somewhere else.

"He said, 'I have my studio out in Mt. Juliet, but I can't record there because it would be a conflict of interest. I said, 'I don't understand that. Decca needs a recording studio to record their acts. Why don't you have Decca pay the studio a fair fee per hour and rent the studio to record Decca artists?' And he said, 'You think that would be all

Owen [Bradley] was very wise in capturing her talent.

Whatever she was putting out, he accepted it as having charm and sincerity. Singing those songs was her great passion, because she believed them and lived many of them.

—Harold Bradley

Owen back. But I ain't never forgotten that man helping me like he did."

"Owen was very wise in capturing her talent," Harold Bradley says today. "Whatever she was putting out, he accepted it as having charm and sincerity. Singing those songs was her great passion because she believed them and lived many of them."

Not long before Lynn wrote and recorded "Coal Miner's Daughter," Owen Bradley sold his Quonset Hut studio to CBS/Columbia. For a while, he continued recording there, but then Columbia decided to stop selling studio time to non-Columbia artists.

"Owen called me, and said, 'They shut me out of my own studio. I can't record there anymore,'" says Jim Williamson, the engineer who recorded most of the Lynn tracks that Bradley produced. "And I said, 'Well, Owen you gotta remember, you sold the sucker!' And he said, 'Well, why don't you come over here and talk about coming to work for me.' And that really hit me between the eyes because Owen Bradley was the father of the music business in most of our minds. To work for him, you were at the pinnacle of your career.

"So I left CBS and went to work for Decca," Williamson continues. "He told me one of the things he wanted me to do was design and build a recording studio at South Street and 16th. I went down with some equipment that I'd rented and determined that particular location, due to the WLAC-AM radio tower, was just loaded with RF. We would have had to build a big screen room to make it work, and then we would still have problems. I told him that from my point of view, that

right?" And I said, 'I know it would be all right.' Owen was probably the epitome of an honest businessman."

So Owen Bradley, Williamson and Decca's A-list musicians moved their main recording operations out to Bradley's Barn in Mt. Juliet. Williamson remembers well the gear they had out in that studio, largely because it provided a constant challenge: The console was a 4-channel, 12-input P.A. board from Altec-Lansing.

"It had an outrigger, which was an Ampex MX10, 4-mic in, 2-channel out mixer that was mounted in a side rack," Williamson says. "Between recording and playback, you had to break the whole cotton-picking thing down and repatch it for playback, which, of course, lost your levels, so you had to set levels every time you had a playback. After Decca began using the studio exclusively for its recordings, Owen authorized upgrades that helped tremendously. The Ampex mixer had been added to facilitate driving an 8-track recorder. A 16-track recorder was added some time just before, or after, the studio moved."

The recording sessions that included "Coal Miner's Daughter" took place in October of 1969. Williamson says he can still see the musicians out in the room in his mind's eye: "You want me to draw you a mental picture? Buddy Harman's drums were center-stage in an open booth that offered minimum isolation, so I had to use the omni position on many of the mics and close proximity to gain more control.

"So with the drum booth at the center of a clock, 12 o'clock was Hargus 'Pig' Robbins



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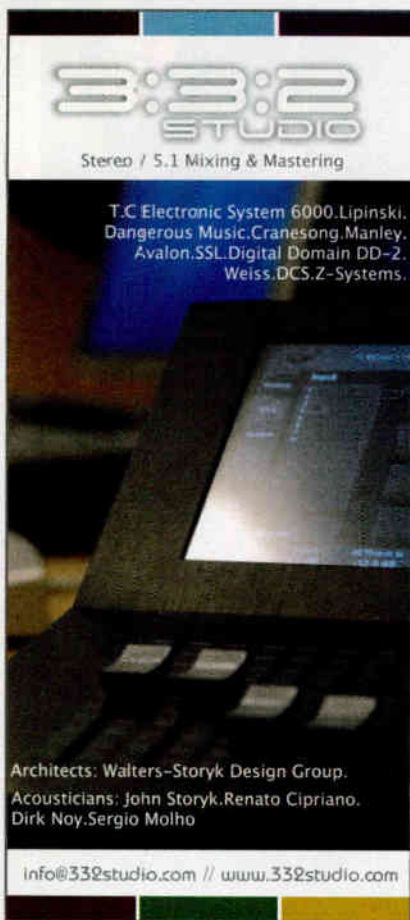
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on piano with Bob Moore in close proximity on bass; 1 to 2 o'clock would be rhythm guitars; 3 and 4 o'clock would be electric and steel guitars; Loretta would be singing at about 5 o'clock; and The Jordanares singing background at 6 or 7 o'clock."

The guitarists on "Coal Miner's Daughter" were members of Owen Bradley's usual A-team: Harold Bradley, Grady Martin and Ray Edenton. Williamson recalls using a Neumann U67 mic for electric and steel guitars, and a Schoeps on rhythm. He says the lead vocal mic would have been a U47 or 67.

While most of the song was cut live, Harold Bradley believes that Bobby Thompson's banjo work was overdubbed. The only overdub Williamson remembers doing was one extra word: "Loretta came into the control room and we made a playback," Williamson says, "and she said, 'Aw, shucks, I wanted to say, 'yeah' going into that last chorus. I wanted to say, 'Yeah, I'm proud to be a coal miner's daughter,' and I left it out.' And I said, 'Well, why don't you jump out there and give me a 'yeah'?' And she said, 'You can do that?' And I said, 'Just listen along, and when it gets to that point, you just go ahead and bellow out 'yeah' and we'll have it.' So I chose a track that was open, and I just walked along a few bars before and she said 'yeah,' and it was over."

It's perhaps a little-known fact that Lynn's original composition had nine verses. "My brother cut it down to the six he thought were more relevant," Harold Bradley says, "because she'd written a short book there."

"One verse was about mommy papering the walls with magazines, right above my head with pictures of movie stars and such," Lynn writes. "Another was how the creek would rise every time it rained, and daddy would have to cut logs across so we could get downhill. The third was about hog-killing day in December so we'd have fresh meat for Christmas."

That "short book" stayed in the can for almost a year until Decca released it as a single in 1970; Lynn says that for a long time, she "didn't believe anybody would buy a song just about me." But the song clearly resonated with a broad audience; it rose to Number One on *Billboard's* Country Singles chart, contributed to Lynn winning the Country Music Association's Entertainer of the Year Award in '72 and, of course, became the basis of Lynn's autobiography and hugely successful *Coal Miner's Daughter* film starring Sissy Spacek.

Williamson continued doing studio work for several more years before changing to a career in real estate, but he looks back fondly on his days working for Owen Bradley: "It

was a tremendous treat, and I just learned googles from the guy; more than you could ever think. And we were buddies right up to the day he died."

Owen Bradley passed away in 1998. His brother Harold, now VP of the American Federation of Musicians, is quick to point out that he's still making musical memories, but he knows that those days at the Quonset Hut and in Bradley's Barn, working side-by-side with his brother, were some of the best.

"One thing about Loretta," Harold Bradley says, "when you walked in the studio, you were going to get a hug, and when you left, you were going to get a hug. We all became like a family. The business part was secondary to the personal part of going in and meeting an old friend and having a party and making a few records." ■

## EMMYLOU HARRIS AND BRIAN AHERN

FROM PAGE 104

her own gifts as a songwriter.

Harris has long kept a huge library of stashed song-finds on what she calls "material cassettes," and as always she shows her extraordinary knack for taking others' songs and making them feel like they came from her heart. Ahern's empathetic production and arrangements go a long way to making *All I Intended to Be* one of the most emotionally satisfying albums Harris has done in years.

Six of the tracks on the new album are Harris' own compositions. This is an area where she has shown tremendous growth during the past several years, as her songs on *Red Dirt Girl* and *Stumble Into Grace* show. One song of *All I Intended to Be*, titled "Gold," is a stripped-down "three chords and the truth" gem of classic country. "Those are the hardest songs to write," she comments, "because you're working in a very small framework and you can't get clever. You have to come out and say exactly what you mean."

Most of the work on *All I Intended to Be* took place at Ahern's Easter Island Surround studio, which got its name from the 8-foot stacks of gear that surround the control room like the ancient Pacific Island statues. Among the projects Ahern has done there are Harris' *Producer's Cut* (a DVD-Audio surround collection of classic Harris tracks) and surround mixes for Johnny Cash and three Jimmy Buffett DVDs.

Looming behind the studio is the legend-





Welcome to the control room: Ahern during overdubs at *The Village*

ary 42-foot, lead-lined Enactron truck. Deployed for all the great Harris productions, it was also a highly sought-after mobile facility used by such diverse acts as Black Sabbath, Bob Dylan, Barbra Streisand and James Taylor.

Even with these options, however, several basic tracks on Harris' latest required a larger band, and for those Ahern booked the Sound Emporium in Nashville, where he produced Ricky Skaggs and a Number One country record for Johnny Cash. "I like recording at home, but not playing host," says Ahern. "So when the contingent exceeds two people, I book a studio." Ahern mounted his 16-track headstack on Sound Emporium's Studer A827 to record bass and drums at 15 ips on 14-inch reels. "I like to use 14-inch reels because it cuts down on tape waste, and while you are changing smaller reels, the best performances could be slipping away."

Another member of the creative team who has contributed to the excellence of this new album, as well as most of Ahern's productions since 1975, is engineer/mixer Donovan Cowart. "Donivan puts up with me. I'm getting old and irascible," states Ahern. "But the common lingo tends to build after 30 years. He's become an irreplaceable asset."

To ensure that there would be plenty of creative sparks, Ahern brought in a group of world-class players. He notes wryly, "If you are the smartest person in the room, you're working with the wrong people." Musicians included original Hot Band member Glenn D. Hardin (keys), Glen Wolf (bass), Harry Stinson (drums), Richard Bennett (guitar)

and Kenny Vaughan (guitar).

Ahern miked Wolf's upright bass with his rare, large British ribbon mic called a Reslo right off the bridge to achieve what he calls "knuckles—you could hear what Glen had for lunch." The Reslo ran through a Neve 1084 mic pre and was lightly compressed with an LA-2A. An RCA 44 was placed on the floor looking up at the bass with a big block of foam behind it so the backside of the mic heard nothing. That ran through a Tube-Tech CL1B compressor. "Glen finds a way to be musical with one note at a time," says Ahern admiringly. The producer places his microphones on Gramma insulating floor risers designed to hold guitar amplifiers.

Guitarist Bennett was situated in an all-wood room designed for string sections with four bidirectional ribbon mics to capture his sound. According to Sound Emporium engineer Kyle Ford, "For the close stereo sound, Brian hung two RCA Varicoustics on the only stereo bar I've ever seen like this—at different heights, on the 12th fret and at the sound hole. Brian had Richard face the curved wood wall, where he spread out a pair of Wes Dooley's AEA R44 CNEX microphones. Huge vintage Turner hybrid microphones faced Kenny Vaughn's amplifiers, which included Brian's Space Echo feeding his Fender Deluxe."

Stinson, one of Nashville's consummate session drummers, observes, "The first question Brian asked when he hired me was, 'Where do you want to be set up?' That question never gets asked! Nothing about this was typical Nashville. Emmy and Brian still like to approach music as an art form, whereas Nashville—if I can make a political

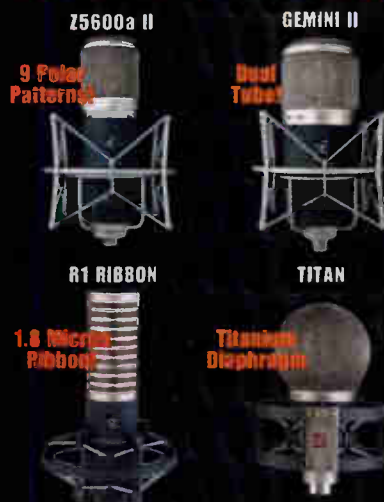
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statement—is about doing it quick, fast, formula: ‘Let’s go with all these plug-ins.’”

Stinson also overdubbed drums at Ahern’s house. “When Harry is overdubbing to something previously recorded, he can hear, sympathize and play through the center of the mayhem,” says Ahern.

Final overdubs took place at The Village in West L.A., where Ahern had been working with an all-star band on another project. “Emmy’s album still felt sleepy, so I peeled off two of my ringers to contribute”: Greg Leisz and Patrick Warren for stringed instrumental overdubs and keyboards, respectively.

“Brian can walk the line between allowing you to instinctually do what you do to a song and also knowing how to get what he wants out of that person by just a few carefully chosen words of direction here and there,” says Leisz. “It’s a really good combination for somebody like me, and I think it’s a really important part of what he does as a producer. I think to be completely left alone without any direction at all is sometimes frustrating because you want a little bit of feedback.”

“On rare occasions, a producer may superimpose [his own vision],” Ahern adds. “‘Broken Man’s Lament’ is a song about a mechanic who lost his wife to her singing career. To me, he obsesses on a piece of music as an artifact of his creeping insanity. I explained this to Patrick Warren who researched the ‘Whiter Shade of Pale’ B-3 organ drawbar settings.

“Extracting the best performances is Job Number One,” Ahern continues. “Great headphones, if you’re using them, are essential. We dedicated two MacIntosh MC-275 tube amps, our finest, to the headphone mixes. Everybody hears really well.”

One element that leaves a sonic fingerprint on this album is Ahern’s pervasive use of ribbon mics. “Brian has more ribbon mics than anyone I’ve ever met,” remarks engineer Ford. “He carries around a number of rare, hard-to-find mics, as well as some newer ones. I had never heard the Turners and Reslos.”

For Harris’ vocals, Ahern says, “Because recording up close to a microphone is a relatively modern concept, vintage ribbon mics are susceptible to pops and breaths. I told Wes we liked his AEA R84, but I couldn’t



Engineer Dorivan Cowart

use it because Emmy kept sneaking up on it. He built one to accommodate us. And his ribbon preamplifier was everywhere. When Vince [Gill] and Dolly [Parton] sang harmonies on ‘Gold,’ I used his big AEA 44 Cs. Dolly said, ‘I love this microphone,’ so we gave it to her!”

Dooley’s R44 CNEK was used to record Harris’ bluegrass buddies, the Seldom Scene. “Live in the room, she used a Soundelux U67. I often choose it for contralto females,” Ahern says.

Ahern and Cowart are both fond of Harris’ aggressive guitar style. Harris clearly loves playing guitar, and Ahern hired her to play on Keith Richards’ contribution to George Jones’ *Bradley’s Barn Sessions* album. “I do enjoy playing rhythm guitar,” Harris says. “I think it’s just connected to you. That’s how I learn songs: I sit down and play them on the guitar so the phrasing and the heartbeat are connected with the guitar. I find my voice through the guitar, in a way. I’m perfectly happy to have my own little picker’s corner where I’m comfortable.” For Harris’ guitar on this album, they sometimes used an AKG C-24 in an M/S configuration and at other times one of four RCA Type BK-5Bs.

For mic pre’s for ribbons, Cowart and Ahern also liked one made by Wes Dooley. “It works well: You set it up right by the ribbon mic and amplify it before you make a long run into the studio with it,” explains Cowart. “It helps hold the gain together; it has lots of gain and low noise.”

Over the course of the project, Ahern and Cowart used some other favorite pieces of gear one might not expect. “We have a discontinued Yamaha reverb unit Keith Richards showed me in New York that provides convolution presets of a wood-domed

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## recording notes

studio," says Ahern. "We also used it to take quad convolution recordings of the soon-to-be extinct Lexicon 224XL. We used two low-bit Prime Times. And the Germanium Tone Control and the Zener Limiter seem to be in successful pursuit of the best vintage sonic markers and character that we've come to know and love over the last 40 years."

In a time when so many records sound like the life has been squashed out of them from overcompression, Ahern's productions are rich in dynamics. Vocals and instruments rise and fall naturally, enticing the listener to ride with the feeling of the moment.

"That's the emotion, and the dynamics has a lot to do with the emotion," says Cowart. "If you suck all that out, you're just left with noise. I'd much rather have somebody have to lean into the mix than be blown against the back wall."

Ahern adds, "It provides a sense of people being together in a room rather than rash waveforms. We don't use any stereo gain reduction. Let mastering do that."

Georgetown Masters' Andrew Mendelson mastered the album; he remarks that *All I Intended to Be* is an exceptionally "emotional" album that has "loads of vibe and makes no concessions to the highly compressed sound of what you hear today," he says. "As a result, it stands out and sounds totally fresh."

"Working with Brian and Donivan gives me everything I need and lets me know when it's not happening," Harris concludes. "If you're sounding good to yourself, you're going to stop thinking, worrying and just sing. They're also very patient. I feel more comfortable having that working relationship, that sort of 'nest' where you know everything's gonna be okay. I think we got to that point a long time ago and we sort of picked up where we left off." ■

## LADY ANTEBELLUM

FROM PAGE 105

home of Monument Records, then went through successive incarnations as a small demo studio for MTM and then Warner Chappell Publishing, which moved its offices across the street and then remodeled the building with the expectation of eventually setting up a nice studio. When AOL Time Warner sold off the Warner Music Group, there were many jobs lost and the space lay fallow for a couple of years.

"Then Paul [Worley], who was a VP at Warner Bros. at the time, decided he wanted to get the studio back online," says

Warner Bros. chief engineer and head of studio operations Clarke Schleicher. "I'd been working with Paul on many projects as an independent since the mid-'80s, and he asked if I'd be interested in managing the studio and doing the engineering. We spent about a half-million bucks, put in a Neve VR-60 console, Pro Tools HD3, brought in plenty of great mics and outboard gear, and basically fixed it so we can make records in here, which is what we've been doing for two-and-a-half years."

Not surprisingly, Warner acts get preferential rates for recording there. "Great for new artists who don't have big budgets," Worley says, "but we've also been booking lots of non-Warner's acts. It's a really good studio, and even when Capitol comes in and pays the going rate for a group like Lady A it's about half what you'd pay in some other places. So Victoria and I were able to really take our time with Lady A; we didn't have to rush it through because we were worrying about how expensive the studio time was."

It helped, too, that they spent considerable time on pre-production at a rehearsal hall before going into the studio. For three days, the group and the session players who were brought in to augment the trio—plus their regular lead guitarist, Jason "Slim" Gambill, and drummer Brice Williams—spent long hours working on arrangements, figuring out guitar and keyboard tones, etc. "I wanted the outside players to understand what it meant to be part of this band's album," Worley says. "We worked out a lot of things in rehearsal that we then didn't have to spend time on once we were in the studio." Schleicher adds, "That doesn't mean we didn't do any experimenting with sounds once we were recording, but at least we knew what we were after and the way the songs would be structured [instrumentally]."

The Warner Bros. studio has a big tracking room with high ceilings that Schleicher says is wonderful for recording drums in ("Most of the reverb you hear on the drums is the room," he notes) and six booths that all have excellent sight lines: "They all have pass-throughs and they all have glass doors, and that's one thing everyone likes about this studio; it's one reason we stay so busy as a tracking facility. The piano is in a booth next to the drums with a huge window, all the singers can see out into the main room and I truly believe that translates into better tracks because everyone can feed off each other so easily."

There was nothing terribly unusual about the tracking sessions, which took place in two different periods with some slight changes in personnel. For the drums,

Schleicher used a Shure 57 on the snare, Sennheiser 421s on the toms, Telefunken 251 as overheads, a FET 47 and an Audio-Technica ATM25 on the kick, various GML mic pre's and EQs, and Neve 1081 pre's on the hi-hat and overheads. For guitars, Schleicher says, "I used a technique Neil Dorfsman showed me years ago and I still love. He uses a 57 and then a brighter condenser mic, like an AKG 451 or 452, and he puts the AKG in at like a 45-degree angle and then blends the two microphones instead of having to use equalizers. Then we'll put up a room mic, too."

When it came to the all-important lead vocals, Scott and Kelley would sing live with the band during tracking, and Schleicher says that some of those scratch vocals made it through to the final mix. As Worley notes, "Those kids can really sing. Take after take, they were strong. It's not something you see every day, especially with singers so young." For Kelley's vocals, Schleicher used a Korby 47 (Korby is a Nashville company that makes a "convertible" mic with six different capsules) into a GML pre and EQ, and a Tube-Tech compressor. "Hillary used a really sweet [Neu-

mann] 67 we have here, along with the GML and Tube-Tech gear," the engineer says.

To Worley, "The vocal is the most important thing, and the *emotion* of the vocal is the most important thing—not pitch and not time. They're important, too, but not as much as emotion. And nobody's invented an auto-emotion box yet!"

"From working with Martina and Sarah Evans over the years, Paul doesn't like to do a lot of punching in," Schleicher comments. "He likes full performances, so he'll take five or six full performances and then he'll go in and create a comp map of the performances, and then we'll put them together. It's a real art, and he's the best there is at it, in my opinion."

Schleicher and Worley tracked strings for a few songs at Sony Tree Studios (just across the street from Warner Bros.) during the album mix. "We had about 16 players and we tripled them, so we ended up with lots of strings," Schleicher says. "One trick that Paul came up with is between string passes, we'll literally have the string players get up and move to different chairs, and if they're good-enough friends, they might actually trade instruments. What that does is give you a slightly different

sound with each pass—it changes it tonally and phase-wise, and it can help you make it sound like a larger section."

Both producer and engineer marvel at how together Lady A were in the studio. Worley mentions their professionalism and "the joy they bring to whatever they do." And Schleicher says, "We work with a lot of younger artists and usually they're kind of wide-eyed when they come into the studio, but these guys are very smart—they're very aware of what's going on. Some artists just come in and sing and kind of hope their managers will take care of them, but these guys are on top of every aspect of their career, and I love that. I love it when they're involved in everything from the tracks to the radio tour, and making decisions about what is best for themselves and working with their manager and their label. They're also really hard workers—they're either writing or on the road or singing in the studio; it's a 24/7 job for them. They don't take weekends off. They're out there doing it—all three of them. Everyone's carrying their own weight. And that's really impressive to me. I've never seen a young group work together the way they do." ■

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## The Raconteurs

*Consolers of the Lonely*  
(Third Man/Warner Bros.)

It's hard to know what to say about this bizarre, eclectic and often amazing album. Stylistically, it leaps from screamin' late-Led Zep-ish hard rock, to flowing acoustic pieces, to bits that sound like they came off some early prog-rock disc, to an epic, Dylanesque story-song. Some of this has a patchwork feel to it, as if leaders Jack White and Brendan Benson simply sat in a room and threw cool ideas at each other—"Check out this riff!" "Yeah, well, I've got this completely different-sounding chorus over here!" "Let's toss some Beatles piano on this, man!"—without much regard for cohesiveness or continuity. But that's also what makes it exciting: The sheer unpredictability from moment to moment, as songs change tempos, turn strange corners and seemingly disconnected codas magically appear. White and Benson have a similar high and thin vocal character, so even trading leads there is a continuity from track to track that helps pull the disparate parts together. And musically, there's tons going on. It feels as though every strange stompbox/fuzz tone/guitar and bass effect ever invented gets a workout here; again, it's part of the master plan to keep things both weird and interesting. I'm betting these guys dig the seriously rawkin' stuff most (like "Five on the Five"); they're cool, but not that original. My favorites are the piano ballad "You Don't Understand," the Brit-pop "Old Enough," the acoustic "These Stones Will Shout" and the aforementioned story-song, "Carolina Drama." Special kudos to White for what is a truly an original mixing job.

Producers: Jack White III and Brenden Benson. Engineer: Joe Chiccarelli. Mixing: White, Vance Powell. Studio: Blackbird (Nashville). Mastering: Vlado Meller/Universal (N.Y.).

—Blair Jackson



## Allison Moorer

*Mockingbird*  
(New Line)

Singer/songwriter Allison Moorer's latest is a covers



collection—all written or co-written by female composers. The original versions of these songs span styles from blues to country to punk, but Moorer and producer/engineer/guitarist Buddy Miller have translated each song perfectly with complex, Americana-ish arrangements. Patti Smith's "Dancing Barefoot" still has its dark, pounding rhythm, but it rocks in a more country way. She also tackles iconic songs like "Ring of Fire" and "Both Sides Now," each treated with quiet tenderness. Other standouts include a full, folksy version of Julie Miller's "Orphan Train" and a sweet, spare acoustic interpretation of Jessi Coulter's "I'm Looking for Blue Eyes." Moorer can really sing, by the way, so songs usually bloom for her, and the intimate atmosphere of Buddy Miller's living room studio only adds.

Producer/mixer/mastering: Buddy Miller. Studio: Dogtown Studio (Nashville). Recording engineer: Mike Poole. —Barbara Schultz

## Dolly Parton

*Backwoods Barbie*  
(Dolly)

Count me among those who loved Dolly Parton's turn



to acoustic/old-time/bluegrass settings in recent years—they showcased the beauty and interpretive power of her voice. But I can't begrudge her return to more commercial sounds because she still does that damn well, too. And, under the tasteful dollop of pop gloss, there are often mandolins, fiddles, acoustic guitars and banjos peaking through. Her greatest strength as a writer is her ability to write personally but make it feel universal, and this latest batch of songs, as usual, veers from self-deprecating humor to deep soul-searching. "Better Get to Livin'" and the title track are two of her best recent songs, and her take on Fine Young Cannibals' "Drives Me Crazy" is surprisingly fresh. A fine album.

Producers: Kent Wells. Parton. Engineers: Patrick Murphy, Ben Schmitt, Kyle Dickinson. Mixer: Justin Niebank. Studios: Blackbird, Kent Wells Productions, Sound Kitchen, Emerald (all Nashville). Mastering: Jim Demain, Alex McCullough/Yes Master (Nashville).

—Blair Jackson

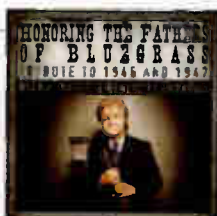
## Ricky Skaggs & Kentucky Thunder

*Honoring the Fathers: Tribute to 1946 and 1947*  
(Skaggs Family)

When I interviewed Ricky Skaggs for the "Label-Studio Combo" feature (see page 70), he talked about the impact of Bill Monroe's death on his decision to re-focus his career on his bluegrass roots. Skaggs and band's spring release is the perfect tribute to Monroe's legacy, and it's a highly enjoyable listen, too. Featured are spirited, renditions of core Monroe and Monroe/Lester Flatt creations such as "Goin' Back to Old Kentucky," "Little Cabin on the Hill," "Bluegrass Breakdown" and others. Skaggs' revered mandolin playing is always impeccable, but he doesn't always get enough credit for his vocals. *Honoring the Fathers* reminds us where this wonderful singer's heart lies.

Producer: Ricky Skaggs. Engineer: Brent King. Studio: Skaggs Place Recording (Hendersonville, TN). Mastering: Andrew Mendelson/Georgetown Masters (Nashville).

—Barbara Schultz



## Fayssoux

*Early*  
(Red Beet)

If you were a fan of Emmylou Harris' remarkable 1970s albums, then you've



heard what a beautiful voice Fayssoux has: As Fayssoux Starling (now McLean), she was a reliable presence singing alto harmony vocals on many a fine song. Now, Fayssoux's solo album successfully re-creates some of the approach and feeling of those classic Harris discs and announces its creator as a rich talent on her own. There's a pleasing mix of folk country tunes, a little honky-tonk, some uplifting gospel and plenty of gorgeous ballads. Also in that early Hot Band tradition, the arrangements here are all classy and impeccable; there's nary a wasted note. Harris sings harmony on three tunes, The Whites on some others, and pedal steel/dobro master Lloyd Green and mandolinist Ricky Skaggs add nice instrumental touches. A lovely piece of work!

Producer: Peter Cooper. Engineer: Richard McLaurin. Studio: House of David (Nashville). Mastering: Jim Demain and Alex McCullough/Yes Master (Nashville). —Blair Jackson

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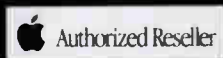
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## L.A. GRAPEVINE

by Bud Scoppa

More and more L.A.-based rock producers, engineers and mixers are doing projects in Nashville studios these days, not only because Music City boasts a plentitude of top-flight facilities, but also because the musical climate has become far more diverse—and inviting—in recent years.

"Nashville is not about cowboy hats anymore," says Joe Chiccarelli, who recorded the White Stripes' *Icky Thump* and The Ra-



PHOTO: DANNY FARRER/CK

Joe Chiccarelli at Blackbird during tracking sessions for The Raconteurs' latest release

conteurs' *Consolers of the Lonely* in Studio D at John McBride's Blackbird Studios; he also spent a couple of weeks in the same room doing overdubs for My Morning Jacket's new *Evil Urges* (which was tracked at Avatar in New York City). "Nashville today is like Seattle was in the '90s—there's just a really strong community vibe," he continues. "And I can't say that really existed 10 years ago; now, it's so much more open, with a great alternative music scene. It's not the best place in the world for a vegetarian to be, but other than that, it really feels like a town to make music in."

On a practical level, Chiccarelli also gives Nashville high marks. "Along with the great studios and musicians, the techs are there, the cartage companies are there—all the support services. So that makes it a really easy place to make music."

If he's crazy about Nashville in general,

Chiccarelli is especially crazy about Blackbird. McBride recently installed an API board in D, putting the room even more in Chiccarelli's sweet spot. There's also an API in Studio A, where he mixed the Stripes.

"Any opportunity to bring a project there, I'm into it," he enthuses. "The rooms sound great, they have multiples of every piece of gear known to mankind and everybody who works there seems excited to be there. It's like the spirit the L.A. studios had in the '80s. So it's really a healthy atmosphere. John will walk into the studio one day with a 1937 Martin guitar, and say, 'I hear you guys needed an acoustic guitar, here's this one.'"

Like pretty much every musician and studio pro who's worked at Blackbird, Chiccarelli had his mind blown by the massive amount of gear collected by McBride, a self-described Beatles fanatic. "John's a total gear nut," Chiccarelli marvels. "He just bought up a whole bunch of sets of old Gretsch round-hadge drum kits. Anything you need, he has it there. It got to be a running joke with me and my assistants during the Raconteurs project: I'd ask for the most obscure piece of gear I could think of, and every time they'd have a couple of them. He may have the largest collection of tube microphones in the world—like 45 U47s, just crazy stuff. He just opens up his lockers, and says, 'Go for it.' There's a spirit in that whole complex. There's something about it that makes you want to do your best."

Meanwhile, engineer/mixer Mike Pier-sante is finalizing the mixes on album projects with B.B. King and John Mellencamp at T Bone Burnett's Electro Magnetic facility in L.A., his usual haunt. Then it'll be off to Nashville to hook up with Burnett for a week of tracking with Elvis Costello. They'll

—CONTINUED ON PAGE 120

## NASHVILLE SKYLINE

by Peter Cooper

The trap door is cool, even if Elvis Presley never got to go through it.

"Oh, yeah, I had a set of stairs with an alarm, security and all that so he could park underground and come up through a thing in the floor," says David Briggs, the legendary keyboard player who has been integral in the rise of two of Nashville's best-loved studios, Quadrafonic and House of David. Quad is where Neil Young cut "Heart of Gold," where Dobie Gray cut "Drift Away" and where Dan Fogelberg, Linda Ronstadt and others recorded hit records. The trap door, though, is at House of David, a favored studio for the Americana set and a place where Presley could have come and gone without ever being harassed. Alas.

"It was going to be a place he could come and get away from the fans and just record," says Briggs, who played keyboards for Presley. "I worked on this for him in '76, and he died in '77. He never got to use it, although I did work on some of his music here after he died."

And so the trap door sits, a point of interest if not an entrance. A piano once beloved by Liberace is located just 10 feet away, and sounds from that piano are processed through an API that used to be the board of choice for producer Val Garay (Kim Carnes, Motels, etc.) at Los Angeles' Record One. Richard McLaurin took over as proprietor two years ago, and he frequently mans the API as engineer or producer.

"I started here in 2002, and I've redone the board," McLaurin says. "It took me a year to do the whole thing, but it's modular, and it's not like you have to completely stop everything when you're working on it. I did it one module at the time, and Billy Joe Shaver and Allison Moorer made records here while that was going on."

Neither House of David nor Quad caters specifically to a contemporary country music crowd. Though Taylor Swift, Toby Keith and others have recently recorded hit records at Quad, studio manager Mark Greenwood estimates that only about 40 percent of Quad's business is countrified. This is in keeping with the way things have

## NEW YORK METRO

by David Weiss

been since late 1969, when Briggs and fellow musician Norbert Putnam opened Quad at 1802 Grand Ave.

"When we first started, we had some country people," Briggs remembers. "But we found our rate of collection was maybe 60 percent at best. We found we did better if we worked with pop acts who had a deal with a major label: people like Joan Baez, and Linda Ronstadt. The first big country act we had was Eddie Rabbit, who recorded 'Two Dollars in the Jukebox' at Quad."

A regular crew of funkier-than-Nashville-usual players (Briggs was from Alabama and had plenty of experience making soul records) helped Quad to produce some extraordinary records, and Briggs figures Gray's "Drift Away" to be emblematic of the quintessential Quad sound. But the biggest night in the building's life may have come when Neil Young was in town taping the *Johnny Cash Show* for ABC and decided to get a recording session together. He invited Ronstadt and James Taylor, who were also on the show, to meet him at Quad, and "Heart of Gold" was the result. Taylor played banjo, Ronstadt sang harmonies; the session is an example of Quad at its best. The Quad Eight soundboard captured a sound that was rooted in country sensibili-

—CONTINUED ON PAGE 120

In New York City, a lot of people in the business of building music need something called a "music building." There are a few such full-on complexes—comprising spaces for rehearsing and/or recording music—in each borough, and several others that also host photographers, designers and anyone else legitimate and artistic. So much music production and development happen in these facilities.

One such music building in Brooklyn, established in an ex-warehouse in the hip industrial neighborhood of Williamsburg, is the Northside Music Complex. Founder/musician Scott Rosenthal explains why music buildings are so important in New York City, but are much less essential somewhere like Nebraska, for example: "The thing that's unique about New York City is the population density and the economic nightmare of trying to be an artist or musician here," he says. "You can't get a house because it's too expensive and you can't practice in your apartment. However, the entertainment industry is here, there are amazing clubs, amazing bands, and so it's incredibly desirable to be in a band in New York City. A music building like this provides a way around those constraints, and the fact that so much manufacturing has fled the city also means there's space for a place like this.

"It's a great way to work. If you're in Topeka, Kansas, practicing in a basement or garage, you're not going to run into another band when you're going to the bathroom or having a smoke break," Rosenthal continues. "And the advantage of today's recording setups is that if you have a portable hard drive, you can record drums in one person's room, capture the bass and keyboards in another room, and then mix in still another."

The approximately 20



Christopher Walsh (left) and Travis McGee in the *Pleasure Machine*

studios in Northside therefore serve as a viable and relatively affordable alternative for bands who have outgrown their own apartments and/or hourly rehearsal spaces, but haven't yet moved up to the rarified territory where they can have their own private space with a quality recording setup or even a full-blown studio. Furthermore, each individual space is often shared by multiple artists coming in on different nights or perhaps collaborating, meaning that a well-run building can provide a valuable artistic haven to scores of music practitioners ranging from rank amateur to full-time pro.

One such room is *The Pleasure Machine*, a rehearsal/practice space behind one of the anonymous doors of Northside. The 13x8 facility is shared by two bands, McLeod Ganj and Travis McGee & The Revelers, with both bands in turn sharing bandmembers. *The Pleasure Machine* has been their home sweet home since December 2006, and the groups have worked together to make it a place capable of focused practicing and 100-percent functional indie-rock tracking.

"When we moved into this room, it was incredibly reverberant," says Christopher Walsh, a guitarist, engineer and co-founder of McLeod Ganj. "There was a long shelf in the back and a concrete floor. So the first thing we did was put down carpeting."

—CONTINUED ON PAGE 120



Original Quad owners David Briggs (left) and Norbert Putnam flank House of David proprietor Richard McLaurin. They are seated at the beige API board that once was a centerpiece of *Record One* in L.A.

# DENNIS SCOTT PRODUCTIONS

## COMPOSER/PRODUCER AT HOME WITH MUSIC FOR ALL AGES

By Barbara Schultz

From Noel Coward to Mr. Rogers—that's the trajectory Dennis Scott's career has taken, and he couldn't be happier.

Scott began his career as a child actor, performing in a Coward play on Broadway at age 7. As he grew, his interests turned to music and songwriting. In the early '80s, Scott composed a novelty tune called "Captain Kirk's Disco Trek," and that recording caught the ear of the producers of *Sesame Street*.

"They liked my writing, and I ended up writing and producing my first album for them," Scott says. "The album was called *Sesame Country* and it was a pretty ambitious project when you consider that until that point most of my experience was in producing my own demos for songwriting purposes. But I found myself recording in Nashville, in the driver's seat of a whole project that featured celebrity guest artists like Crystal Gayle and Glen Campbell, Loretta Lynn and Tanya Tucker, not to mention Jim Henson and all the Muppet crew."

Scott says the process of making the *Sesame Country* project, which earned him his first Grammy in '81, is what gave him the recording bug; not long after completing the album, he bought his first 4-track recorder. It also inspired his move from New York to Nashville, though he didn't make Music City his permanent home until '89.

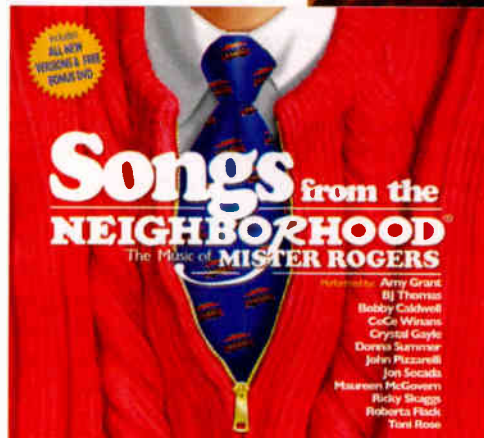
"When I first moved to Nashville, I was working in an office on Music Row and shared my gear with another studio," Scott recalls. "I eventually moved to my own place in smaller quarters, working in an upstairs bedroom with a landing. Now my family and I live in a much more spacious location, which overlooks beautiful trees, and the studio has lots of elbow room. We have a huge control room and four different isolation areas, and the great thing is it's an above-ground basement so you can look outside and see daylight and nature."

Scott's current setup includes Pro Tools Version 7.4, a Mackie Digital 8 Bus console and Genelec 1031A monitors. He says he and his longtime engineer, Gary Dales, also make extensive use of a couple of pieces of analog outboard (Tube-Tech LCA 2B compressor, Focusrite ISA 215 preamp) to warm up their sound.

Another project rooted in children's music, *Songs From the Neighborhood: The Music of Mr. Rogers*, featured numerous high-profile performers and earned Scott another Grammy Award. Scott explains how that project came to be: "I happened to be watching TV and came across Mr. Rogers, and he was singing one of his songs that I didn't recognize, and it made me wonder if he was in fact the composer of the songs on his show. It turns out he was quite a prolific composer, and he wrote almost 250 songs for his show. He was also a great jazz enthusiast and had various degrees in music. I began to wonder if anyone had ever covered his songs, and it turned out that was not the case. I saw it as an opportunity to be the first



Dennis Scott and his trusty assistant Max in Scott's home studio.



to take Mr. Rogers' music and give it all-new arrangements.

"I called upon some great musicians to help with the string and horn arrangements, but I can take responsibility for the rhythm arrangements," Scott continues, "with the exception of Ricky Skaggs, who put his own personal brand on 'Let's Think of Something to Do While We're Waiting.'"

Skaggs also preferred to record in his own Skaggs Family Productions studio, but most of the vocalists and musicians tracked in Scott's facility. The all-star cast includes Amy Grant, Donna Summer, Roberta Flack, John Secada, BJ Thomas and more.

More recently, Scott produced a 27-song collection of instructional songs to be used in Sunday-School classes by the United Methodist Church. At press time, he had just sent those files off to Doug Wayne at Mastermind for mastering. Now, Scott is getting ready to begin composing and producing original songs and underscoring for Daytime Emmy-nominated children's program called *BJ's Teddybear Club*. Other programs that have featured Scott's compositions and productions include *Elmopalooza*, *Guiding Light*, *Clifford*, *Sesame Street* and *Who's the Boss*.

"Although I feel fortunate to have carved out a niche for myself in the area of kids and family entertainment," Scott says, "my production and writing work have also found success in adult arenas. I've done over 75 instrumental and spoken recordings, and my own songs have been performed by a diverse group of artists—Faith Hill, Ray Charles, Sugarland, CeCe Winans, Alison Krauss, Ben Vereen and others.

"Most important, I treat every project with the same production values one would expect from any good commercial recording. Kids today are musically astute and know the difference between a quality product and one that 'talks down' to them. They deserve the best, as do the parents who will undoubtedly be hearing the songs played over and over." ■



## BEHIND THE GLASS

### HISTORY SESSION KEB' MO' IN DOCUMENTARY



*Keb' Mo' in Village Studio B*

Keb' Mo' spent time at The Village (L.A.), where he spent a day filming and tracking for *Recording: The History of Recorded Music*, an eight-part documentary focusing on music, technology and American culture. Series co-producer Brad Bernstein oversaw the session in Studio B.

### WILD OATES GATHERING AT GREAT DIVIDE



*From left: Bil Rieger, John Oates, John Popper, Jamie Rosenberg and DJ Logic*

John Oates visited Great Divide Studios (Aspen, Colo.) to track vocals and overdubs for a new album. Basic tracks were recorded in Nashville with engineer Bil VornDick, and guest performers include John Popper, Béla Fleck, Sam Bush, Steve Cropper, Jerry Douglas and more.

### SOUTHEAST

Sugarland, aka Jennifer Nettles and Christian Bush, recorded their third album for Mercury Nashville at Southern Tracks (Atlanta). Byron Gallimore produced, and Julian King engineered. Erik Lutkins, David Bryant and Tom Tapley assisted. At Saint Claire Recording (Lexington, KY), producer Tony Visconti and engineer Mario McNulty finished mixing an album by Alejandro Escovedo. Tim Price assisted. Engineer Neil Dorfsman was also at Saint Claire, mixing an album by Spanish artist Manolo Garcia with assistant Zach McNeese. Garcia's album was tracked in Spain by Jordi Sole.

### NORTHEAST

At Electric Lady (NYC), Erykah Badu mixed tracks for her album *New Amerykah, Pt. 1* with engineers Tom Soares and Mike Chav. The Black Crowes were in tracking with engineer Emery Dobyns...Avatar Studios (NYC) hosted music recording sessions for the soundtrack to *Cadillac Records*, a movie based on the story of the famed Chess Records label. Producer Steve Jordan worked with engineer Niko Bolas and assistant Brian Montgomery in Studio A. Also at Avatar, Weezer mixed with engineer Rich Costey and assistant Justin Gerrish in Studio G, and Liza Minnelli recorded in Studio A with producer Phil Ramone, engineer Lawrence Manchester and assistant Colin Suzuki...Engineer Emily Lazar and assistant Joe LaPorta mastered The Raveonettes' fourth album at The Lodge (NYC)...Prodigy of Mobb Deep was at Sola Studios (NYC), mixing an upcoming release with producer The Alchemist, engineer Steve Sola and assistant Eduardo "Creon" Nororis.

### NORTHWEST

Producer/engineer Mike Kapitan tracked with blues singer Karen Dumont at 2 Street Recording Studio (Eureka, CA). He also recorded honky-tonk band Rooster McClintock at his own Groove Time project room (Arcata, CA). He plans to mix both projects at Groove Time... At Nettlesham Audio (Vancouver, WA), Kevin Nettlesham tracked drums and bass for Gino Vanelli's upcoming release. He also mastered projects for the Piano Throwers, Muddy River Nightmare Band, the Low Arts, Keeter Stuart and others.

### SOUTHERN CALIFORNIA

Sunset Sound (Hollywood) has numerous sessions to report, including The Zutons with producer George Drakoulis, engineer Brandon Mason and



*Ronnie Honeycutt in his new Sound Dragon Studio*

### SOUND DRAGON STUDIO OPENS

Ronnie Honeycutt, who started his first studio in 1997 (the 24-track Woodcutt Recording, in Madison, TN) has opened a new 48-track room in the hills of Goodlettsville, TN. Sound Dragon Recording will serve Honeycutt's loyal clientele (including Rufus Fontain, Jimmy Stiff, Dixie Devils and others). "The studio sits on a hillside in the Dry Creek Valley of Goodlettsville—a private setting with a great vibe. We have a brand-new building, a new name and a host of new gear, including the Tascam DM4800 and X48," Honeycutt says.

assistant Bill Mims; producer/artist Mark Ronson with engineer Clif Norrell and assistant Mims; Be Your Own Pet with producer Steve McDonald, engineer Joe Chiccarelli and assistant Graham Hope; and Smashing Pumpkins with Billy Corgan producing, engineer Kerry Brown and assistant Morgan Stratton...In addition to the Keb' Mo' session at left, The Village (L.A.) has hosted recent sessions with soul great Solomon Burke, producer Steve Jordan, engineer Don Smith and assistant Ghian Wright; Burt Bacharach with engineer Woody Woodruff and assistant Chris Owens; and Adam Sandler, tracking music for a Jewish songbook with producer Brooks Arthur, engineer Eric Liljestrang and assistant Noel Zancanella...Rob Chiccarelli mixed a Cheetah Girls recording of "Someday My Prince Will Come" at Final Mix Recording (L.A.). Producers of the track are Matthew Gerrard and Pete Amato... Hans DeKline mastered releases for Miranda Lee Richards, The Shore and Motel at Sound Bites Dog (L.A.)...At Threshold Sound + Vision (Santa Monica), where Michael "Micky" Schuman is the new studio manager, Tim Fagan has been producing, tracking and mixing a new album with engineer Peter A. Barker and assistant Scott Coslett. Barker also mixed a ZZ Top concert for 5.1 surround. ■

Send "Track Sheet" news to [bschultz@mixonline.com](mailto:bschultz@mixonline.com).

be working in a room that is practically their home away from home: Studio A, the big tracking room at Garth Fundis' righteously old-school Sound Emporium. Piersante has logged countless hours there, recording the soundtracks to *O Brother, Where Art Thou?*, *Cold Mountain* and *Walk the Line*, along with album projects with bluegrass legend Ralph Stanley and the uncompromising, utterly beguiling Robert Plant & Alison Krauss collaboration, *Raising Sand*.

"The Sound Emporium staff is great, and everything we've done there has had great results, so it's hard to not go back to what you know," says Piersante. "They've put in a Neve VR since the last time I was there, but we very rarely track through the board anyway, no matter what room we're in. I don't know whether it's superstition or what, but we love the vintage Neve stuff so we'll often rent modules and use those as our preamps and EQs, and monitor back through the studio's console. API is another exception—we don't have any problem tracking through one of those. What we like is a really simple signal path with minimal stuff in the way, which is a good way to capture everything."

As with the previous Nashville projects, Burnett and Piersante will choose the pieces from their own collections of gear and instruments "to complement what the studio has," Piersante says. "When we track, an important part of it is to use some of our equipment—T Bone's guitars and amps, some of my old mics—that you're not gonna find in a typical studio." But this precious cargo no longer travels without a chaperone. That practice ended after a series of mishaps, including the gouging of a beautiful old amp by a forklift. Instead, Burnett's trusted guitar tech (and much more), Paul Ackling, oversees the loading into a well-cushioned truck and drives the gear himself between the two cities.

They always rent a few pieces of gear locally as well, including an all-important Studer 24-track. "People ask why we still cut to tape, but no one's complained about the way our stuff sounds, and it seems like it's always been worth it," Piersante explains. "At the same time, it's hard to deny the flexibility of digital, so we'll normally take our tapes and carefully transfer them, with really good converters and clocks to a digital audio workstation and work from there on edits. Sometimes we'll even do vocals in the box. And then we'll mix out of the box, one-to-one, and do all of our treatment on an analog console, mixing back to quarter-inch tape. We go 30 ips on an Ampex ATR 102. So we start out on tape and end on tape, and that's what we deliver to the mastering house."

When I ask Piersante if he realized what a special record *Raising Sand* was while he was working on it, he replies, "I gotta tell you with the ultimate amount of sincerity that nearly every project I do with T Bone has that feeling to it. A lot of it is because of the type of artist he brings in. It's a privilege to work with B.B. King, Ralph Stanley, John Mellencamp, Alison and Robert, obviously. So every session has that feeling of history being made. I'm really proud to be here and be part of it. But as far as commercial success goes, I don't have a good handle on that."

Informed that *Raising Sand* has been certified Platinum, Piersante says, "Wow—no kiddin'. Someone should be sending me a plaque then, I guess." ■

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## NASHVILLE SKYLINE FROM PAGE 117

ties, but embraced rock and pop in a way that made sense in the mass market.

Then Briggs and Putnam sold Quad on something like a lark in the late 1970s.

"Some guy came in, and said, 'How much? Name a price,'" Briggs recalls. "I jokingly said, 'I'll take \$1 million.' The guy said, 'I'll be back tomorrow.' He came back the next day, and said, 'I'll take it.' Norbert and I still talk about that. I think it was a mistake to sell it. But we were fooling around, and the guy said, 'Fine.'"

By then, Briggs had already purchased House of David, a lovely old place located at 1205 16th Ave. S. He'd conceived of the building as a recording refuge for Presley, but the King's death resulted in a significant re-evaluation. A buyout agreement from the Quad deal dictated that he could not open it officially until 1982, but by then B.B. King and others had graced the studio. The first act to "officially" record there was Joe Cocker, and recording was done on the original Quad Eight board that had been at Quadrafonic. Young recorded portions of "Hawks and Doves" and "Old Ways" there, and Clint Black cut his breakthrough, *Killin' Time*, prior to the acquisition of Garay's beige 1972 API 2832 board in 1992. House of David has also been host to plenty of commercial jingles, including the highly successful "Miller's Made the American Way" song.

McLaurin—a deft musician, engineer and producer who signed on as manager in the spring of 2002—has helped to raise awareness of House of David in the Americana and alt-country communities. In 2006, McLaurin became House of David's proprietor ("David did his best to talk me out of it," he says) and word has spread. The piano and the

microphone collection are exquisite, the surroundings are comfortable and historic, and the API board works well with Pro Tools or with 2-inch tape. Along with the usual control room full of outboard gear, there's a glorious old-school plate reverb that requires a walk downstairs to adjust.

Quad has seen several regime changes since Briggs and Putnam left, but it remains an historic and viable studio. Studio A has an 80-input SSL 9000, the Neve Room has a Neve 8068 with Flying Faders automation, and there are two smaller studios running Pro Tools HD systems. The walls are lined with Gold records from photos of musical luminaries. Even the upstairs bathroom sports a stained-glass window donated by Jimmy Buffett. House of David's bathroom has no such Parrothead appeal, but there's plenty of stained glass made by the same guy who—get this—produced Percy Sledge's "When a Man Loves a Woman" and became Bill Gates' "right-hand man," according to Briggs.

Both studios have been able to trade on history and soul, and to thrive even when many Music Row rooms have fallen victim to rough country music times. On a recent visit, Quad was humming with bands in various studios, and House of David's 2008 has included sessions with Freedy Johnston and Sixpence None the Richer.

"It seems like people who have known about this place are starting to matrix with new people who are falling in love with it," McLaurin says. "I'm seeing a lot of new faces." ■

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## NEW YORK METRO FROM PAGE 117

As the two bands began to iron out the kinks, they realized that additional sound treatment would definitely be needed. Armed with acoustical treatments and a custom layout from Auralex Acoustics, Walsh, McGee and their bandmates brought the sonics under control, helping enormously with what went on in the room, and to a certain extent with the common music building complication laying outside their room's walls. "When a band is rehearsing in a room nearby, you notice," Walsh says. "I do record outside clients in here, and there are times when I have to say, 'I'm sorry, we can't right now because there's incredible noise and vibration.'"

The challenge of the occasional (but often regularly scheduled) noisy neighbor aside, The Pleasure Machine offers the bands multiple benefits leading to increased creativity. "Having a dedicated space isn't just about

having a place to keep your equipment," Travis McGee adds. "[With] 24/7 access and the fact that you're not watching the clock just enhances the whole progress of the band. Even if you only practice one day a week, just to have the time to yourself to get through stuff in the set reduces the pressure. You can relax, which is what you need to do to be in a tight and creative band." JBL speakers, a Soundcraft mixer and AKG dynamic mics round out the rehearsal gear.

Walsh has no problem getting big sounds when tracking in this little space. He has established a logical process that works around many of the potential limitations. "The best results come when I put up a kick, snare, two overhead mics and one room mic on the kit," he explains. "When we're recording the drums, everything else is direct. My guitar goes through a [Line 6] PodXT, the bass player is direct and the vocalist can go over to the opposite corner and sing with a handheld. Everyone is going through a Behringer headphone system. There's no bleed, so we get the drums down with a great deal of clarity."

Recording into Digidesign Pro Tools Version 7.4, Walsh makes heavy use of an SSL Alpha Channel and a PreSonus DigiMax FS

8-channel mic pre to get the best possible signal for guitar, vocal and other requisite overdubs. "The rehearsal complex is now the recording complex," Walsh says. "Most of the rooms in music buildings like Northside have a recording rig that run the gamut from a console and 2-inch machine to DAW to 4-track. People have put a lot of attention into treating their rooms so they can record. The gear is simple enough that anybody can operate it, and the size of the equipment has shrunk to such small proportions. With cheap digital gear, I can do stuff that's respectable, and then I dedicate my budget to the mixing and mastering stages." Walsh, McGee and co. like to keep in the Brooklyn house from there, relying primarily on Cowboy Technical Services' Tim Hatfield to mix, and Salt Mastering's Paul Gold to, well, *you know*.

Down the hall, Jay Braun works in Melody Lanes, an even more ambitious room that sports a Studer 16-track/2-inch machine, Neotek console, high ceilings and even a second floor with a pool table. "Before Northside, I was recording in what was essentially a 10-foot-wide bunker with 16-foot ceilings," says Braun. "It was like working inside a giant cinderblock toaster. The drums sounded

cool, but I knew I had to find something more workable; I knew that if I could work out of Northside, I wouldn't have to worry about disturbing the neighbors, and the wood rafters and high ceilings didn't hurt, either.

"The control room and live room are sort of separate from the rest of the building, which makes the whole thing feasible," Braun continues. "Plus, I have a third 'buffer room' in between my space and other rooms, which is floated and serves as an editing suite, an amp room, a tight, dry drum room, and a home for all of our quirky gear like the Optigan, the Theremin and many wayward synthesizers."

If it weren't for music buildings, a great deal of the leading-edge music for which New York City is known would be impossible: The space and creative freedom they provide are essential for the emerging artists. "The logistics of New York City are tough to negotiate as it is, so it's really convenient to have everything in one building," Rosenthal says. "It was nice to start a building with 20 close friends rather than strangers. It's really local—family style, so to speak." ■

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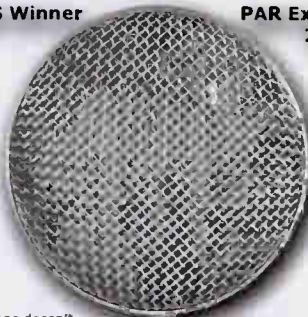
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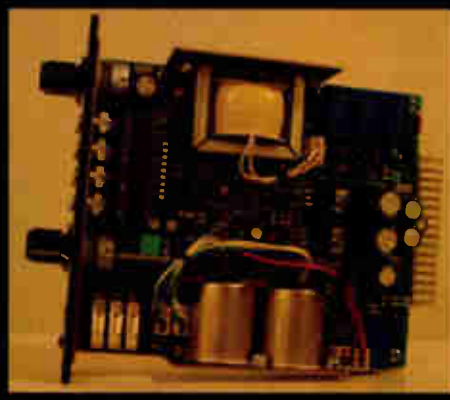
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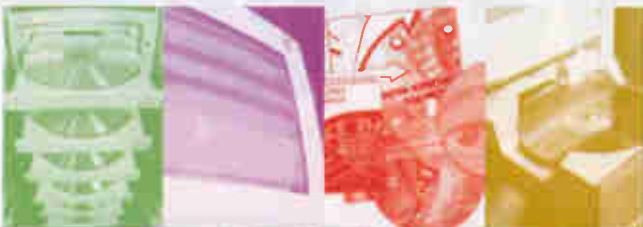
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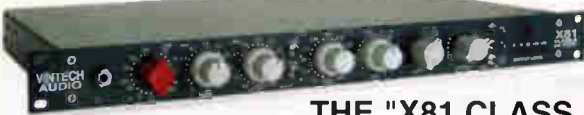
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## Waves Platinum

Waves and DP together on Intel

Waves 5.9.7 is now shipping and brings across-the-board Waves processing to Digital Performer on the Mac Pro tower and today's other latest Intel Macs. Waves plug-ins are absolutely essential for any DP-based MOTU studio.

## Novation Nocturn Compact intelligent controller

Featuring Novation's exclusive Automap Universal 2.0 software, Nocturn provides automatic, instant and intelligent control of all automatable plug-ins within Digital Performer, including "speed dial" — a unique touch-sensitive rotary encoder that instantly takes control of whatever your mouse is focused on.



## Focusrite Liquid Mix Get \$150 back on legendary EQ/compression

Liquid Mix gives you tens of thousands of dollars worth of vintage and modern classic compressors and EQs, faithfully reproduced in your DP mix. Purchase before April 30th and get a \$150 rebate. Call your Sweetwater Sales Engineer right away for details.

## BIAS Master Perfection Suite Mastering at its finest

Six stunning new plug-ins for Digital Performer: unparalleled spectral matching, linear-phase multi-band dynamics processing, super natural pitch correction/transposition, comprehensive analysis, 10-band paragrammatic mastering EQ, and high-quality gating — all at a breakthrough price.



## NI KOMplete 5 and KORE 2 Legendary virtual instruments with hands-on control

For Digital Performer users who want it all: 11 legendary instruments including KONTAKT 3 and the award-winning MASSIVE, combined with instant hands-on control. Choose from 7,500 presets in seconds and instantly tweak with real knobs.

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# The native MOTU studio — more power to you

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## Mackie HR824mk2

### Active studio reference monitors

These high-resolution monitors sound as smooth as they look. The new Zero Edge Baffle™ minimizes diffraction for a crystal clear image and controls sound waves for wide, even dispersion. Acoustic Space, LF roll-off and HF controls let you tailor the sound to suit your MOTU studio space — and your taste.

## Mackie Control Universal Pro

### Automated control surface

The ultimate hands-on control for Digital Performer. Nine motorized, touch-sensitive Penny + Giles faders, eight V-Pots and more than 50 master buttons let you tweak to your heart's content. Apply the included custom overlay for Digital Performer for dedicated labeling of DP-specific functions.

## Presonus Central Station

### Control room monitoring with remote

The missing link between your MOTU recording interface, studio monitors, input sources and the artist. Monitor from among 5 sets of stereo inputs (3 analog and 2 digital) and manage your sessions with hands-on control room features like talkback and listenback.



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# REMIX [hotel]

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# TONY BROWN'S NASHVILLE

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*The Platinum producer has strong opinions about country music's place in his city and what makes Nashville great. Here are a few of Brown's off-the-cuff observations after living, playing and producing in Nashville for more than 25 years.*

## MORE THAN COUNTRY

It seems like there is a mandate in Nashville to prove to the world that we're more than country music. What does Los Angeles need to prove? That they're more than pop music? It's silly to spend time worrying about that.

But a lot of people do have a chip on their shoulder. I've heard this comment so much: "Everybody thinks we're sitting on hay bales." But that's bullshit. I went over to England about six months ago to meet with Van Morrison, and he totally looks up to the country music legacy, even though country drew on some folk music from Ireland.

Kenny Chesney played Madison Square Garden several months ago, and I talked to somebody from Nashville who was there, who said, "I can't believe the last song he played was 'She Thinks My Tractor's Sexy.'" They said, "That sent the wrong message." But the crowd probably loved it. I said, "That's great that he did that because it's a big hit and it's fun to play." Hip-hop artists use bad grammar and urban street talk, and they're not ashamed of it. Why should we be ashamed?

## THE CENTER OF COUNTRY

The real reason we are a country music city is that this is where all the major labels have their country music divisions—Universal, Warner Bros., EMI, Sony BMG, Capitol—and they make big money for the major labels.

There is a country tradition here, and it doesn't exist because of the Grand Ole Opry like some people think, but the Opry does help that tradition survive. The people who are in charge of the Opry, Steve Buchanan and Pete Fisher, took over the reins about 10 years ago, and they started

including younger artists. Think of it: Carrie Underwood was just inducted into the Grand Ole Opry, and Mel Tillis just got inducted a month ago! There are a lot of young artists being inducted quicker because they're trying to reach that young demographic. I think that's smart because there will be people who prefer the old cats, the traditionalists, but their kids probably like to hear Carrie Underwood. They're making sure the Opry doesn't become a relic, even though it's kind of corny and sweet to go and watch some of those old cats who otherwise wouldn't have anywhere to play in front of 4,000 people. This way, the Opry still honors the legacy of the music, but it's relevant to today's country music industry.

When you think about it, the Opry is so important because it's one of the last remaining live radio shows. And we all depend on radio to get the music out there, especially now that video channels don't play music videos anymore.

## SPEAKING OF RADIO

It used to be that when a country song got played on a CHR [Contemporary Hit Radio] station, it was considered a crossover, but around the time Garth Brooks came along, country music just became mainstream. We went from maybe a half-a-billion-dollar industry here in Nashville to a multibillion-dollar industry. But you have to remember that Soundscan changed things, too. With Soundscan measuring units sold, people like Garth Brooks and Vince Gill and Reba McEntire suddenly appeared on the pop and album charts. Before Soundscan, pop was being treated like a genre, but pop isn't a genre; it's an abbreviation for popular music.

But now the whole game is different because of satellite radio, which is so great. Suddenly, you've got classic country, young country, prime country, Americana, Roadhouse. Not every listener understands what the radio people mean with these names, but you can always find something worth listening to. I was at Sheryl Crow's



house for a party, and she had Willie's Place on XM playing—all this really old stuff! But I bet you could go into any music executive's office in town and they're probably playing Feist or Kanye West because they want to be cool and "more than country."

## REAL LIVE RECORDING

One of the greatest things about recording in Nashville—its biggest draw, probably—is that it's one of the last remaining places where live music happens. On the Reba McEntire *Duets* record, for example, we did a song with Justin Timberlake. He told us he wanted a dobro player, an acoustic player, a fiddle player and an upright bass. We were in the control room when Reba was doing her part, and Justin said, "God, I really miss working with live musicians. It's so fun!"

A lot of pop music is done in pre-production: Some guy lays down a loop and it sounds cool. Here, the musicians do not even have sheet music; they have chord charts—the number system—that are great for the rhythm guitar player, but the people who play solos just create that spontaneously. I would say 90 percent of the music that happens here—and I'm talking about big hits like Keith Urban, Rascal Flatts, George Strait, Carrie Underwood—happens on the floor. ■

*Tony Brown's copious production credits include George Strait, Reba McEntire, Wynonna, Steve Earle and more.*

# M101

## The Revolution Continues.

In 2000, the model 101 helped fuel a revolution. When people took professional recording into their own hands, it was there with all of the quality and performance of a high-end mic preamplifier, but with a price that made it available to the masses. 8 years later, and the cause moves forward with the newly redesigned m101.

With an impressive list of new features, the m101 is ready to give any mic preamplifier a run for its money. Consider the new audio signal path with 0.5% precision metal film resistors, 12 position gold plated rotary gain switch, a built-in universal AC input module, or our exclusive RIBBON mic mode - and the picture becomes clear: This is now a fully professional, state of the art precision mic preamp that roundly outperforms anything in its class. All this at the same affordable price of the original model 101.

From podcast to concert hall, the m101 brings the build quality, refinement and performance to revolutionize any recording facility.



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- Wide 10-75dB gain range
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- Three output connectors: XLR balanced, TRS balanced and TS unbalanced
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Introducing the

# 828mk3

## FireWire audio interface with on-board effects and mixing

- Comprehensive audio I/O — 28 inputs and 30 outputs on balanced TRS analog, ADAT, TOSLink and S/PDIF, with XLR main outs.
- 192 kHz recording — Supports 44.1, 48, 88.2, 96, 176.4 and 192 kHz sample rates.
- Digital mixer with effects — 28 input by 16 bus mixer with on-board DSP effects, including reverb with sends, plus EQ and compression on every input and output.
- CueMix FX software — Advanced graphic control for on-board mixing and effects with tabbed design and peak/RMS metering.
- Vintage compression — Automatic Gain Control faithfully modeled after the legendary Teletronix® LA-2A® leveling amplifier.
- British console EQ — 7-band parametric EQ available on every input/output modeled after legendary British analog consoles.
- 60-second reverb — Classic reverb with five room types and length up to 60 seconds.
- Two mic/guitar inputs with pre-amps — True hi-Z 1/4" guitar input or low-Z XLR mic input with 48V power, pad & precision digital trim.
- Clip protection — Hardware limiter for mic & guitar inputs prevents digital clipping from overloaded signals up to +12 dB over zero.
- Two banks of optical digital I/O — 16 ch of ADAT lightpipe, 8 ch of SMUX (96 kHz) or stereo TOSLink. Mix and match formats.
- Stand-alone operation — Adjust mixing and effects quickly with intuitive LCD menus.
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- Includes drivers for Mac and Windows — Works with all of your favorite software.

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Peak / RMS metering

Reverb



Compressor/Leveler



7-band para EQ



Clip protection



EQ and dynamics on every input and output channel



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