

'Revolution' Sound * Soundgarden * Paramore * The Flaming Lips, 'The Terror'

april 2013 \ \ mixonline.com \ \ \$6.99

MIX

MUSIC PRODUCTION • LIVE SOUND • SOUND FOR PICTURE

REVIEWED

THREE BROADCAST PLUG-INS:

TC ELECTRONIC LMG

WAVES WLM

NUGEN ISL

SOUND DEVICES 664 FIELD MIXER

WAVES NON-LINEAR SUMMER

THE BIG PICTURE

Dallas Audio Post Opens Dolby Stage

**BAY AREA'S NEW
SFJAZZ CENTER**

**MIX REGIONAL
★ SOUTHWEST U.S. ★**

#BXKXJB *****AUTO**3-DIGIT 802
#0869808 6# MIXB 0869808 FEB 2014
OWNER
SCOTT BRICKSTAR
BRICKSTAR STUDIOS
4545 OSCEOLA ST
DENVER, CO 80212-2543
HB01
P0001



Eris™. Affordable studio monitors that don't treat you like a kid.



Here's a dirty little secret: Most monitors in Eris' price range are designed so that they sound impressive in the store — lots of bonky bass and tizzy treble — but they aren't accurate when you're trying to do a serious mix in your studio.

The new Eris™ E5 and E8 are true pro monitors with the precise back-panel acoustic-tuning tools you need to tailor their sound to your room environment and musical genre*. You'll end up with mixes

that sound good everywhere (including iTunes and CDs), not just in your control room.

Eris monitors pack long-throw Kevlar® K100 low frequency transducers and low-mass, silk dome high frequency transducers with separate butt-kicking Class A/B amps for each.

Above all, Eris are musical, powerful, and excruciatingly accurate. Get the whole story of Eris on our site. Or visit your PreSonus dealer for an ear-full of Eris.



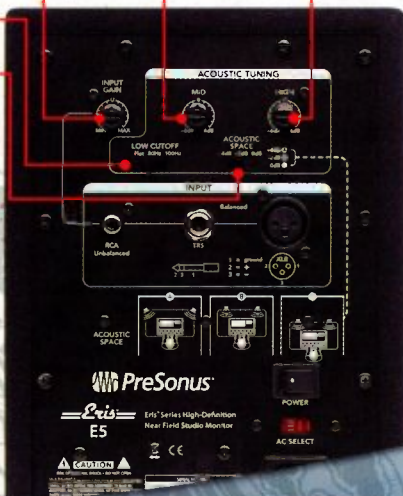
Eris E8 • 8" LF, 1.25" HF 140 watts



Eris E5 • 5.25" LF, 1.0" HF 80 watts

- LOW CUTOFF** lets you match Eris to a subwoofer without screwing up the bass.
- INPUT GAIN** optimizes signal to noise ratio
- MID frequency** continuously variable $\pm 6\text{dB}$
- HIGH frequency** continuously variable $\pm 6\text{dB}$

3-position **ACOUSTIC SPACE** switch lets you control Eris' bass output depending on whether you're placing them in corners, or on each side of a video monitor but close to the back wall, or farther out towards the middle of your control room.



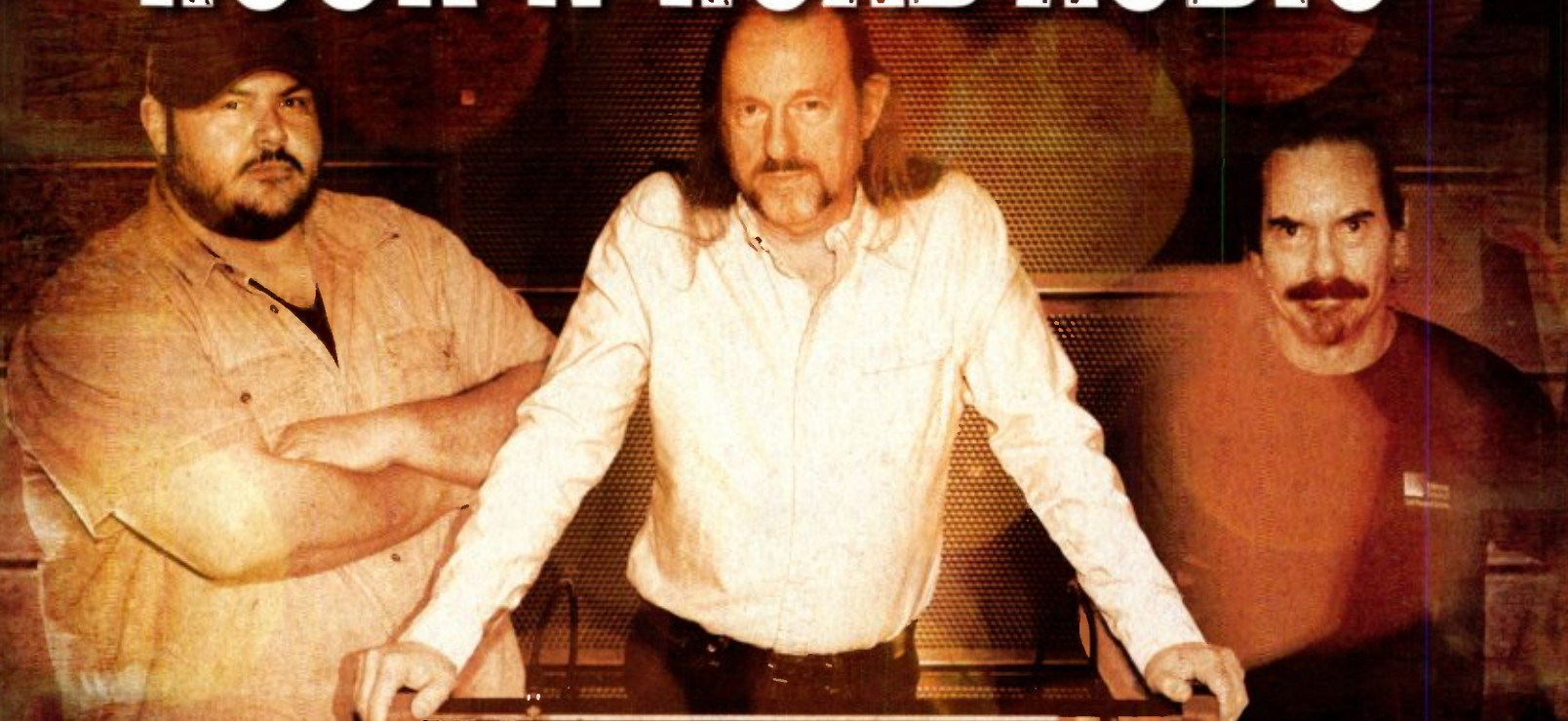
*But if you yearn for a lot of thudding bass and ear-melting highs like our competition puts out, you can still do that with the same controls. Just turn up the gain. ©2013 PreSonus Audio Electronics, Inc. All Rights Reserved. Eris is a trademark of PreSonus Audio Electronics, Inc.



Baton Rouge • USA • www.presonus.com

DIGICO PRESENTS

Hometown Spotlight... ROCK-N-ROAD AUDIO



SD9 SUPERCHARGED

The new SD9 Supercharged not only features significant expansion in Channel count, 48 Flexi Channels (equivalent to 96 channels or DSP) it also gets extra Dynamic EQs, Multiband Compressors, 12 x 8 Matrix, DiGiTuBes, valve emulation, Reorder of Busses and Multichannel inputs. Taking care of business in real applications the world over, it delivers. Again and again.

STOP PRESS - New Rack-Pack! 1 x SD9, 2 x D-Racks, 2 x Digital Snakes & Flight Case
72 mic input system available at an introductory total system price - \$28,450

"DiGiCo consoles offers us essentially three important features: superior audio quality, ease of use and versatility, and reliability."

Roy Drukenmiller,
Rock-N-Road Audio Atlanta, GA
L-R: Jeremy Barfield, Roy Drukenmiller,
Mark Archibald



DIGICO

www.digico.biz

Exclusive US distribution: Group One Ltd. Toll Free 877 292 1623 www.g1limited.com

World Radio History

THE RIGHT GEAR, WITH SERVICE TO BACK IT UP!

THAT'S THE SWEETWATER DIFFERENCE!



Our **PROFESSIONAL SALES ENGINEERS** know your gear and will give you one-on-one service that fits your needs.

Rely on our **FACTORY-AUTHORIZED SERVICE** team for repairs done right — with the fast turnaround you need.

Sweetwater pioneered the **FREE 2-YEAR WARRANTY****. We stand behind the gear we sell.

CHECK OUT THE NEWLY UPGRADED SWEETWATER.COM MOBILE SITE!

- Enhanced product research
- Easy-to-use checkout
- SweetTrack® order tracking
- DealZone
- New arrivals
- User-account access
- Product photo galleries with zoom
- Customer reviews
- Product videos
- Tech specs

*Subject to credit approval. Minimum monthly payments required. Call your Sweetwater Sales Engineer for details or visit Sweetwater.com/financing.

**Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit www.sweetwater.com/warranty for complete details.

World Radio History



steinberg
Cubase 7



CC121



FOCAL
PROFESSIONAL
CMS 65

18 MONTHS SPECIAL FINANCING AVAILABLE

ON SELECT BRANDS, USING YOUR SWEETWATER MUSICIAN'S ALL ACCESS PLATINUM CARD, THROUGH APRIL 30, 2013*



SHURE
SRH1440



tc electronic
Pro Tools Production Bundle



 Sound Construction & Supply, Inc.
AVM 6x3 Audio Video
Mixing/Mastering Desk

Our **INDUSTRY-STANDARD TECH SUPPORT** keeps you up and running — and your projects moving.

We offer the **BEST ONLINE RESOURCES IN THE BUSINESS**, giving you answers whenever you need them.

FAST, FREE SHIPPING means you get your gear when you need it, without the extra expense.

 Value Added Reseller
Professional Audio

(800) 222-4700
Sweetwater.com

Sweetwater[®]

Music Instruments & Pro Audio

World Radio History

04.13 Contents

Volume 37, Number 4



FEATURES

36 **The Flaming Lips:**
Tinkering With
Found Sounds for
'The Terror'



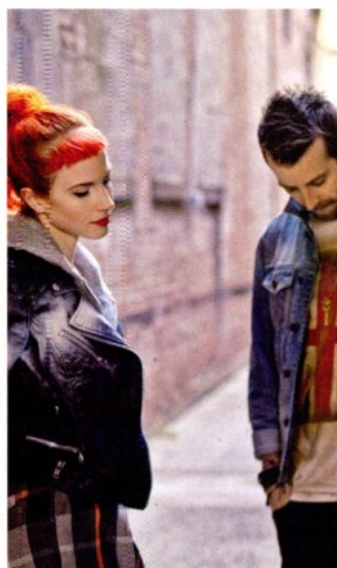
40 **The 'Revolution' Will
Be Televised**

44 **John Roesch**
Honored for a
Lifetime of
'Breaking the Rules'

54 **Mix Guides:**
Portable Recorders

46 **MIX REGIONAL:**
Southwest U.S.
• News & Notes
• Mix Tips: Luca Pretolesi
• Saltmine Recording

MUSIC



17 **Paramore Comes
Back Rockin'**
BY BLAIR JACKSON

20 **News and Notes**

22 **Benedictine Nuns Top
the Charts**

24 **Classic Track:**
Elvis, "Burning Love"
BY BARBARA SCHULTZ

LIVE

29 **Venue Profile:**
SFJAZZ Center
BY MATT GALI AGHER



32 **News and Notes**

34 **All Access:**
Soundgarden
BY STEVE JENNINGS

DEPARTMENTS

- 6 from the editor
- 8 current
- 12 on the cover
- 75 marketplace
- 77 classifieds

TECH

58 **The Robair Report:**
Managing Risk
BY GINO ROBAIR

60 **New Products**

64 **Review:**
Three
Compliance
Metering
Plug-ins



68 **Review:**
Sound Devices
664 Field Mixer

72 **Review:** Waves Non-Linear
Summer

80 **TechTalk:**
AAA - Avid Apple
Anticipation
BY KEVIN BECKA

On the Cover: Dallas Audio Post opened the region's first Dolby-approved re-recording stage, designed by Francis Manzella.
Photo: Glen Katz

Mix, Volume 37, Number 4 (ISSN 0164-9957) is published monthly by NewBay Media LLC 28 East 28th Street, 12th floor, New York, NY 10014. Periodical Postage Paid at New York, NY, and at additional mailing offices. POSTMASTER: Send address changes to Mix, PO Box 8518, Lowell, MA 01853. One-year (12 issues) subscription is \$35. Canada is \$40. All other international is \$50. Printed in the USA. Canadian Post Publications Mail agreement No. 40612608. Canada return address: BleuChip International, P.O. Box 25542, London, ON N6C 6B2.

BETA REBATE

BUY NOW & SAVE



\$20

\$30

\$60

Vocal: BETA 53, BETA 54, BETA 58A,
BETA 87A, BETA 87C

Instrument / Drum: BETA 57A, BETA 27, BETA
52A, BETA 56A, BETA 91A,
BETA 98A/C, BETA 98AD/C,
BETA 98AMP/C, BETA 98H/C, BETA 181/BI,
BETA 131/C, BETA 181/O, BETA 181/S

DMK57-52

BETA 181/KIT
BETA 98 AMP/C-3PK

EXPERT SOUND IN EVERY DETAIL.

Recognized for their superior construction, low handling noise and high gain-before-feedback, Beta Microphones redefine sensitivity and control for essential, expert sound reinforcement.

Visit www.shure.com/rebate for more details and to download the rebate form.

Offer valid on purchases made April 1, 2013-June 30, 2013.



www.shure.com/rebate

© 2013 Shure Incorporated

SHURE[®]
LEGENDARY
PERFORMANCE™

From the Editor

MIX

IT'S TELEVISION, NOT BROADCAST

I am a big fan of the HBO series *Game of Thrones*. I've read the five books, and I've watched from the beginning, live on Sunday nights (okay, I have relied on my DVR and On Demand occasionally). The subject matter might not appeal to all, but damn, you can't argue with the story, the acting, the production values, the sheer epic nature and scope. It's like putting out 10 feature length films in a single television season.

Last night, the author, George R.R. Martin, producers/creators D.B. Weiss and David Benioff, and a selection of the cast stopped by the Palace of Fine Arts in San Francisco for a gala press screening of the Season 3 premiere. Outside there were lords and ladies, dancers and jesters. Inside, at the after-party, there was food and drink named after elements of the show, costumes on display, a giant Iron Throne where you could have your picture taken. HBO doesn't do anything small.

But then HBO knows it has something big on its hands. A worldwide cult phenomenon in the social media age. This became apparent in the question-and-answer period with the creators, who were well aware that they faced a crowd dominated by tech geeks (I say that affectionately), with ample representation from employees of Twitter.

The moderator at one point asked the producers: Could this groundswell of fandom have happened without social media, referencing the plethora of dedicated Twitter feeds and old-fashioned Websites that have sprung up over the years. The cynic in me thought, "Hold on a minute. Twitter is cool. Instagram, too. But let's not forget that *Roots*, way back in the mid-1970s, when rotary phones were the only game in town, still holds the record for percentage of viewer penetration."

But the optimist in me thought, "They're on to something. Television is no longer about broadcast." It's about content, specifically about audiences interacting with the content. More content. Behind the scenes, real-time interaction, commentary. The producers told an anecdote about how they use the Twitter Global View and can watch live as they trend in Turkey. And the comments, the audience reaction to a scene or a storyline, takes place instantly. I don't watch Twitter feeds while I'm immersed in a show, but a lot of people do.

It's more than Twitter, though. George R.R. Martin, who looks as if he still writes on a Smith Corona, gave a plug to HBO Go from the stage, and if you haven't checked it out, you should. It's an interactive gateway to masses of rich content, and it's there anytime you want it, not limited to a Friday night time slot.

HBO by no means has a lock on this type of exchange. I also watch college basketball, and when I can't see my Indiana Hoosiers on TV, I go to espn.com and watch Gamecast and a live stream. You want to see interaction? College basketball fans are as manic and engaged as any *Game of Thrones* diehard.

Interaction takes place in so many Tumblr and Twitter feeds and on so many sites today, that you can start to see the future. In that future, the term "broadcast" will disappear. Heading in to the NAB Show, that seems like sacrilege, but it's not when you step back and think about it. The foundations of television have been disrupted far more than the foundations of the music industry. But the television industry has adapted by making content and audience the bedrock of the future. More content, more background, more engagement. That's great news for audio professionals, because even on the Web, you still have to hear every word.

EDITORIAL

EDITOR Tom Kenny tkenny@nbmedia.com
SENIOR EDITOR Blair Jackson blair@blairjackson.com
TECHNICAL EDITOR Kevin Becka kbecka@earthlink.net
MANAGING EDITOR Lori Kennedy lkennedy@nbmedia.com
ASSISTANT EDITOR Matt Gallagher mgallagher@nbmedia.com
FILM SOUND EDITOR Larry Blake swelltone@aol.com
SOUND REINFORCEMENT EDITOR Steve La Cerra
CONSULTING EDITOR Paul D. Lehrman lehrman@pan.com
CONTRIBUTING EDITORS Barbara Schultz Michael Cooper Eddie Ciletti Gary Eskow Barry Rudolph Matt Hurwitz

ADVERTISING

SENIOR ACCOUNT EXECUTIVE, WESTERN REGION
Janis Crowley jcrowley@nbmedia.com
EUROPE/EASTERN SALES DIRECTOR
Paul Leifer pleifer@media-sales.net
SPECIALTY SALES ASSOCIATE
Doug Ausejo dausejo@nbmedia.com

ART & PRODUCTION

ART DIRECTOR Todd Berkowitz tberkowitz@nbmedia.com
PHOTOGRAPHY Steve Jennings
PRODUCTION MANAGER Heather Tatrow htatrow@nbmedia.com

MARKETING

MARKETING PROJECT MANAGER Tyler Reed treed@nbmedia.com

CIRCULATION

GROUP DIRECTOR, AUDIENCE DEVELOPMENT Meg Estevez

NEWBAY MEDIA AUDIO GROUP

EXECUTIVE VICE PRESIDENT/GROUP PUBLISHING DIRECTOR
AV, CONSUMER ELECTRONICS & EDUCATION DIVISIONS
Adam Goldstein
WEB DIRECTOR Ragan Whiteside
ONLINE PRODUCTION MANAGER Robert Granger
WEB PRODUCTION SPECIALIST Ashley Vermillion

NEWBAY MEDIA CORPORATE

PRESIDENT & CEO Steve Palm
CHIEF FINANCIAL OFFICER Paul Mastronardi
CONTROLLER Jack Liedke
VICE PRESIDENT OF DIGITAL MEDIA Joe Ferrick
VICE PRESIDENT OF AUDIENCE DEVELOPMENT Denise Robbins
VICE PRESIDENT OF CONTENT & MARKETING Anthony Savona
VICE PRESIDENT OF INFORMATION TECHNOLOGY
Anthony Verbanac
VICE PRESIDENT OF HUMAN RESOURCES Ray Vollmer

REPRINTS AND PERMISSIONS For article reprints, please contact our Reprint Coordinator at Wright's Media: 877-652-5295
EDITORIAL OFFICES: 1111 Bayhill Dr., Suite 125, San Bruno, CA 94066

SUBSCRIBER CUSTOMER SERVICE: To subscribe, change your address or check on your current account status, go to mixonline.com and click on "Customer Service" for fastest service. Or, e-mail newbay@computerfulfillment.com, call 888/266-5828, or write to P.O. Box 8518, Lowell, MA 01853

BACK ISSUES: Back issues are available for \$10 each by visiting www.mixonline.com.

ARCHIVES AND MICROFORM: This magazine is available for research and retrieval of selected archived articles from leading electronic databases and online search services, including ProQuest. For microform availability, contact National Archive Publishing Company at 800/521-0600 or 734/761-4700, or search the Serials in Microform listings at napubco.com.

REPRODUCTION: This publication may not be reproduced or quoted in whole or in part by printed or electronic means without written permission of the publishers

LIST RENTAL: Lauren Marchese lmarchese@meridirect.com

NewBayMedia

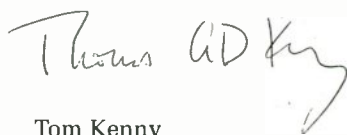
28 East 28th Street, 12th Floor, New York, NY 10016

COPYRIGHT 2013, NewBay Media

ALL RIGHTS RESERVED.

FOUNDED IN 1977

BY DAVID SCHWARTZ, PENNY RIKER AND BILL LASKI



Tom Kenny
Editor

Mix magazine is affiliated with





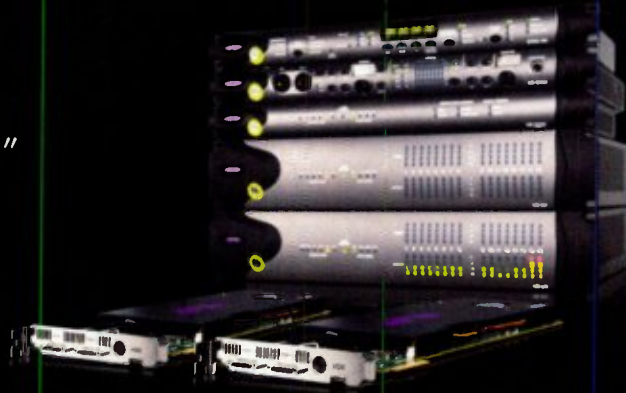
For Abbey Road Studios,
it's all about the sound.

“

Our engineers and clients require the accelerated DSP, fast workflows, and sound quality of HDX with HD Series I/O.”

Simon Campbell

Head of Technical Services, Abbey Road Studios



Take a gigantic leap in sound and speed with **Pro Tools® |HDX**

Learn more: avid.com/protoolshdx

© 2013 Avid Technology, Inc. All rights reserved. Product features, specifications, system requirements, and availability are subject to change without notice. Avid, the Avid logo, and Pro Tools are trademarks or registered trademarks of Avid Technology, Inc. in the U.S. and other countries. All other trademarks contained herein are the property of their respective owners.

Current

COMPILED BY THE MIX EDITORS

Library of Congress Publishes Recording Preservation Plan



Vintage microphones used by Library of Congress field workers and concert sound engineers.

The Library of Congress National Recording Preservation Plan is a blueprint for saving the United States' recorded sound heritage for future generations. The Congressionally mandated plan spells out 32 short- and long-term recommendations involving both the public and private sectors.

"As a nation, our collective energy in creating and consuming sound recordings has not been matched by an equal level of interest in preserving them for posterity," says James H. Billington, Librarian of Congress.

Recommendations include creating a publicly accessible national directory of institutional, corporate and private recorded-sound collections, as well as a national discography that details the production of recordings and the location of preservation copies in public institutions; developing a coordinated national collections policy for sound recordings; establishing university-based degree programs in audio archiving and preservation, and continuing education programs for practicing audio engineers, archivists, curators and librarians; and constructing environmentally controlled storage facilities to provide optimal conditions for long-term preservation.

The plan is the result of more than a decade of work by the Library and its National Recording Preservation Board, which comprises representatives from professional organizations of composers, musicians, musicologists, librarians, archivists and the recording industry.

The preservation plan is available for free as a PDF download, or for \$25 in hard-copy form, at clir.org/pubs/reports/pub156.

Welcome to NAB!

The NAB Show—the annual conference and expo for professionals who create, manage and distribute entertainment across all platforms—comes to the Las Vegas Convention Center April 6-11, 2013. NAB expects to see more than 90,000 attendees from 151 countries and more than 1,600 exhibitors, offering solutions that transcend traditional broadcasting and embrace new means of content delivery.

NABSHOW
Where Content Comes to Life

Some conference highlights include the 67th Broadcast Engineering Conference (BEC), a six-day Conference featuring technical papers addressing the most recent developments in broadcast technology. Topics include an RF Boot Camp on understanding radio and television transmission. On April 6 and 7, the 2013 Technology Summit On Cinema: Advances in Image and Sound (TSC), produced in partnership with SMPTE, will provide a global view of new technology and address perceptual requirements for higher quality image and sound.

The Cloud Computing Conference on April 8 and 9 demonstrates the new ways cloud-based solutions have accomplished better reliability and security for content distribution—from collaboration and post-production to storage, delivery and analytics. From April 8 to April 10, the Creative Master Series brings together key players in the motion picture, TV, advertising and online communities to discuss the craftsmanship of content, including advancing the story through sound.

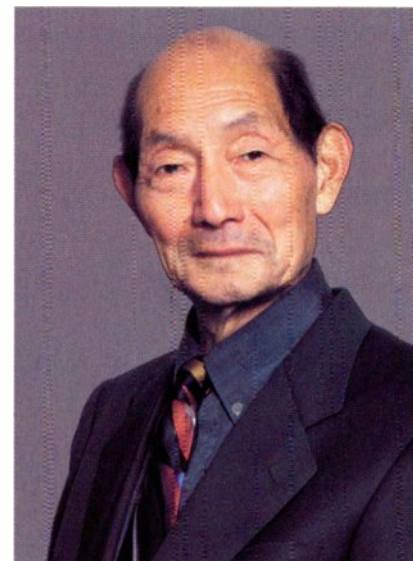
Complete details are available at nabshow.com.

Audio-Technica Founder Hideo Matsushita, 1923-2013

Audio-Technica U.S. mourns the passing of company founder and executive emeritus of Audio-Technica Corporation, Hideo Matsushita, on March 5, 2013. Matsushita passed away of natural causes at the age of 93. In accordance with his family's wishes, a private wake and funeral service were held on March 8 and 9.

Matsushita established Audio-Technica in 1962 with the launch of the company's first product, the AT-1 Stereo Cartridge. "We were headquartered in a rented one-story barracks in Shinjuku," Matsushita recalled in 2002. "We started out with three employees, but quickly grew to 20." In 1993 Matsushita took the position of Chairman, and his son, Kazuo Matsushita, became President of Audio-Technica Corporation, a position he still holds today.

Phil Cajka, Audio-Technica U.S. President and CEO, states, "Hideo Matsushita was a wonderful person and a true visionary, laying the foundation for Audio-Technica to grow over the past 50 years. He exemplified true leadership, with commitment to and passion for music and an unmatched work ethic. His loss is felt not only by everyone in the A-T family, but also by the entire music industry."



Mix With The Masters: Eddie Kramer



Legendary engineer and producer Eddie Kramer (Led Zeppelin, Kiss, Jimi Hendrix, The Beatles, The Rolling Stones, David Bowie) will conduct a seven-day Mix With The Masters seminar from June 17-23, 2013, at Studio La Fabrique in Saint-Rémy de Provence in the South of France.

A small group of selected engineers, producers and musicians will have the opportunity to work with Kramer, who will share his approach and philosophy as he records and mixes the songs of a guest band. Each participant is invited to bring a project to receive feedback from Kramer and other attendees. For the entire week, attendees will be provided with accommodations within the mansion and catering services. For more information, go to mixwiththemasters.com.

AES E-Library

Audio Engineering Society Executive Director Bob Moses has announced new subscription formats for the AES E-Library (aes.org/e-lib), which offers more than 14,000 fully searchable PDF files. Documenting the progression of audio research and development from 1953 to the present day, the E-Library includes every paper published at each of the 133 AES Conventions and 49 international conferences, plus all papers published in the *AES Journal*. Engineering Briefs (eBriefs), recently introduced at conventions, are also accessible.

Individual Subscriptions are \$145 per year for AES members and \$255 per year for non-members. This subscription provides downloads of any document in the E-Library at no additional cost. Institutional E-Library Subscriptions to universities, companies, and libraries are \$1,800 per year. This subscription provides all institution members with free downloads of any document in the E-Library. Individuals may download specific papers without an E-Library subscription at a cost of \$5 per paper for AES members and \$20 per paper for non-members.



Matt Herr Mixes Elton John at Yamaha Dealer Concert

Mix's March 2013 issue Live Sound News & Notes section (p. 26) included an item about the sound for Yamaha's 125th Anniversary Dealer Concert, which was held during Winter NAMM in Anaheim, Calif., and streamed live. We neglected to mention and credit the front-of-house engineer for the concert's headlining artist, Elton John. John played a Yamaha Disklavier piano onstage, accompanied by a 60-piece orchestra, as his actual piano keystrokes were faithfully played, note for note, in real time (via MIDI data) on remote Disklavier pianos all over the world. Herr mixed this performance on a Yamaha CL5 digital console.

"The CL is very user friendly and sounded really good in my opinion," Herr says. "The Neve inserts sounded fantastic; I used one of the compressors on Elton's vocal. Normally, I use an outboard compressor, but this one worked quite well. As far as the NEXO STM line array, it sounded nice and smooth, and I'd like to get my hands on it with the band and really drive it to see what it can do. It seems like it would be a good large line array as opposed to some of the smaller ones out there."



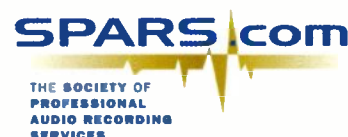
SPARS Sound Bite

The Reality of TV

By Bob Bronow

Wind, water, machinery, engine noise and over-modulation. Welcome to Reality.

On a working fishing vessel in the Bering Sea, things happen fast and they only happen once. What is captured is what we get. But that doesn't change the fact that the story is in the dialog that is recorded on those ships.



As re-recording mixer on *Deadliest Catch* I don't begrudge the sound mixers. That's because there aren't any. Our camera operators do an amazing job getting footage for the show, all while keeping an eye out for rogue waves and falling crab pots! Their rigs consist of a camera (often wrapped in plastic and duct tape) and onboard and lavalier microphones. Audio can come to me full of clicks, crackle, over-modulated, and buried in engine hum.

My approach to mixing *Deadliest Catch* has always been to convey the emotion and magnitude of what these people are doing. For me, sound has always been a very emotional thing, and I enjoy using it to tell these stories.

The dialog is the story, and everything else in the show serves that. So I do everything I can to make sure it's as intelligible as I can make it. To this end, I always start the mix with a noise-reduction pass. I employ a slew of plug-ins and techniques to remove hum, overmodulation, clipping, clicks, wind noise and microphone hits.

Each line of dialog is evaluated and multiple noise-reduction processes are performed. First, I address any clipping or overmodulation. Next I remove engine hum and rumble. Then, if needed, remove clicks and crackle. All dialog tracks have real-time broadband noise reduction plug-ins, which can be automated to deal with additional noise.

The backgrounds (most of which were recorded on the boats) add back the elements, which the camera mics and lavs miss and help to smooth out the dialog.

Then I add narration, hard effects, music and the final mix. This all happens in 25 to 30 hours.

I'm always looking for new technology and techniques to make each episode sound better than the last. Ultimately, if I can convey the feelings of tension and emotion that I feel every time I watch the show, I think I've done my job.

Bob Bronow, CAS, is a Sound Designer/Re-Recording Mixer at Audio Cocktail.



MERCURY RECORDING EQUIPMENT CO.



!NEW! Mercury GrandPreQ15s

"Once you hear it you will want to use it on everything" - MIX MAGAZINE



Mercury EQ-P1 MKIII



Mercury EQ-H1 MKIII

"The Mercury EQs are a quite original. All the tone of a classic tube equalizer but without the noise and much more power... Mercury EQs are one of the best sounding Tube Equalizers on the Planet".

- JOE CHICCARELLI



Mercury M72s MKIII

"The Mercury M72s sounds every bit as good as an original V72s."

TapeOp Magazine



Mercury M76m MKIII

"...ultimate 'vintage-style' mic preamp available today."

TapeOp Magazine



Mercury 66 MKIII

"If tone was a drug the M66 would be Heroin"

www.MercuryRecordingEquipment.com



Follow Us on Facebook & Twitter

510-581-3817



ONLY at mixonline.com^o

MIXBLOGS



TechTicker

Getting your head around a new console, especially one that has custom features can be a challenge. I recently sat in on a session in a room that had a Neve 8078 console that had been completely refurbished and hot rodded.

blog.mixonline.com/mixblog/category/techticker



Robair Report

Online storage, often referred to as "the cloud," is seen as the perfect solution for critical data storage. This month, we'll examine Gobbler, which addresses the specific requirements of audio production with its cloud-based asset management and collaboration tools.

blog.mixonline.com/mixblog/category/robair_report



Ask Eddie

Everyone is talking about the CALM Act and the ATSC A/85 specification. The goal is to resolve the audio level discrepancy between video programming (TV, films, etc.) and commercials ("interstitials"). There is some humor in this—on multiple levels.

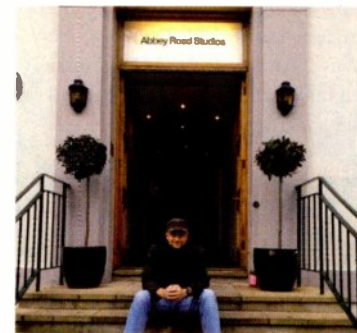
blog.mixonline.com/mixblog/category/ask_eddie

SoundWorks Collection Update

Composer Yoav Goren

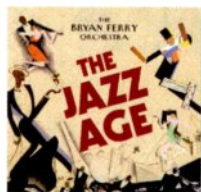
Yoav Goren is an Emmy Award-winning composer and the president of Immediate Music (immediatemusic.com), the world's most successful trailer music library, having licensed its works to more than 5,000 film and television advertising campaigns.

mixonline.com/post/features/video_soundworks_collection



Cool Spin:

**The Bryan Ferry Orchestra:
The Jazz Age (BMG)**



I trust Bryan Ferry. He has impeccable taste and is consistently imaginative. So when word came down that his new album would consist of a baker's dozen of his Roxy Music and solo songs re-arranged in the '20s jazz style of early groups...

mixonline.com/cool-spins

FREE: Webcasts on Demand

- Recording with Focusrite's RedNet I/O *Sponsored by Shure*
- Audio Electronics Test & Measurement: Solutions for Streamlining Your Workflow *Sponsored by Lynx*
- Pushing the Limits of Creativity: Dave Pensado Talks Tech, Art and Pro Tools 10 *Sponsored by Avid*
- Multi-Mic, Multi-Source Mixing for Live Events *Sponsored by Lectrosonics*
- Recording and Mixing Techniques for Vocal Recording *Sponsored by Steinberg*
- Digital Converters for Today's Studio *Sponsored by Lynx*
- Tracking, Comping and Editing Drums and Maximum Note Expression With Cubase 6 *Sponsored by Steinberg*
- Editing and Mastering Solutions With WaveLab 7 for Mac and Windows *Sponsored by Steinberg*

mixonline.com/webcasts



And then something remarkable comes along

For 35 years we've been making loudspeakers that have consistently set the standard for the purest, most accurate sound out there. And right from the start we've been doing it with sustainable materials and the technical innovations that take Genelec far beyond the ordinary. We still do everything under one roof in Finland – from the drawing board to the final package, each speaker is carefully handcrafted with unmatched attention to detail. www.genelec.com

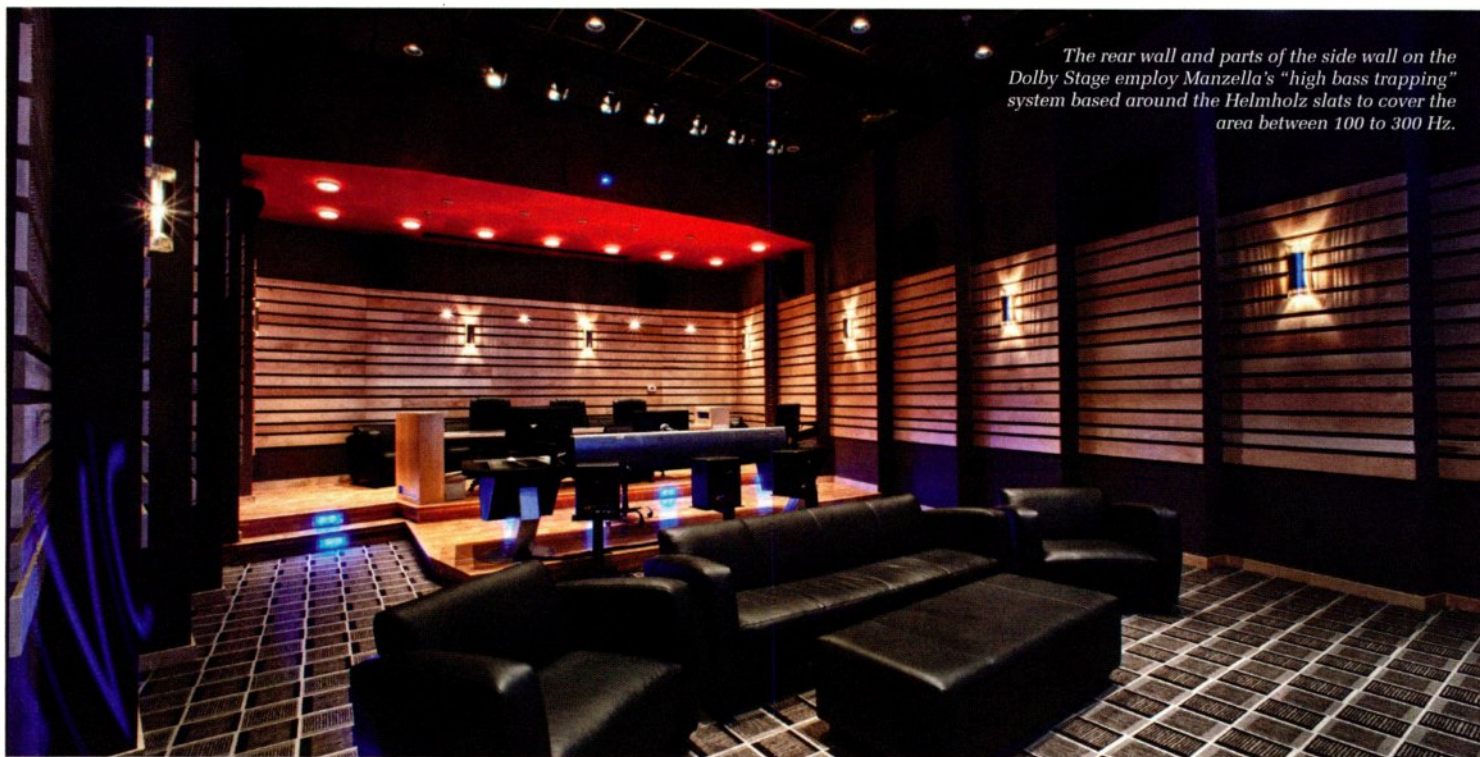
GENELEC® MUSIC
CREATION

Genelec Inc. 7 Tech Circle Natick, MA 01760 - 508 652 0900(t) 508 652 0909(f)

On the Cover

By Tom Kenny

DALLAS AUDIO POST



The rear wall and parts of the side wall on the Dolby Stage employ Manzella's "high bass trapping" system based around the Helmholtz slats to cover the area between 100 to 300 Hz.

Roy Machado has a good thing going in Dallas. He arrived from Atlanta back in the mid-1980s to study music at the world-renowned University of North Texas, and today he is the owner/president/creative director of the biggest, baddest post house in town, with all-new facilities, including the region's first Dolby-approved dub stage, and work coming in from across the country.

It's actually Machado's fourth "opening" of Dallas Audio Post since the first iteration debuted humbly in 1994. The company has grown steadily and organically, self-financed, never living beyond its means. Expanding as the business demanded it, not to try to get the business. In March 2012, after years of leasing spaces around town, eventually outgrowing them, he and his team moved into 10,500 square feet of brand-new, ground-up construction, a five-

studio facility to call their own.

"Dallas is a big metro area, bigger than what most people think," Machado says. "It has a vibrant local economy that largely withstood the downturn. There is a tremendous amount of corporate activity, audio for TV and film, sports teams, amazing musicians and live events. A real wide variety of clients who need audio services. By 2010 we were bursting at the seams and we needed more recording space. But mostly we needed a dedicated mixing space."

That mixing space, dubbed the Dolby Stage, is featured on this month's cover, and it became the focus for how the rest of the warehouse-style building would be laid out, most importantly in determining the overall height. After spending a good 18 months finding the right location and refining a "limited, aggressive, self-financed" budget, Machado called in Fran Manzella of FM Design for some acoustic expertise.

DESIGN CRITERIA

"The advantage of ground-up construction is that you get to do what you want to do; the disadvantage of ground-up construction is that you get to do what you want to do," Manzella says. [Laughs.] "Sometimes the most difficult project is the one that starts with a blank piece of paper. An existing facility often will tell you what it should be. But in this case, Roy was the ideal client. He is articulate about what he wants, and he's educated enough to listen, to understand both the limits and the possibilities."

Manzella did inherit a few limits regarding the overall structure, but nothing that affected the Dolby Stage. He knew from the beginning that Machado had a long-standing relationship with Acoustic Systems (Austin) and was going to be bringing over two modular studios and three vocal booths from the previous leased space. But he also wanted three new studios

Ear Candy.



Two 312 discrete mic preamps
plus our new analog to digital converter.

The A²D from API.

It's a sight for sore ears.

www.apiaudio.com
World Radio History
301.776.7879





and additional recording capability. It would be, from the start, all parties agreed, a combination of traditional and modular construction.

"We had these isolation shells," Machado explains, "and we knew we could build new outer shells, new floors and integrate them into the building, but not necessarily for the same purpose. One of the 5.1 mix rooms from the old place became our ADR/Foley stage at the new building, with pits built into the new poured slab. All the floors are floated, and everything is isolated; we just kept the interior shells."

Besides the 5.1 room, a stereo music room was also brought over and integrated. Three new control rooms were built—Dolby Stage, stereo music room, all-new 5.1 mix room—and additional ADR booths were added. Voice recording is a huge part of the Dallas Audio Post business, and it was crucial to Machado that engineers be able to record anywhere, or pull sessions up in any room.

"The client diversity has helped us tremendously over the years," Machado says, admitting that he's never had a marketing plan or a sales team, relying on quality work and word of mouth. "Roughly 65 percent of our work now comes from outside of Dallas. We have relationships with all the film studios at this point for ADR work in film and episodic TV. We are one of the biggest producers of political spots outside of D.C., we do corporate, all the local professional sports teams, including in-game content. We do TV and radio spots, toy design and game design, and in 2010, we had seven independent films, with soup-to-nuts audio.

"With all that variety, we had to be sure that our rooms translated, both within the facility and to the outside world," he continues. "That's one of the reasons we put a second, near/mid-field monitoring system on the Dolby Stage, so that we could work in film or TV at the switch of a button. We might have Cinemark coming in from Plano to do a 5.1 mix telling you to get your popcorn, then switch in the afternoon to agency work on a TV spot. Both of them are mixed in a world-class room."

THE DOLBY STAGE

Dolby in the U.S. doesn't really have a "certification," though they do have recommendations on room dimensions, speaker throw, speaker and screen configuration, number of speaker channels and the like, which lead to a Dolby approval. Dallas Audio Post, at 40x25 with 18-foot ceiling, is not as large as an A-list Hollywood stage, but it exceeds the minimum requirements in all respects.

The Avid Icon console sits two-thirds of the way back in the room, and it's pretty much all-digital throughout with recording to Pro Tools HDX, but the centerpiece is really the 11.2 Meyer EXP System, known in

the vernacular as Acheron.

"One of the real joys for me on this project was working with Dolby and Meyer on the tuning of the room," Manzella says. "First, Meyer set up the traditional X-curve, because Roy needs to interface with Hollywood and do his own films. But then they also did a flat curve for the 5.1 TV work. Then Coach from Dolby [Tom Ehle] comes in and sets up multiple mics in multiple locations and averages the room. Then I measure. And we all worked together. I am very familiar with room tuning as a staple of our work, and it was still very educational for me."

Every new room today needs to serve multiple purposes, and both Machado and Manzella knew that the Dolby Stage could not just do feature film and episodic TV work. To ensure the changeover from film/TV to spot work and even radio, they brought in a near-mid-field JBL 6238 5.1 system, on motorized lifts, to monitor when switching to the flat curve.

"We needed the spaces to fit the work that we do," Machado says. "I never once believed that if we built a Dolby Stage that people would come running. We simply wanted a dedicated mix room where we could do the work that we do, whether we are working on an indie film or a political spot or an original composition."

Some of that versatility is accomplished in the switch from Meyer EXP Cinema to JBL in the mid-field, but some of it is also accomplished in the back-wall construction, something of a signature for Manzella.

"The back walls in all the normal-size rooms are fairly normal RFZ designs," Manzella explains. "We have trapping straddling a diffuser system. I like to do these Helmholtz slats over my traps in the back because we get a little more return from the back of the room in the mid and high frequencies, and that's okay. Then the Helmholtz slat-style treatment with deeper trapping behind it covers that area between 100 and 300 Hz very well. A lot of rooms have mud in that 100 to 300 range, and if you don't dampen that area, I find that it can make an unclear transition from low to midrange. We continued the Helmholtz trapping around the side walls because these speakers are now in the far field. You want it to sound even, with no perceptible decay. It's supposed to sound like a room, whether you are mixing for film or TV."

SO MUCH MORE

There are dozens of other stories surrounding the construction and integration, many of them focused on making the space dead quiet throughout. Just a couple of them:

HVAC was considered mission critical; it gets hot in Texas. Machado wanted redundancy, and the team came up with a scheme where the fans were inside in a central mechanical space, the six compressors on the side of the building. A spare unit provided complete backup, with a manifold above the ductwork that allowed instant switching if any one of the six units went down.

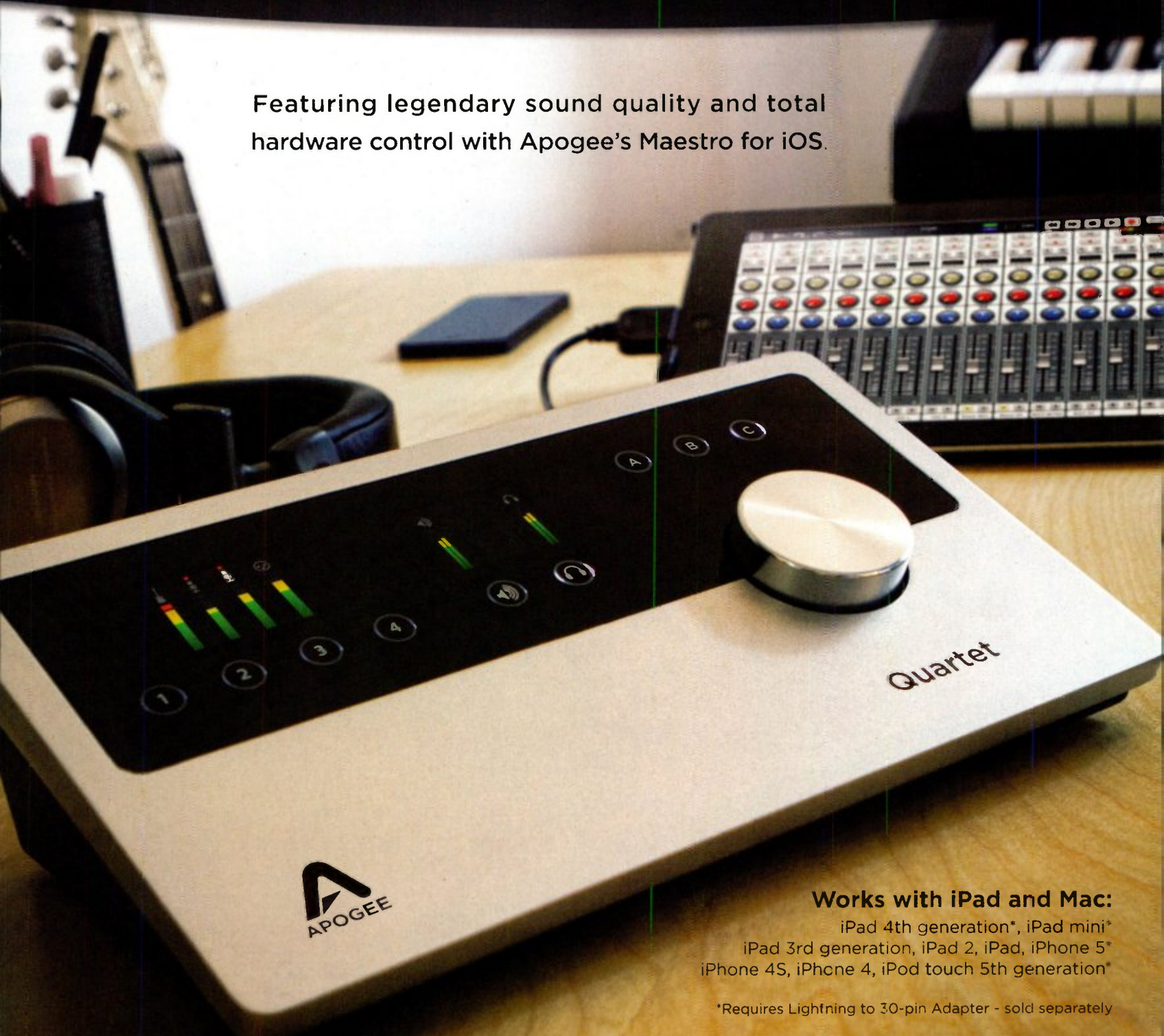
Also, Machado is a hands-on guy. His team at Dallas Audio Post handled all of the integration and termination of the wiring and infrastructure, almost entirely Fiber and Cat 6. The old facility closed on a Friday, the new facility opened on Monday morning. A real homegrown effort. The way business has to be done today.

"The heart of our success has been putting out great-sounding work," Machado concludes. "We live by word of mouth, and everyone here on staff is passionate about what we do. We have a 19-year track record now, and I think our work is getting even better because of the spaces we now have." ■

Apogee Quartet

Multi-channel Recording on iPad Goes Pro

Featuring legendary sound quality and total hardware control with Apogee's Maestro for iOS.



Works with iPad and Mac:

iPad 4th generation*, iPad mini*
iPad 3rd generation, iPad 2, iPad, iPhone 5*
iPhone 4S, iPhone 4, iPod touch 5th generation*

*Requires Lightning to 30-pin Adapter - sold separately

Find out more about Quartet at
www.apogeedigital.com



Designed in California
Made in U.S.A.



FULL SAIL UNIVERSITY®

Campus & Online Degrees Available

Music Business

Music Production

Recording Arts

Show Production

BRING
YOUR

SOUND
TO
LIFE

The sounds, the shows, the songwriting, and the business deals that make it all come together – Full Sail University’s music programs are designed for the many diverse paths within the industry. If you’ve got something to bring to the music world, a Full Sail degree can help you get there.



800.226.7625
fullsail.edu

3300 University Boulevard • Winter Park, FL

Financial aid available for those who qualify • Career development assistance • Accredited University, ACCSC
To view detailed information regarding tuition, student outcomes, and related statistics, please visit fullsail.edu/outcomes-and-statistics.

World Radio History

Music

ELVIS

BURNING LOVE

PARAMORE

By Blair Jackson 17

NEWS & NOTES 20

BENEDICTINES OF MARY, QUEEN OF APOSTLES

By Blair Jackson 22

CLASSIC TRACKS: ELVIS

By Barbara Schultz 24



Hayley Williams, Jeremy Davis and Taylor York

Photo: Pamela Littky

PARAMORE COMES BACK ROCKIN' ON NEW ALBUM

By Blair Jackson

In the three-and-a-half years since Paramore's *Brand New Eyes* was released and sold more than a million copies worldwide, the Tennessee-based alt-pop/rock band has survived a difficult change in personnel with the departure of founding members Josh and Zac Farro, and the three remaining core musicians—singer Hayley Williams, guitarist Taylor York and bassist Jeremy Davis—have gone through some serious soul searching and musical exploration.

They've come out on the other side of their transitional period with a slammin' new self-

titled album, recorded in L.A. by engineer Carlos de la Garza and producer/musician Justin Meldal-Johnsen for the Fueled By Ramen label. Meldal-Johnsen—aka "JM"—is best known for his long stints with Beck and Nine Inch Nails, and as a session bassist (and keyboardist) for a wide range of acts, including the Dixie Chicks, Tori Amos, Garbage, Black-Eyed Peas, Jason Mraz, Macy Gray and Pink. But he's also ventured into production, helming works by M83, Neon Trees, Tegan & Sara and others. JM worked on those last two with de La Garza—a producer/engineer who runs his

own L.A. studio, called Music Friends.

Taylor York was the primary music writer on the new album—with Williams contributing lyrics and some melodic ideas—and York also worked up fairly elaborate demos for many songs in his home studio.

"Then I flew them out to L.A. to my studio [Dangerbird]," JM says, "and we spent a good amount of time dismantling their songs and getting into this sort of pre-production phase, which also turned into them doing some further writing on the spot, and me contributing to a little bit of



Producer Justin Meldal-Johnsen

writing, as well. After that we had another phase, and that was a full-on preproduction, which is when we brought in my Nine Inch Nails associate Ilan Rubin to play drums, and we spent about six days getting the songs to feel not only under their fingers in terms of the mechanics of what they were playing, but also to get a band feeling with Ilan incorporated. They gelled immediately, and six days later we had 17 songs ready to track.” (Rubin also played some piano on the album.)

The quartet laid down basics in Sunset Sound’s historic Studio 3—which is equipped with a custom API-DeMedio console. “We were mostly going for the drums,” de la Garza says, “but we had the guitar and bass playing along at the same time, and we tried to give it a live vibe by keeping as many of those bass and guitar takes as possible. Later, we went back to do the overdubs and tried to beat all the sounds we had, but there were a few that we kept that had a cool vibe that we were fine with. Hayley did scratch vocals on everything and she was amazing. I could have used any one of those takes to make the lead vocal on a track with minor editing.”

To capture Rubin’s drums, de la Garza used a Josephson e22S in combo with a Shure SM57 on top of the snare and a 57 under the snare; an AKG D 112 for some of the kick tracks, “but a lot of it is actually an AKG 441 and Subkick NS 10” for toms; Audio-Technica ATM25s on the

top and 421s on the bottom; a Royer SF-24 stereo ribbon and a Sony C-24 as overheads; “and on the room we used some Cole 4038, [Neumann] U 67s, and on a couple of songs we used 251s for the far mics and a couple of Sony C-37s.”

Amps were well isolated from the drums and miked with a Sennheiser 421 and a 57 for York’s guitars and a 47 FET for Davis’ bass.

Once they had nailed solid drum tracks, the action shifted to JM’s well-equipped Dangerbird studio—located in a craftsman-style duplex—for guitar, bass and keyboard overdubs, plus all the vocals. The control room is in a former dining room, the machine room was a kitchen and the tracking room is two bedrooms combined into one space. The control boasts an API 1608 console and “synths wall-to-wall permanently patched for easy access,” JM says. “We spent a long time setting up the ideal situations for bass amps and guitar amps, a mic that was there to capture percussion and other bits, and a vocal station.” Williams’ lead vocals were cut using a Telefunken 251 into a Chandler mic pre, a Neve 1073 EQ, a Retro 176 compressor or an Inward Connections Vac Rac TSL-3 limiter.

There’s a lot of vocal, guitar and keyboard layering, and judicious use of strings (arranged by Roger Manning) and a choir—both recorded later at Sunset—that give the album a richness and depth, but JM and de la Garza were careful not to sacrifice energy and punch in the process. Ken Andrews (NIN, Beck, BRMC) mixed the album in his own studio.

“It was important to let the emotion shine throughout without it being pasteurized and edited into oblivion,” JM notes. While acknowledging a certain commercial sheen on a number of tracks, he says, “There are some moments on this record that are extraordinarily gritty. I wanted some raw nerves showing through.”

And from the band’s perspective, “This album could not have been made with any other team,” comments Taylor York. “JM and Carlos opened up our eyes and ears to a different way of creating and how truly pleasing tones are created. We learned techniques and an intentionality that we will carry with us for the rest of our band’s existence.” ■

HEY MARSEILLES

Ins and Outs of Tracking Strings

Seattle-based group Hey Marseilles blends horns, strings, guitars and vocals with electronic instruments to make rich, ethereal music that defies category. At the heart of this band’s sound are the complex string parts, arranged and produced by their cellist/producer/engineer, Sam Anderson, who tracked most of *The Lines We Trace* (Onto/Thirty Tigers) in his home studio.



Anderson lives in a duplex that’s split into home on the bottom and studio on top. He says these tracks were recorded to Logic piece by piece. “The way strings work on this record is something that was very personal to me, and I put a lot of thought into different techniques. There’s one song where a quartet does all the string parts, and that was performed all together. There’s a couple where my brother [Jacob Anderson] and I perform cello and viola together.”

Anderson’s go-to recording chain for his own instrument is a Lawson 47 FET mic into a Brent Averill-designed 312A preamp (part of his API Lunchbox) and a Buzz Audio Essence Opto Compressor. “In the past, I wasn’t partial to compression on my cello, but I’ve been using this chain with some light tweaks on the Essence, and that’s turned out to be a really solid chain for cello.”

That said, Anderson also made some lovely low-fi recordings for the song “Elegy.” “There’s a string outro at the end, and I recorded those parts in a tunnel in Golden Gardens Park here in Seattle,” Anderson says. “I actually used my iPhone as a mic, and that was an intentional decision. The mic choice matters so little if the performance is felt, and that was part of my point. I get some kind of satisfaction from knowing that no one who hears it would think: He used the cheapest microphone available.”

— Barbara Schultz

more online



For an extended interview with Meldal-Johnsen and de la Garza, visit mixonline.com/042013



Yamaha Presents

THE CL5 72 HOUR TEST DRIVE

Talk is Cheap.

From the makers of the world's most rider-friendly digital mixers, Yamaha's newest addition, the CL Series, comes from a strong heritage of touring consoles. Featuring the same output structure of the legendary PM5D with even more inputs along with phenomenal sound quality, the CL Series is a wise business investment for more reasons than we can list. *But we don't expect you to take our word. We expect to give it to you. Here's how.*

For a limited time, take the CL5 for a 72 hour test drive from one of our participating dealers, free of charge.* A complete demo system including:

A CL5 with 2 Rio3224-D I/O units in a stage rack and a 150' snake are yours to borrow for any gig you'd like for 72 hours. That's a very capable 72 input + 35 output system. Take it for a test drive and experience for yourself why the CL Series is worthy of your praise.**

For more information, visit www.yamahaca.com/cltestdrive

Participating Dealers:

U.S.A.

Arizona

Engineering & Recording, Inc. - Phoenix

California

Hi-Tech Audio - Burlingame
Hollywood Sound Systems - Hollywood
Muzeek World - San Juan Capistrano

Colorado

Richter Scale Productions - Denver

Florida

Focused Technology - Sarasota

Georgia

Peachstate Audio - Suwanee

Illinois

TC Furlong, Inc. - Lake Forest

Kansas

Digital Sound Systems, Inc. - Overland Park

Massachusetts

ATC Audio - West Springfield
Pro Sound Service Inc. - Braintree

Maryland

Washington Professional Systems - Wheaton

Michigan

Thunder Audio, Inc. - Livonia

Minnesota

Reach Communications - Brooklyn Park

Missouri

Signal Systems - St. Louis
Sounds Great - Springfield

Mississippi

Millennium Music Center - Hattiesburg

North Carolina

Draughon Brothers, Inc. - Fayetteville
SE Systems, Inc. - Greensboro
World Class Acoustical Visual Elements (WAVE) - Harrisburg

New York

AVS Production Group - Bronx

Ohio

Eighth Day Sound - Highland Heights

Oregon

AGI, Inc. - Eugene

Pennsylvania

Philadelphia Sound Productions, Inc. - Philadelphia

South Carolina

Audio Communications Systems, Inc. - Columbia
Paragon Productions, Inc. - Rock Hill

Tennessee

CTS Audio - Brentwood
Memphis Audio - Memphis
Spectrum Sound, Inc. - Nashville

Texas

JPK Corp. - ProAudio.com - Grand Prairie

Wisconsin

Full Compass Systems - Madison

Canada

Alberta

Allstar Show Industries - Edmonton
Sound Art - Winnipeg

Nova Scotia

Sound Systems Plus, Inc. - Halifax

Ontario

Wall Sound, Inc. - Ottawa

Quebec

L'Audio-C Sonorisation Inc. - Trois Rivières
Solotech, Inc. - Montreal

*Dealer may require deposit, shipping charges, etc.

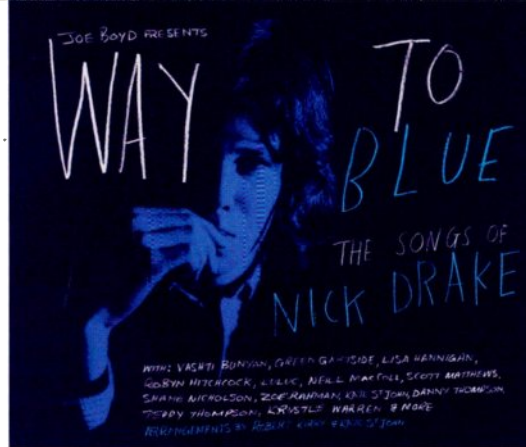
**Offer valid in the U.S. and Canada only. Promotion expires on June 30th, 2013.



NICK DRAKE HONORED LIVE ON 'WAY TO BLUE'

"People have suggested I do a tribute album for years, but I didn't want to do the usual kind of tribute, where all the tracks are recorded separately," explains Joe Boyd, who produced two of the late singer/songwriter Nick Drake's albums. Last year, Boyd, who also worked as a tour production manager early in his career, produced a series of tribute concerts in the UK, Italy and Australia, with various artists performing Drake's songs. The dates were recorded to Pro Tools, and 15 songs were mixed by engineer Jerry Boys at Livingston Studios (London) for release on the album, *Way to Blue: The Songs of Nick Drake*.

"Each track has a different history, but working together, there was a common approach forged by the fact that the band was always the same, except for one guitarist in Australia," Boyd says. "I think even those who love Nick's recordings were surprised by the impact of these songs when sung by such a diverse group of singers. To me, this proves what a remarkable songwriter he was, and I think one can now say with some confidence that the songs will last a very long time."—Barbara Schultz



MICHAEL GALLANT TRIO, 'COMPLETELY'

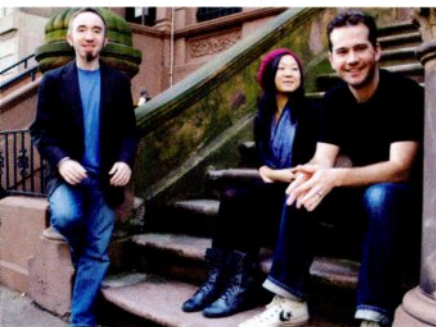


Photo: Logan Grendel

For his debut album, pianist/keyboardist Michael Gallant (gallantmusic.com) collaborated with bassist Linda Oh and drummer Chris Infusino on 10 tracks (including nine original songs) that meld melodic, propulsive jazz piano-trio improvisation with a gritty, forceful rock 'n' roll attitude. "I wanted [the album] to draw in the musical influences that really got

to me personally," Gallant says, citing jazz pianists McCoy Tyner, Herbie Hancock, Art Tatum, Erroll Garner and Bill Evans, as well as the bands Pearl Jam, Phish, Metallica, Aerosmith, and Medeski Martin & Wood. "I knew that the way that I wrote, arranged and played music can be aggressive, and I wanted that to be reflected in the recording and mixing."

Gallant teamed with engineer Mario J. McNulty (a Grammy Award winner in 2008 with Angélique Kidjo) and recorded in New York City's MSR Studios (msrstudiosny.com). "They have a beautiful 9-foot Yamaha grand [in Studio A]," Gallant says. "I liked the fact that it challenged me a little bit." Gallant also played a Nord Electro 3HP through a vintage Leslie speaker.

McNulty recorded the trio to Pro Tools using five microphones on the piano: "Schoeps for the main stereo pair, plus a Neumann FET 47 for the low end, then two stereo room mics, which were probably 414s," McNulty says. Drums were in a large iso booth with multiple mics for a rock/pop approach, while Oh was in a smaller iso booth playing an acoustic upright bass miked with a KM 84 on top and U 47 on the bottom, and electric bass going through an Ampeg B15 cabinet. "I used all of MSR's vintage Neve [1081] preamps with EQ," McNulty says. "I also used some mild compression on several things, like Distressors on kick drums, snares, a little compression on the bass. Nothing too drastic there, but I do try to EQ to tape the sound I want for the mix."—Matt Gallagher



BETH HART'S 'BANG BANG BOOM BOOM'

Kevin Shirley handpicked a band for roots singer/songwriter Beth Hart before tracking her new solo album *Bang Bang Boom Boom* in Reverb Recordings (Thousand Oaks, Calif., reverbrecordings.com). Hart had sent Shirley masses of material, and the engineer/producer—who is committed to live band tracking—knew he needed players who could get great live takes, and be versatile enough to handle anything from rockers like "Better Man" to blues ballads like "Everything Must Change," which features a solo by guitarist Joe Bonamassa. Other musicians on the record include guitarist Randy Flowers, bassist Michael Rhodes, and three drummers: Anton Fig, Herman Matthews and Curt Bisquera.

Hart plays piano on the album, and many of those parts were cut live as she was singing with the band. "There's one track, 'With You Every Day,' that's a full take of her [playing piano and singing] and her band playing. That was the first day Herman Matthews walked in. He sat down at 1:00, and at 1:05 we had a song," Shirley says.

Shirley's MO is to keep things as simple as possible. Hart's vocal was to a Sony 800 mic that he brought from his personal studio, The Cave, through a Neve pre, and straight to Pro Tools HD. On guitars, Shirley turns to a hand-built TUL G12 microphone that the company specially designed to his specs: "They looked at the way I normally recorded, with a couple of mics, and combined them into one microphone," Shirley explains. "I use it on everything. It's a fantastic mic. It will take a lot of power. I never have issues with it distorting. You don't use any compression or EQ; it goes from amp to CD."

During the mix, on his SSL Duality in The Cave, Shirley used some favorite outboard pieces, such as Summit TLA-100A compression on Hart's vocal. "My studio is about as old school as you can get," he says. "I have all analog compressors, and some wonderful high-end pieces, like the GML 9500 EQ on the 2 bus. I use it on everything. It's part of my life: coffee and GML."—Barbara Schultz



CREATE.
COLLABORATE.
CAPTIVATE.

UNIVERSAL STUDIOS POST PRODUCTION MEDIA SERVICES

SOUND MIXING
SOUND EDITORIAL & DESIGN
PICTURE EDITORIAL & AVID RENTALS
MUSIC EDITORIAL
EFILM™ & COMPANY 3™ DI SUITE
REMOTE REVIEW/PLAYBACK
ADR
FOLEY
DIGITAL MASTERING

AUDIO PRESERVATION AND RESTORATION
ARCHIVAL SERVICES
SOUND TRANSFER
QC
SCREENING & PROJECTION
ENGINEERING/TECHNICAL SUPPORT
AUDIO VISUAL MEDIA SERVICES
EXCEPTIONAL CLIENT SERVICES

818.777.0169 800.892.1979
filmmakersdestination.com

Find Us  



BENEDICTINE NUNS TOP THE CHARTS!

Recording 'Advent at Ephesus'

By Blair Jackson



One of the surprise hits of the last holiday season was a recording by a group of cloistered monastic nuns singing religious songs and Gregorian chants dating back to the Middle Ages, in Latin and English, a cappella, in the chapel of their priory in the hills of rural northwest Missouri. *Advent at Ephesus*, by the Benedictines of Mary, Queen of Apostles, topped *Billboard's* Classical Music chart for a month, made it into the Top 10 of the Contemporary Christian and Gospel charts, and was a big seller for both Barnes & Noble and Amazon. "Rumor has it we actually outsold Taylor Swift during the Christmas season," says Glenn Rosenstein, who produced the 16-song CD for the sacred music label De Montfort Music, distributed by Decca/Universal. With sales at over 100,000 in just a few months, it's an impressive accomplishment. It was also quite a challenge to record.

The Nashville-based Rosenstein, whose distinguished recording career includes work with the likes of Madonna, U2, Ziggy Marley, Michelle Shocked, Talking Heads and dozens more, was attracted to the project because "it was something new and different, outside anything I've done in the course of my career." To aid him on the project, he brought in fellow Nashvillian David Schober, whom he describes as "a world-class engineer with a lot of experience in both the classical and faith-based recording worlds."

In terms of the recording, Rosenstein says, "We had no advance work whatsoever. We loaded up my SUV with a bunch of equipment, drove for 11 hours [from Nashville], got there, assessed the situation, and we had effectively one evening to set everything up. Shockingly, every contingency we planned for fell into place, and we were very fortunate that nothing went wrong—anything from gear to voltage problems to noise issues to 'did we bring the wrong thing?' We were in the middle of nowhere, so if we didn't have what we needed, we were in trouble."

This order of Benedictine nuns sings and chants eight times a day in the

modern chapel on their isolated priory grounds. They speak at a minimum, and when they are not engaged in singing/prayer, they sew and embroider priests' vestments and prayer cloths, and work in the orchard and small farm on their property. The musical selections and arrangements for the CD—their first professional recording after a pair of more low-fi discs—were made by prioress Mother Cecilia Snell, a former symphony French horn player before she joined the religious community. Mother Cecilia also served as the intermediary between the nuns and others involved in the project.

"We didn't have unfettered access to the Sisters 24/7," Rosenstein says. "In fact we had to leave when they were doing their normal prayers. Logistically, it was an interesting set of hurdles and obstacles, but with a combination of their cooperation, Dave's great work, and our sheer luck, we were able to get something really good."

Rosenstein and Schober were situated at a table across the chapel from the singers, who sang in groups of up to 27 members, under Mother Cecilia's direction. "We had a Mac Pro running a Pro Tools 10 HDX rig," Rosenstein notes. "For monitoring we used Mackie HR824s, which was Dave's choice, and we had Accusound cables, which I am extremely fond of. As far as mic pre's, we used the Avid 8-channel mic pre, along with a [2-channel] PreSonus ADL 600."

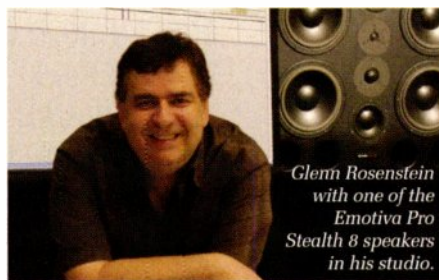
Mics were elevated on stands in spaced intervals in front of the singers and also included a classical-style-shaped "Decca Tree" setup a little further back. Rosenstein says, "We used a combination of Sony C-800Gs

I own, a pair of my [Neumann] KM 84s, some Neumann M 149s and a bunch of the Miktek C5s, which we used mainly as spot mics for enhancing certain parts and giving us more mix options.

"The room itself was fairly reflective, with hardwood floors; not stone, which is what we were emotionally and logistically preparing for, I think. It's a modern building. I was wondering in advance, [about] how we were going to control the sound in such a reflective space, but the room ended up being an asset, not a liability. It had a really nice sound

to it. Also, we used these Auralex [PlatFeet II] isolators under the mic stands, including the Tree, and they made the room sound infinitely more usable because we weren't picking up vibrations through the stands."

Rosenstein says that from the time he was approached about the project by De Montfort Music's Monica Fitzgibbons—whom he knew from her previous association with DreamWorks—to completion was just 11 days. It was recorded October 3-6, "with some songs done in one or two takes, a few requiring more, and we did some editing, very much in the classical style," he says. The tracks were prepped and edited at Rosenstein's Skylight Studio, and then mixed in the Pro Tools 10 HDX system at Schober's studio. "We used a touch of Altiverb 7 on it," but most of what we hear on the finished product is just the heavenly voices in the glorious-sounding chapel. ■



Glenn Rosenstein with one of the Emotiva Pro Stealth 8 speakers in his studio.

GC Pro carries the gear you want from the world's most respected brands

- A-Designs
- ADAM Audio
- Allen & Heath
- Antares
- Aphex
- API
- Apogee
- Apple Computer
- Audient
- Audix
- Auralex
- Avalon Design
- Avid
- Avid Venue
- BAE
- Benchmark
- Blue Microphones
- Bock Audio
- Brauner Microphones
- Bricasti Designs
- Burl Audio
- Cakewalk
- Chameleon Labs
- Chandler
- Crane Song
- Crown
- Dangerous Music
- DAS
- dbx
- DPA
- Drawmer
- Dynaudio Acoustics
- Earthworks
- Elysia
- Empirical Labs
- Euphonix
- Eventide
- Focal
- Focusrite
- Furman
- Genelec
- Glyph
- GML
- Grace Designs
- Great River
- JBL
- JDK Audio
- KRK
- LaChapell
- Lexicon
- Lucid
- Lynx
- Manley
- Martinsound
- McDSP
- Millennia
- Monster Power
- MOTU
- Neumann
- Neve 500 series
- Neve Genesys
- Ocean Way
- Peavey
- PreSonus
- Purple Audio
- QSC
- Radial
- RME
- Royer
- Rupert Neve
- Schoepps
- Sennheiser
- Shure
- Solid State Logic
- Sonnox
- Sony
- Sterling Mics
- Steve Slate Audio
- Summit Audio
- Tannoy
- TC Electronics
- Thermionic Culture
- True Systems
- Unity Audio
- Universal Audio
- Vintech
- Waves
- Yamaha

Introducing Penteo 3 Pro: Stereo to 5.1 and back under full control

“Penteo creates a fantastic ‘True 5.1’ spatial experience without sacrificing the transient and dynamic punch of the original recording.”

Michael Babcock
Sound Designer/Re-recording Mixer

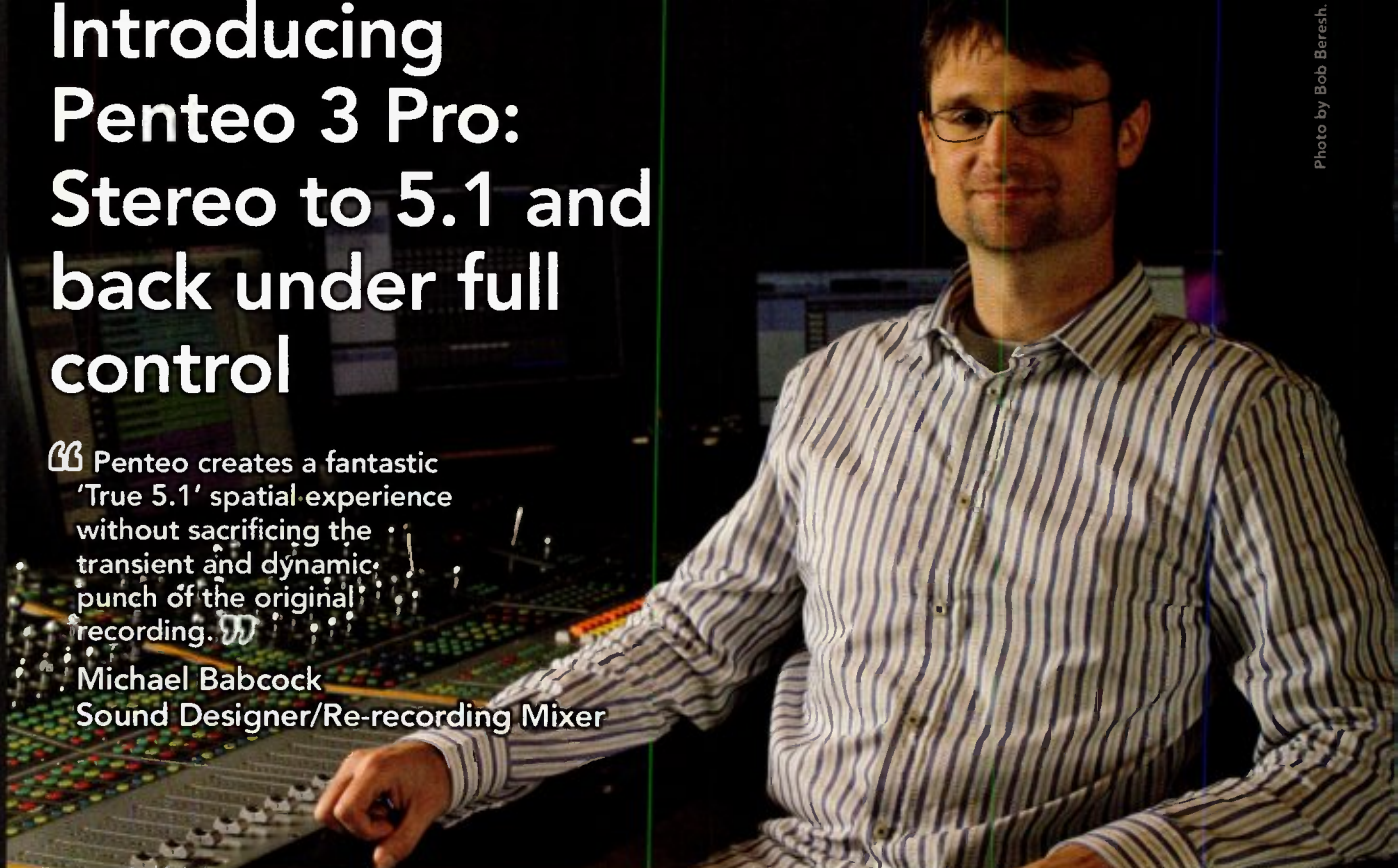


Photo by Bob Beresh.

It used to be that up-mixing stereo to surround meant artificially manipulating the mix using steering, delays, echo, phase shifting, and matrixing. The original mixer's intent was lost, and resulted in a cold digital sound with sonic artifacts. Also, the mix couldn't be down-mixed back to stereo because it was now out of phase.

ADL's new Penteo 3 Pro up-mix plug-in takes a completely different approach because Penteo does not add any artificial sound manipulation to the mix. The result is the warmest and best surrounding sound that remains faithful to the original stereo. Only the Penteo 3 Pro software plug-in creates perfect surround for all stereo media with zero sonic artifacts, the most crisp, discrete center-channel available, and 100% ITU down-mix compatibility to the original stereo. Penteo 3 Pro supports RTAS, VST 2.4, and AU formats, with AAX support coming later this year.

GC Pro is your source for Penteo 3 Pro. Visit www.gcpro.com and get the free demo download now, and start up-mixing stereo to surround the right way!

Six preset automated modes

Input balance controls

Low latency & Help options

Mute, solo & peak display meter

Continuous center & surround fader controls

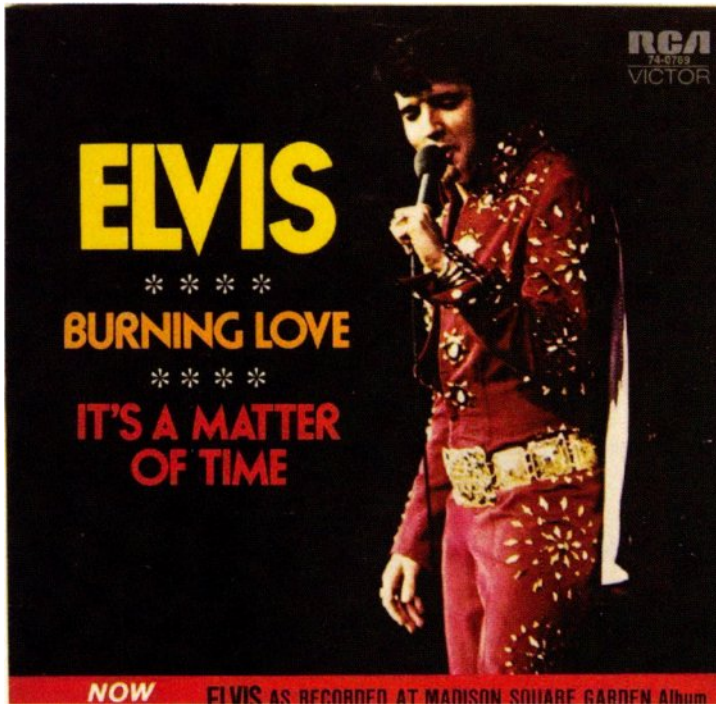
Extensive low frequency controls

www.gcpro.com
877-70-GCPRO

GC PRO

Classic Tracks

By Barbara Schultz



ELVIS PRESLEY “Burning Love”

By the 1970s, the deal had been sealed on many aspects of Elvis Presley’s brilliant career. His formative Sun years were behind him, as were his days as a teen idol. Though he was still revered by legions of fans and fellow musicians, one had a sense that the King was considered past his prime. Case in point: NARAS presented him with a Grammy Lifetime Achievement Award in 1971, when Presley was only 36 years old.

However, Presley was far from done in 1971. He continued to perform for adoring fans and scored pop, country and gospel hits almost right up until his light went out in '77. Those hits came in spite of the fact that the people who traded on Presley’s talent—his label and management—limited the artist’s access to quality material. At the height of Presley’s popularity, they’d instituted a policy that the artist would not record new songs that didn’t come complete with most, if not all, publishing rights. Not many successful composers would agree to what some referred to as the “Elvis Tax.”

What helped Presley keep making popular records was to sing lots of covers, as the reins were apparently looser on songs that had already been cut. Dennis Linde’s rocker “Burning Love” was such a song; it had been

released early in 1972—the same year Presley recorded it—by the great country-soul singer Arthur Alexander with a somewhat retro Stax-style arrangement. Alexander had little success with “Burning Love,” but Presley’s handlers saw that it could be a fit for the King.

In late March of '72, producer Felton Jarvis brought the song, and several others, to recording sessions in RCA’s Hollywood Studios, where Presley often rehearsed or tracked with engineer Rick Ruggieri, an RCA staffer who had come up through the ranks at the facility.

“I started with Elvis in '69 when he was getting ready to do his first Vegas shows,” Ruggieri says. “The first thing he needed to do was to find a band, so they called RCA and said they needed to rent a studio to try out musicians. At the time, RCA was leasing a studio from ABC-TV on Vine Street, a few blocks away from the RCA building on Sunset. I ran a vocal mic—no recording whatsoever, but he would sing and musicians would come in and he would try them all out.”

Some of those same musicians were still touring with Presley and played on the “Burning Love” sessions: guitarists James Burton, John Wilkinson and Charlie Hodge, and drummer Ronnie Tutt. Pianist Glen D. Hardin had joined the group six months after those original auditions, and bassist Emory Gordy was new to the band when tracking started in RCA Studio C on March 27, 1972.

“Every year after '69, Elvis would come into Studio C with those same musicians and rehearse for their next run of Vegas shows, and that’s how Elvis got comfortable with that room,” Ruggieri says. “During those rehearsals, I was privileged to see some of the best concerts you could ever hope to see. Once they had the material down, they’d run through the entire concert front to back two times a night. It was like being an audience of one for the Vegas show.”

The C room was the smallest of the label’s three Hollywood studios, but Ruggieri says, “Elvis liked a smaller, more intimate room, and most of the time we were just cutting the rhythm section and him: Drums, bass, guitars and a piano.”

Ruggieri says Presley always preferred to sing live in the studio with the musicians, whether he was rehearsing or recording. “Most every vocal you ever hear, he actually sang live,” he says. “Some things were added later, but Elvis always sang with the band. There was not a whole lot of isolation possible because it was a small room. You would just put a couple of baffles around a guitar amp, and a blanket over the piano. Elvis always stood in front of the drums.”

Having made dozens of albums in RCA Studio C, Ruggieri knew the studio’s assets and shortcomings. The former included a fantastic collection of Neumann tube microphones—models that were already “vintage” in '72 but weren’t necessarily favored back then.

“They were probably all bought in the '60s,” Ruggieri says. “Not a lot of the guys there used them because they were a pain in the neck. You

SONAR X2

The Professional Touch

Experience SONAR like never before with all new touch functionality. Improve your workflow with intuitive gestures like 'swipe' and 'pinch to zoom' that allow you to navigate through projects using the Skylight User Interface. Transform any touch screen into a virtual pad controller to trigger loops and one-shots using the Matrix View. Or open up a whole new way to mix and interact with plug-ins, the Console View, and ProChannel. Give your music a professional touch with SONAR X2. Touch is available on Intel®-Inspired Ultrabooks™, and other touch enabled devices running Windows 8.

SEE IT IN ACTION AT WWW.CAKEWALK.COM/TOUCH



Available at worldwide music retailers including:



World Radio History

muscle into it. Of the recordings they made during those few days, "Burning Love" was a standout, in part because it was a rocker during a phase when Presley focused mainly on ballads. The song seemed like a return to form, especially with the awesome "Hunk-a hunk-a burning love" parts added at the end—a departure from the Arthur Alexander arrangement, which fades out on the previous line.

Once basic tracking was done, a film crew moved in to tape Presley and band as they rehearsed for their next series of live dates. The "Burning Love" session tapes were transported to Studio B at RCA Nashville, where another of Presley's longtime engineers, Al Pachucki, tracked overdubs, including songwriter/musician Dennis Linde's guitar riffs and intro. Also added in Nashville were vocals by the gospel quartet J. D. Sumner & The Stamps, Presley's then-favorite backing group.

Ruggieri says he doesn't recall whether he or Pachucki ended up mixing "Burning Love." Sometimes projects would stay in Nashville with Pachucki, while others returned to Hollywood to be mixed. If the tracks did come back, Ruggieri would have mixed on the RCA board in Studio C, and made use of the best of the facility's 18 EMT 140 plate reverbs. "We had 18, but only four or five of them were very good," he says. "I would have tried to use plate four on Elvis and six and eight on the instruments."

"Burning Love" was released as a single in August of '72 with the B-side "It's a Matter of Time," a song from day three of the session. "Burning Love" entered the Top 40 and rose steadily until it peaked at Number

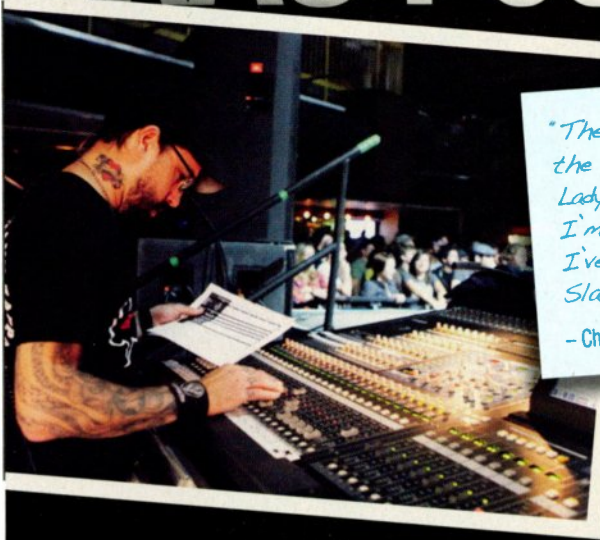
Two in the last two weeks of October. In November, RCA re-released the song as part of the misleading budget-priced album *Elvis: Burning Love and Hits From His Movies, Volume 2*. "Burning Love" was the only hit on this record, which otherwise comprised not very popular film tracks.

"Burning Love" also became a favorite in Presley's live sets, including a killer performance in the groundbreaking satellite TV/radio concert *Elvis: Aloha From Hawaii* (1973), for which Ruggieri mixed the radio broadcast. The engineer continued working with Presley for a couple more years, through the *Today* album (1975). He left RCA and went independent that same year, going on to engineer albums for Joan Baez, Neil Diamond, Al Jarreau, Kenny Rogers and many others. He remained an in-demand recording/mixing engineer through the 1990s, but these days he's more focused on music for films, such as *The Muppets* (2011) and a sequel that's expected later this year.

Presley, of course, died at home in Graceland, after suffering cruelly from a variety of physical ailments that had been aggravated—if not caused—by chronic drug abuse. But Ruggieri remembers Presley as he was in the early '70s—not necessarily at the top of his game, but still a truly great artist with undeniable magnetism. "Let's put it this way: When the man walked in the room, even if you weren't looking, you knew he was there," Ruggieri says. "He had that presence, something no one can describe."

Read a few more of Rick Ruggieri's memories of recording the King at mixonline.com. ■

CRAS People Make it!



"The CRAS Student Services department set me up with the best opportunity ever! My internship was at Electric Lady Studios... that opened so many doors! Right now I'm house engineer at Ram's Head Live in Baltimore, where I've worked with acts like Tab Benoit, Little Feat and Slash's Apocalyptic Love tour. CRAS was awesome!"

— Chris Petro — FOH Engineer, Ram's Head Live, Baltimore, MD

Wanna BE CRAS? Contact us to learn how you can become skilled in studio recording, live sound engineering, production/post production for film and television, and video game sound. **Apply Today and BECRAS!**



SCAN HERE for a video of what it's like to BECRAS!



CRAS[®]

CONSERVATORY OF
RECORDING ARTS & SCIENCES

1.888.604.4075 | CRAS.edu 2300 East Broadway Road, Tempe, Arizona 85282

Consumer information available at: www.audiorecordingschool.com/consumer.html

Live



SFJAZZ CENTER

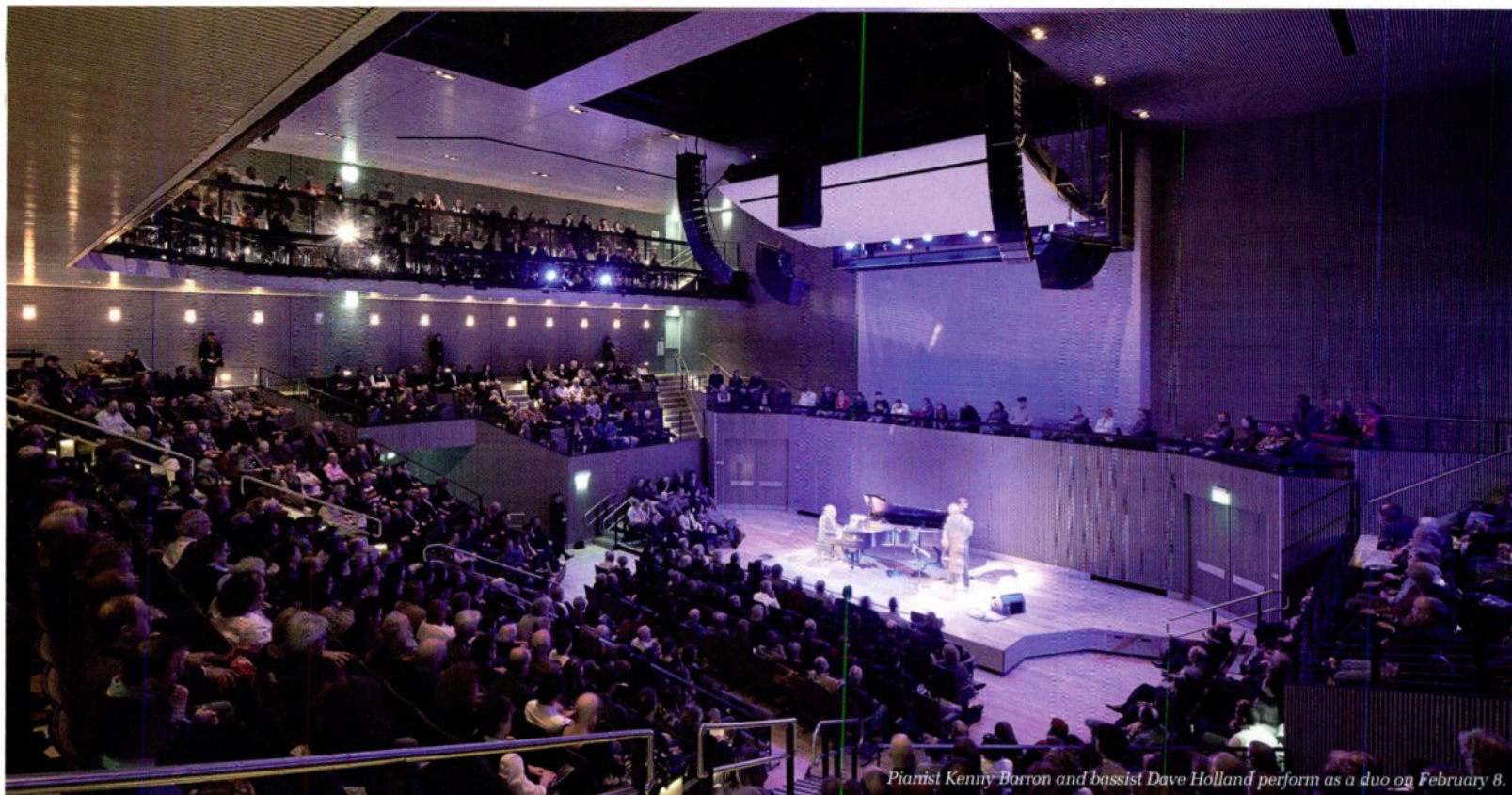
By Matt Gallagher 29

NEWS & NOTES

By the Mix Editors 32

ALL ACCESS: SOUNDGARDEN

By Steve Jennings 34



Pianist Kenny Barron and bassist Dave Holland perform as a duo on February 8.

Photos: Tim Griffiths

SFJAZZ CENTER

A High-Tech Home for Jazz Music in San Francisco By Matt Gallagher

Billed as a “sanctuary for jazz,” the SFJAZZ Center (sfjazz.org), located only blocks from San Francisco’s City Hall, received national press coverage and rave reviews when it opened on January 23, 2013, with a gala star-studded concert emceed by Bill Cosby. Purpose-built from the ground up for presenting jazz, SFJAZZ Center is the culmination of a vision developed by the SFJAZZ organization, which for 30 years presented the SFJAZZ Festival in rented venues. SFJAZZ founder Randall Kline says the new center is “the first freestanding building for jazz in the country.”

The two-story 35,000-square-foot facility

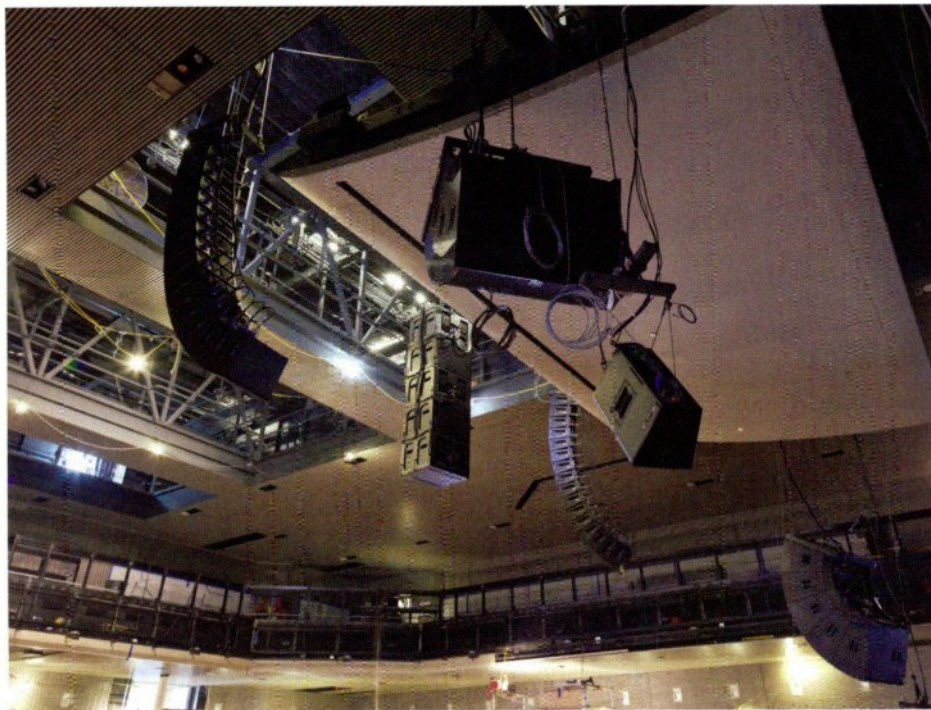
stands at the corner of Franklin and Fell Streets on the former site of an auto-repair shop. Its centerpiece is the Robert N. Miner Auditorium, which seats up to 700 in an amphitheater setting that’s designed to feel and sound as intimate as a small club. The main hall has an Avid Venue Profile console at front-of-house and an Avid SC48 for monitors. On the ground floor, the Joe Henderson Lab seats up to 80, hosting concerts as well as workshops, rehearsals, clinics and lectures for the organization’s Education Department. Practice rooms and a digital lab are also available. Every room is connected via a cabling infrastructure that wires the building for audio and video recording and broadcast.

Designing and building SFJAZZ Center was a completely collaborative process. Acoustician Sam Berkow, the founder of acoustical consulting and design firm SIA Acoustics (sia-acoustics.com)—along with his colleagues Jeff Friedlander and Adam Schulman—worked closely with Kline, architect Mark Cavagnero, and theater designer Len Auerbach to define the bowl-shaped auditorium’s dimensions and develop optimal acoustics to coincide with optimal sight lines for both musicians and audience—acoustics that serve the nuances, dynamic variations, improvisation and interaction that are particular to jazz music.

“It’s rare that a client tells you, ‘We want to

The acoustic canopy and Meyer Sound loudspeaker system designed by SIA Acoustics

Sam Berkow, founder of SIA Acoustics



Photos: Henrik Kam

aim for greatness.” Berkow says. “Randall Kline has a vision where technology serves the music, and not vice versa. [SIA Acoustics] got involved early on, which we feel is always the best way to do it. It’s almost impossible to solve the problems once the rooms have been designed. We feel very strongly that successful acoustics are built into the design of a room, not done to a room. Once they found a site, Randall brought us in to work with the architects to talk about their needs: how big a stage do you need, how are we going to do seating in a way that’s acoustical. Audiences want uniform sound.”

Berkow devised a system of variable acoustics to aid in this goal. “Behind all these wooden slats are a series of different treatments that redirect, scatter and absorb sound,” he says. “The upstage wall has a series of sound diffusers. We were trying to do a much smoother, softer type of reflection—much more advantageous for microphones and musicians. When they bring in louder bands with lots of stage monitors, we can drop a series of acoustical banners behind the stage.”

A key component in the auditorium’s acoustical design is a rectangular shaped diffusive acoustical canopy that is suspended above the stage. Constructed of steel tubing and measuring 25 feet wide and 15 feet deep, it holds 68 RPG Diffusers that measure 2x2 feet each. The tiles are each positioned 90 degrees relative to one another to form an uneven surface.

Sound that travels upward from the stage is then diffused, which “makes the stage much acoustically cleaner,” Berkow says. “Secondly, [the canopy] is tilted at 14-and-a-half degrees, so it’s pro-

jecting sound very uniformly to almost all the seats in the house. It gives you that sense of envelopment. Lastly, it holds a 24-foot-wide video screen that can be dropped down.” An 8-by-8-foot hole in the canopy’s middle allows sound to fill the area above the canopy to “use all the cubic volume in the room to create the most uniform sound we could,” Berkow says.

“In every seat in that hall, you’re listening to the sound from the stage, and the sound system is used to augment that sound, not overwhelm it,” Berkow notes. “If you turn the P.A. off in a rock venue, the sound goes away. In a jazz venue, the use of a sound system is done with great discretion.”

For SFJAZZ, SIA Acoustics specified a Meyer Sound system comprising 32 MINA loudspeakers configured in two line arrays of 16 speakers each positioned at stage-left and stage-right; a center cluster of five 500-HP subwoofers, with three firing forward toward the audience and two firing backward to form an electronically adjusted cardioid array that creates a null onstage to lessen the low-frequency energy there; eight JM-1P arrayable loudspeakers; and four MID-SM loudspeakers that are used as front-fill. “We use two Galileos [616 Loudspeaker Management Systems] to do all the equalization and delays,” Berkow says. “And we use their Remote Monitoring System to make sure each speaker is performing properly.”

Berkow adds that the venue’s primary FOH engineers, Jeff Cressman and Masonari Yura, “have really embraced the philosophy of the system, which is to use the sound system primarily to provide tonal balance and uniform coverage, rather than just increasing volume.”

“The sound system smoothly covers the transitions from the close seating all the way to the top floor,” Cressman says. “The zones allow for a very natural experience up close where you don’t want to be distracted by the P.A., to the areas where the power of the sound system can make up for the drop-off of the acoustic energy from the stage. The room’s warmth by controlled design of absorption and diffusion makes it a joy to mix in.”

“Having built a number of venues for jazz, including Jazz at Lincoln Center’s facilities and the Jazz Standard in New York, among many others, I’m really happy to be involved with these projects,” Berkow says. “This one seems to be off to such a great start.” ■

more online



See more photos of the SFJAZZ Center, and read more about its acoustic design and sound system. mixonline.com/C42013



ACADEMY of ART UNIVERSITY®

FOUNDED IN SAN FRANCISCO 1929 BY ARTISTS FOR ARTISTS



**STUDY ONLINE OR IN
SAN FRANCISCO**

Acting*
Advertising
Animation & Visual Effects
Architecture
Art Education
Art History
Fashion
Fine Art
Game Design
Graphic Design
Illustration
Industrial Design
Interior Architecture & Design
Jewelry & Metal Arts
Landscape Architecture
Motion Pictures & Television
Multimedia Communications
**Music Production & Sound
Design for Visual Media**
Photography
Visual Development
Web Design & New Media

ENROLL NOW

EARN

**YOUR AA, BA, BFA, MA, MFA OR
M.ARCH ACCREDITED DEGREE**

ENGAGE

IN CONTINUING ART EDUCATION COURSES

EXPLORE

PRE-COLLEGE ART EXPERIENCE PROGRAMS

WWW.ACADEMYART.EDU

800.544.2787 (U.S. Only) or 415.274.2200

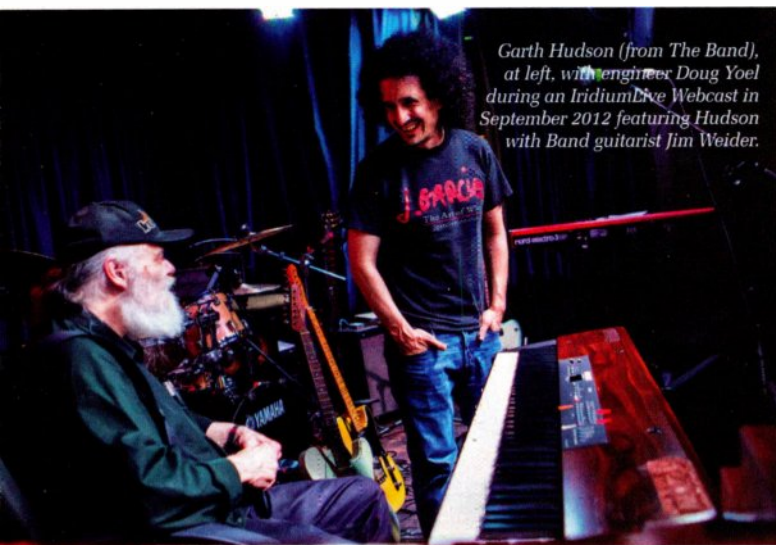
79 NEW MONTGOMERY ST, SAN FRANCISCO, CA 94105

Accredited member WASC, NASAD, CIDA (BFA-IAD, MFA-IAD), NAAB (M.ARCH)

**Acting degree program is not available online.*

Visit www.academyart.edu to learn about total costs, median student loan debt, potential occupations and other information.

THE IRIDIUMLIVE LABEL



Garth Hudson (from The Band), at left, with engineer Doug Yoel during an IridiumLive Webcast in September 2012 featuring Hudson with Band guitarist Jim Weider.

Photo: Arnie Goodman

The Iridium jazz club in Midtown Manhattan presented Les Paul every Monday night over the final 12 years of Paul's life, among other artists. Following Paul's passing in August 2009, the club continued honoring his legacy with Les Paul Mondays, featuring top guitarists performing with the in-house Les Paul Trio. In turn, this weekly series inspired the club's owners to seriously invest in high-quality live recording to preserve and share these recurring once-in-a-lifetime performances.

In 2010, Grammy Award-nominated producer/engineer Doug Yoel was brought in to develop and oversee IridiumLive (iridiumlive.com), a label imprint dedicated to live production at the club. IridiumLive launched its first commercial album releases in September 2012. It also offers live Webcasts that stream on its Website and Facebook page.

"It's a turnkey operation for an artist to make a document, audio or visual, for their use or for our mutual marketing," Yoel says. "We can sell immediately after the show, we can physically and digitally distribute [via Amazon, iTunes, and other North American music retailers via eOne Distribution], and we can do multi-camera HD shoots." Thus far, IridiumLive has released recordings from Nels Cline, Donna Jean Godchaux Band, Stanley Jordan, Gregg Rolie, and more.

On the audio side, Yoel says, "We have a split snake so that we can have independent control of front of house and the control room. We have [Euphonix] Artist Mix and Artist Control [consoles], which we use for all of our live mixing, and for some of our post. They are fantastic, [providing] lots of control for the small space we have for our control room." Yoel records to an expandable 24-channel Pro Tools HD system through Focusrite OctoPre mic preamps, using Shure, Neumann, Sennheiser, AKG, and Stageworks mics, as well as four RØDE NT5s that are mounted in the ceiling in the front and the back of the room. Two alternating FOH engineers, Rich Freeman and Alex Beaulieu, mix the stage on a custom 24-channel Midas Venice console; The Iridium has a Meyer Sound P.A. system. — Matt Gallagher

LINDSEY STIRLING LIVE



Photo: Tony Felgueiras

Lindsey Stirling almost never stops moving. Uniquely combining her own virtuosa violin playing with live keys and drums, and prerecorded tracks, the America's Got Talent finalist dances almost continuously as she plays.

Mixing the 44-date U.S. tour, which is selling out thousand-plus seats nightly, is FOH Rob McWhorter, who's been out with Stirling, drummer Drew Steen and keyboardist Jason Gaviati since September. Performance Audio of Salt Lake City, Utah (performanceaudio.com), put together a compact package that includes Stirling's Shure PSM 1000/UHF-R wireless rig, an Avid Profile board and 52 channels of Pro Tools HD2 so McWhorter can record every show.

"Her YouTube ties have been really big, and we have a videographer on the road, so we thought we better make sure we always have audio," McWhorter says. "We never know what we're going to use."

McWhorter, a partner in studio Why Sound (Logan, Utah) when he's not on the road, uses an onboard Eventide plug-in bundle, and particularly likes the reverb: "I can do a long reverb tail, but it doesn't feel cheesy or wet," he says. "It doesn't feel like an effect; it just feels real and big."

McWhorter also handles the monitor mix on this high-energy tour; he has all the musicians on JH Audio JH16 Pro in-ears. "When Lindsey was out previously doing her solo shows, that was a little bit of a 'ghetto' scenario with cheap consumer headphones," he says. "Now she's on great, true in-ears, but it's a big job mixing FOH and monitors, so I use a lot of snapshot recalls for the in-ear mixes. FOH is not recalled, though. It's live, and it's different, every night." —Barbara Schultz



LISTENFORMORE



Audio-Technica's acclaimed ATH-M50 studio monitor headphones deliver natural response throughout the entire frequency range, without hyping or diminishing sounds along the way. Wherever your passion for music leads you, listen for more. audio-technica.com

FEATURES

- Now offered in a new limited-edition red, in addition to the original black and white models.
- Natural response ideal for professional monitoring and mixing
- Collapsible design for easy portability and convenient storage
- Proprietary 45 mm large-aperture drivers with neodymium magnet systems
- Closed-back cushioned earcups for isolation
- Adjustable padded headband for comfort during long mixing/recording sessions

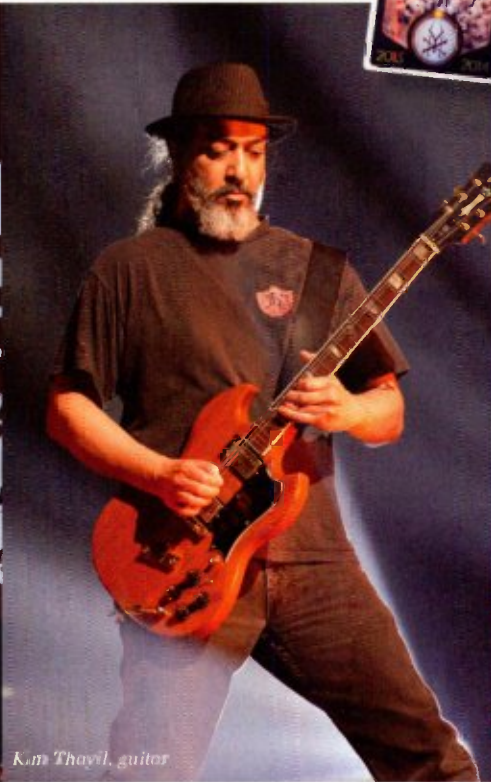


audio-technica
always listening

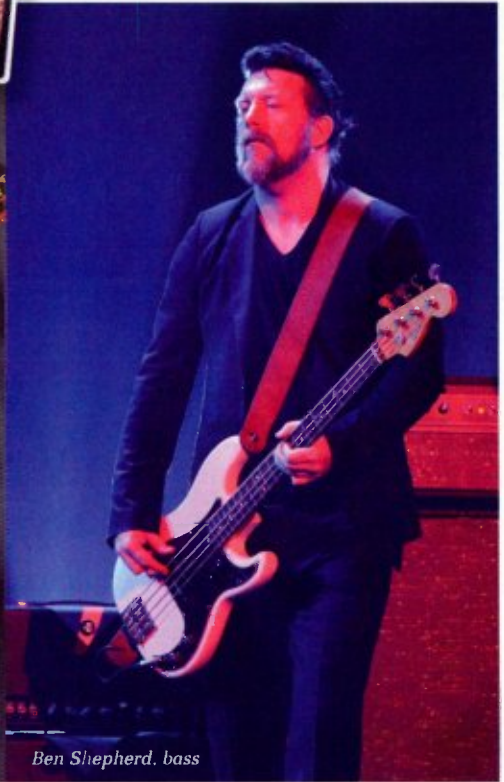
SOUNDGARDEN



Chris Cornell, vocals and guitar



Kim Thayil, guitar



Ben Shepherd, bass

In the midst of their ongoing intimate-theater tour supporting their *King Animal* release, Soundgarden stopped by in early March for two sold-out nights at the Fox Theater in Oakland, Calif. Full monitor and front-of-house control systems were provided by Rat Sound; local venues supplied the P.A. system.



FOH engineer Ted Keedick, at right, with **system tech Jason Brandt** at the Avid Venue Profile System. "The footprint is small, navigation is simple and I really like its seamless integration with Waves plug-ins and Pro Tools," Keedick says. "I use the onboard DigiRack Mod Delay 2 for most of my vocal delays, and ReVibe for drums and some vocal reverbs, if needed. As for Waves, I use the RCompressor, Renaissance Axx and the C4 is great! It can really help shape and control whatever you use it on. The only outboard gear we were carrying was a Dolby Lake Processor for system EQ and alignment.

"The two-plus hour set list is different each and every night, and there is a lot of power coming from that stage!" he continues. "I just keep my ears open and my hands on the desk, pay close attention to my cues, and make sure we are hearing everything that's being played and all that is sung."



Drum tech Neil Hondt says that Matt Cameron's kit mics comprise AKG 414s for overheads [inset photo], Shure SM81 on ride, the new clip-on Shure 98s on toms, Shure SM57 on snare, the blend of Shure 52 and 91 on the kick drum, and an AKG 451 on hi-hat.



"Ben's rig consists of two amps, a Mesa M6 Carbine and an Ampeg SVT-VR," says **bass tech Nathan Yaccino**. "The Mesa has a clean, unaffected signal, while the Ampeg is a dirtier, more saturated sound with all his pedals running through it. We have been using a Shure Beta 98 on the Ampeg 8x10 cab. People ask about it all the time

because typically they are used on drums. Dave Rat, Soundgarden's previous FOH engineer, has been using those for bass miking for a while. Although Dave isn't running FOH for them anymore, we've kept that mic. It sounds good!

"Half of Ben's pedals live on his pedalboard and the other half live on a tray in a rack behind his amps," he continues. "The centerpiece of Ben's whole rig is a Radial JX44 AirControl [pictured]. Everything in his whole rig is routing either to or from it."



Monitor engineer Martin Strayer, pictured at right with **system tech Casey McDaniel** of Rat Sound, also mixes on an Avid Profile and says he tries to limit his plug-in use, though he mentions using a Bomb Factory plug-in on Chris Cornell's vocal as well as a long delay. The band carries the d&B audiotechnik wedges, too.

"We're using a Telefunken M80 for Chris' vocal mic," Strayer says. "It's got the best rejection and sounds great! I have been doing this a long time, and I can truly say this is the best bunch of guys I've ever worked with. Tapping out Chris' long vocal delays, and blending them in his ears... super fun. I've never enjoyed mixing so much."

Kim Thayil's **guitar tech** is Soundgarden's Equipment Manager, **Josh Evans** (not pictured). Thayil's Mesa Tremoverb combo and 90-watt Mesa Electradyn 4x12 cabinet setup are miked with Shure SM 57s (pictured). His footpedal gear includes T-Rex Tap Tone delay, Ibanez chorus, Electro-Harmonix Micro Pog, Hughes & Kettner Rotosphere, Dunlop/CAE wah, boost and distortion, and a Providence Pec-2 routing system (pictured).



Chris Cornell **guitar tech Stephen Ferrera-Grand** says, "Chris Cornell's backline has been going through some changes. At the Fox, his backline was two Savage Rohr 15 2x10-inch combo amps and one Divided By 13 FTR 37 head and 2x12 cabinet [pictured inset]. Fred Taccone is the amp designer, builder and owner of Divided By 13, and we really appreciate his products and support. We have his amps miked with standard Shure SM 57s.





the
**FLAMING
LIPS**

*Found Sounds Become Musical
Foundation for 'The Terror'*

By Barbara Schultz

When The Flaming Lips need a little jolt, they simply turn things upside down, or inside out. It not always easy for an already out-there group to find somewhere to go, to keep the record-making process exciting for 30-plus years. But these guys keep raising the bar on radical reinvention, for listeners and for themselves. The latest stage in the band's evolution is *The Terror*, an album of songs inspired by specific sounds.

"As songwriters, we're always mutating and evolving," explains multi-instrumentalist/composer Steven Drozd. "We got to a point where it felt like we had a lot of music that was based on chord progressions. Then we got into deeper harmonic structures, and on the last record [*Embryonic*], we were doing these jams; they weren't songs that we wrote, they were jams that we shaped into songs.

"With *The Terror*, we'd gotten to a point where we were tired of writing songs and then figuring out what the sound would be for the songs. We decided to go the other way. We'd find a sound—whether it was a synthesizer or a refrigerator or whatever—record the sound, and then try to make a song from the sound."

For 15 years, the Lips have found an enthusiastic collaborator in engineer/producer/studio owner Dave Fridmann (Neil Finn, MGMT, OK Go), who records and mixes in his studio, Tarbox Road Studios (tarboxroadstudios.com), in New York state. "A song could start with somebody saying, 'I'm really happy right now and I don't know why. Oh, it's because of the sound of the refrigerator running,'" says Fridmann. "Then, it would be, 'Okay, let's start building a song around that.' We'd mike up the refrigerator and start to develop a rhythm based upon what that was doing. It would snowball from that.

"There are a bunch of different songs on the record where we were trying to do one thing, but it turned into something else," he continues. "Like we were trying to create a guitar loop, and someone accidentally plugged into a keyboard instead, and the level was way too hot, and one of the guitar amps would start freaking out, and then it was a manic rush to get a microphone on that amp before it blows up. Sometimes it would be like, 'I don't know what we're going to do with that, but we're going to do something with it, because that's the weirdest sound we've heard in a while. And before you know it, we're working on lyrics.'

"Sometimes the sound tells you what the song should be about," says Drozd. "There's so much in a WASP mono synth running through an old analog delay or a shitty old amp. That sound could be telling you something, without you having to write chords or anything. This was really fun for us. I felt like we were doing something new and different for us."

It would seem that this "process" of song invention could result in a

collection of random, disparate tracks, but that's not the case. *The Terror* is out there, for sure, in a spacey, psychedelic way, but the songs coalesce rhythmically and sonically because the bandmembers made a conscious decision to repeat certain musical elements they loved, to unify the songs and to keep some great sounds going. One of the most central pieces during composition and recording was the creepy, retro-futuristic sounds of an Electronic Dream Plant (EDP) WASP monophonic analog synthesizer.

"Instead of opening something like [Propellerhead] Reason where you have literally thousands of sound options, we'd turn on the WASP, and no matter what you do with it—all the cool things it does—it's that instrument," Drozd says. "These old mono synths have such nice characteristics. We used it on almost every track, and if we didn't have it on a track, we would add a little bit just to tie the songs together."

The WASP, a gift to the band from Sean Lennon, had actually become a bit of a museum piece. "[Sean] was like, 'You guys like this thing? Really? You can take it.' We took it home and just coveted it," Drozd continues. "We had it sitting in a corner, but Wayne [Coyne, Flaming Lips frontman] was like, 'Let's take this f***king thing out and use it instead of staring at it.'

"I would say there were four keyboards that shaped the whole record, and that's how we did it instead of being all over the place with acoustic guitar on one song and electric guitar on another," Drozd adds. "There's actually very little guitar on the whole record. We decided to keep it all in the same basic area." Other keys that played big parts on *The Terror* were a Yamaha organ that Drozd

purchased on eBay, and Fridmann's Yamaha CS-60 and ARP 2600.

"You can plug any one of those things in, and it will sound like a time machine," Drozd says, "like some future a thousand years from now when we're all living in space—a super lo-fi, sci-fi movie kind of thing."

Capturing the Lips' sessions involves more perversion of the tried-and-true, but Fridmann is in for all of it. This time out, the band tracked mainly in Tarbox's Studio B, a newer room that gives Fridmann and his clients additional flexibility.

"Tarbox is built in a former home where we changed around the way it was set up," Fridmann says. "The house's original master bedroom/bath combination are my control room, and the living room—with a big, open cathedral ceiling—is our main recording space. But acoustically, before we built the B room [in 2010], if somebody was in the house making music, we all knew they were making music. That can be a good thing with the Flaming Lips, because everybody's always involved in everything that's going on. But now, with the new building, we have a space where bands can be rehearsing or writing while I'm mixing; they can make all





Wayne Coyne and Steven Drozd using the Electronic Dream Planet WASP and Yamaha CS-60 synths, respectively.

Photo: Dave Fridmann

“But with these guys, we just have a bunch of microphones set up, not in any particular order and not in any particular room. The drummer and bass player might play with one microphone somewhere between the amp and the kick drum, and that’s the drum sound and the bass sound. We’re done.”—Dave Fridmann

the house, and place microphones at any position or distance they like. For example, setting up a conventional drum kit—with close mics, overheads and room mics—just isn’t done.

“In fact, they won’t allow that,” Fridmann says. “I can use DPA mics from afar if I’d like, or use STC ball and biscuit mics from across the room. That’s fine. But no conventional miking techniques were utilized in the making of this record. Not that I’m against it. I use more standard setups with other bands all the time. But with these guys, we just have a bunch of microphones set up, not in any particular order and not in any particular room. The drummer and bass player might play with one microphone somewhere between the amp and the kick drum, and that’s the drum sound and the bass sound. We’re done.

“Our technician, Greg Snow, has made and modified lots of different microphones—military ones and Motorola dispatch microphones—and used

the noise they want and I can’t hear it.”

“In 2011 when we were working on this 24-hour song [“7 Skies H3”], we had three studios going,” Drozd recalls. “There was the main room where Dave would be assembling the whole thing and recording. I would be in Studio B working on other parts, and then Wayne or Michael [Ivins, bassist] or Kliph [Scurlock, drummer] would be in a third room. The studio can see a lot of activity at the same time.”

In addition to Studios A and B, Fridmann says that every room at Tarbox is wired for tracking, and that the band will record in any corner of



The Focusrite for your iPad

iTrack Solo provides the best solution for recording your instruments and vocals using an iPad. Featuring a Focusrite microphone input – developed with over 25 years of professional audio experience – and an input to record directly from electric and bass guitars, iTrack Solo is the perfect companion for any singer-songwriter wanting to take their demos to the next level.

With the very best in digital audio technology encased by a rugged aluminum unibody chassis, iTrack Solo will capture your sound with pristine quality. At Focusrite, that’s all that matters – Sound is Everything.

iTrack Solo is also fully compatible with PC and Mac computers.

www.focusrite.com/iTrack-Solo

iPad iPhone iPod iPod classic iPod nano iPod shuffle, and iPod touch are trademarks of Apple Inc. registered in the U.S. and other countries.



Microphones



Guitars



Speakers

Focusrite®

Dave Fridmann in Tarbox Road's Studio B.



Photo: Mary G. Fridmann

different circuitry. I don't even know what's in there, but they sound amazing! You can record from across the room because there's some weird built-in compressor already in there. So when the Lips say, 'We're not going to go sing into that microphone. We're going to sing over here,' we can do it, and we end up with some very unusual sounds."

"In this day and age, it really is easy to record a great-sounding guitar or a great-sounding drum kit, especially with someone like Dave Fridmann, who's just at the top of the field," Drozd adds. "So part of the fun for me is to bring Dave some shitty sounds. One of the songs, 'You Lust,' starts off with a couple of us in a room playing synth sounds into Wayne's iPhone. Dave took that off the iPhone, compressed and EQ'd it, and there you go. It's the beginning of a song."

Most of the tracks were recorded to Pro Tools HD and mixed on Fridmann's Otari Concept Elite board, but Fridmann points out that changes and new sounds are on the table at all times.

"Even when we used to track to 24-track analog tape," he says, "we'd fill 23 tracks, and then with the 24th track, someone

would say, 'That's what we should have been doing all along,' and we'd throw everything out and start with this new thing. They're always following their instincts to the song, and we might write a set of lyrics and do background vocals and overdubs and figure out effects, and then throw it all away and start with some other new, weird sound that we thought of and recycle the bridge of another song. It's a very nonlinear process all the way through."

"What's great about Dave is that he's like us, in that he's been at this a long time, but still, to this day, he's as curious about music as an 18-year-old," Drozd concludes. "So when we get together we're on the same page, and there's a lot of energy and a lot of excitement that maybe a lot of bands our age don't have. Dave has such a genius mind for this kind of thing. Some people hear music and just imagine chords and melodies. When Dave is listening he's always analyzing. He's thinking about how it can work sonically. He helps with arranging. He can help shape a melody. We've been friends for so long that he's like a bandmember." ■

Tonelux

From the Mind of Paul Wolff

500 Series

EQ5P Equalizer

EQ5P

- 500Hz-21kHz Frequency/ Boost and Cut**
Parametric band Proportional "Q" with Broad to Narrow bandwidth (3 octave) sweep with shelving control button and +/- 15 dB boost and cut
- 500Hz-21kHz Frequency/ Boost and Cut**
Same as above, but button switches from Proportional "Q" to a fixed "Q" of 1/3 oct
- 50Hz-3kHz Frequency/ Boost and Cut**
Can switch from Proportional "Q" to a fixed "Q" of 1/3 oct
- 16Hz-1kHz Frequency/ Boost and Cut**
Can switch from Proportional "Q" to a fixed "Q" of 1/3 oct

All Tonelux products incorporate discrete Class A op-amps with a custom output transformer giving Tonelux its signature sound!

TX5C Compressor



MP5A Mic Pre



V4 + X4 = 8 Slot Option



Made in the USA



www.tonelux.com

Tonelux is a part of the PMI Audio Group
(310)323-9050



THE 'REVOLUTION' WILL BE TELEVISED

By Matt Hurwitz



LIFE IS FULL OF NOISE, MOST OF IT PRODUCED BY ALL THINGS ELECTRIC. BUT WHAT DOES A WORLD WITHOUT ELECTRICITY SOUND LIKE? FANS OF NBC'S REVOLUTION HEAR IT EVERY WEEK—THOUGH THEY HAVE TO USE THEIR ELECTRIC TELEVISIONS TO FIND OUT.

Created by Eric Kripke (*Supernatural*) and produced by Warner Bros. Television and J.J. Abrams' *Bad Robot*, the show takes place 15 years in the future, following an unusual—and apparently permanent—worldwide blackout, in which all forms of electricity cease to exist. No lights, computers or telephones; no cars, trains or planes, regardless of whether they were moving when the blackout occurred, as seen in the show's apocalyptic pilot episode (and in flashbacks throughout the series).

The show is mixed at Todd-AO Burbank Stage E by veteran re-recording mixers Yuri Reese and Bill Smith. Editorial and sound design are done by Atomic Sound Post Pro-

duction Services, under the guidance of supervising sound editor and president Tom deGorter, and co-supervising sound editor Brett Hinton.

electronics throughout the air. Strip those things away, and you're left with a really interesting sonic landscape." The usual ambience heard throughout our daily lives—and on every other television show—isn't there. "We had to break it down," notes deGorter, "Okay, what elements are not there? Of course, no electronics. No humming or buzzing. Nothing other than natural ambiences: winds, birds, crickets, nature."

Those sounds, though, aren't heard the way we would hear them out in the woods today, notes series associate producer Geoff Garrett. "We're in a world that's been 15 years without power, so nature is taking back the



Atomic Sound's Brett Hinton, co-supervising sound editor, left, and Atomic Sound president/co-supervising sound editor Tom deGorter.

planet, and it's more accentuated. The human population would have been decimated by the blackout, so there are fewer people. The natural world is more pronounced, maybe even a little over-exaggerated. Birds and cicadas are heard more frequently because you have more of them."

Following a weekly spotting session, at which specific sounds are identified, as well as ADR, backgrounds and other effects,

duction Services, under the guidance of supervising sound editor and president Tom deGorter, and co-supervising sound editor Brett Hinton.

planet, and it's more accentuated. The human population would have been decimated by the blackout, so there are fewer people. The natural world is more pronounced, maybe even a little over-exaggerated. Birds and cicadas are heard more frequently because you have more of them."



The incredible music captured in Trident Studios still resonates today. Trident Audio Developments continues its rich heritage by designing equipment for today's forward-thinking engineer with roots in the past. Legendary tone in modern equipment.

HG3



Our Active Stereo Close Field Monitoring System, developed in conjunction with Harvey Gerst, directs the sweet spot to your preferred listening position.

A-Range

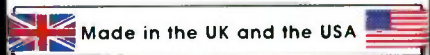


Designed to its original specifications, the Trident A-Range remains the sound of rock. Own a piece of rock history today.

Series 80B®



- Classic four band equalizer, identical to the Trident Series 80® console
- Transformer-coupled mic preamp and separate electronically balanced line input amplifier
- Pristine signal path of exceptional quality, for subtle control or adding Trident's signature color



www.trident-audio.com

Trident is a part of the PMI Audio Group (310)323-9050





Atomic's lead sound designer, Mark Allen, and sound effects editor Patrick O'Sullivan begin creating the more unique sounds for each episode. These often include more subjective elements, meant to invoke a particular emotion for the viewer, without being obvious about it. "I know these guys can do the old 'see a car, cue a car,'" Garrett explains. "But if there's a moment where something's supposed to be subjective or unusual, that gets addressed first."

convey the emotional charge."

After seeing footage of the plane cartwheeling on screen to its destruction, Hinton got the idea for more of a *whoosh* air-type sound. "I duct taped a bunch of long ribbed plastic tubing to a giant fan and put a microphone at the other end," he recalls. "It made a high-frequency whistle-y sound coupled with a rush of air, creating a weird Doppler effect. It's chilling, in the same way as the image we're seeing."

The end of the 10th episode, for example, begins with an odd *whoomp whoomp whoomp*. "We don't reveal right away that it's a helicopter, which would be a shock to our audience. We want the characters to be going, 'What is that?' and make it confusing. So in spotting, we note that it will require more of a sound design approach." Those elements are layered together from Allen's vast existing sound library, as well as new sounds created in the studio.

Also in the pilot, when the power stops, jet aircraft engines also stop, leaving planes simply falling out of the sky. "Since the engines aren't running, the traditional sound of the whine of the deceleration of the jet doesn't happen; there's no power to run them," deGorter explains. "There's no rumble, none of the sounds you expect to hear. We're constantly riding a fine line between realism and sounds that



KOREA INTERNATIONAL BROADCAST
AUDIO & LIGHTING EQUIPMENT SHOW

KOBA 2013 www.kobashow.com

ORGANIZERS KOREA E & EX INC. / THE KOREAN BROADCAST ENGINEERS & TECHNICIANS ASSOCIATION
CONTACT KOREA E & EX INC. TEL. +82-2-551-0102 / E-mail. koba@kobashow.com

2013.05.13-16
COEX, SEOUL

NABSHOW
Where Content Comes to Life

VISIT US at
Booth Number : C02455

KOBA, Asia Hub of
New Media industry!

- Largest scale ever!
- New paradigm combined smart-trends and contents
- Over 830 exhibitors from 35 countries including 170 Korean manufacturers
- 50,000+ trade visitors from 60 countries



The show has plenty of swashbuckling, old-fashioned brutal fight scenes as well, represented by an interesting collection of weaponry, including swords, muskets and the like. "It's really like a period piece," Smith says. Adds deGorter, "They're all weapons that you don't use in the typical cop show of today."

deGorter says that Allen, however, has a talent for finding the right swords. "These aren't your typical pirate swords," he says. "They're shorter, so they're not going to sound as big and shing-y. And Mark builds the sounds of the swords out of multiple sounds, layered on. And they can vary depending how bad the bad guy is and who's more powerful."

"When a sword slashes somebody here, it's more than just the shirt being ripped," adds Garrett. "It's the spray of the blood afterwards. We're playing for the reality of, 'This is a real world, and it's a dangerous world.'"

While many sounds are added, some modern sounds have to be removed from the production track in order to maintain the "no power" illusion. "They're shooting in the real world," Reese says. "If dialog's got a car in it or some kind of buzz or hum, you can't have that." Reese will either attempt surgical repair using a Spectral Repair plug-in or, worst case, the line can be re-recorded in ADR. Conversely, if Reese receives a production track from dialog editor Jay Levine that contains a good sound effect from the set, he says, "I'll pull that and pipe it over to Bill to use as a proper sound effect."

Smith's style of mixing sound effects typically involves a lot less EQ adjustments than most mixers. "I'm not a mixer that relies on EQ first, unless of course the sounds are happening behind a door or in the next room," he explains. "Mark, for instance, cuts

really great sounds, built out of a lot of elements. I've got beef and top end and clarity if I need it. I prefer to layer the elements he provides to get the desired effect, rather than turning an EQ knob."

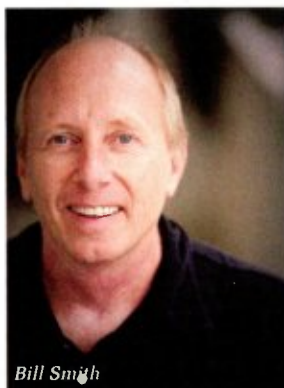
Music is sent to music editor Brian Bulman in two parts. Composer Christopher Lennertz will deliver eight sets of quad stems, while four sets of quad stems of other live instruments will arrive from the Warner Bros. scoring stage. "It's left, right, and left-surround, right-surround," Smith explains. "The music stays out of the center for the dialog, guns and action stuff, so it sounds nice and wide."

Editorial source material is uploaded from Atomic to the Todd-AO server via Aspera high-speed file transfer software, then downloaded to local computers, from which Smith and Reese will build their sessions.

The duo mix on an Avid D-Control, with a two-way JBL array and Bag End subs behind the screen. Reese will mix dialog, music and ADR/group, first concentrating on dialog. "It can't be too low or too high," he states. "In television, you hear a line once,

and it's important that you hear every line. You're not in a theater; everybody's house is different. Even if the TV is low, you need to hear the dialog and not miss a thing. So that needs to be set before I add music and before Bill does his sound effects magic."

The two engineers—who have mixed together for 13 years, since the second season of *CSI*—have to carefully balance the action with the drama. "It's a delicate weave between Bill and me," Reese says. "There'll be rip-roaring sounds on an episode with a train, and then suddenly a character will come in and deliver a line, really quietly. So we have to dip everything out so we can understand the line." ■



Bill Smith



Yuri Reese



It's What's UNDER the Hood That Counts!



sixQ2



oneQ2



twinQ2

Improved features in the new Q2 Series:

- CineMag US Made Mic Input Transformer Offers Improved Sound and Higher Output AND Adds More Depth to Joemeek's Tone!
- Burr-Brown OPA2134 OpAmps for Higher Output and Lower Noise!
- Increased Signal Headroom!
- A to D converter and many other features to complement your DAW!

BUY JOEMEERK

GET FREE MICS.



Learn more at:

www.joemeek.com

Joemeek is a part of the PMI Audio Group (310)323-9050



JOHN ROESCH

Foley Artist Honored for a Lifetime of 'Breaking the Rules'



Photo: Matt Hurwitz

**John Roesch is a very noisy man.
And he has been for more than 30 years.**

A Foley artist on more than 400 motion pictures, Roesch recently received the MPSE's Career Achievement Award at the 2013 Golden Reel Awards, the first Foley artist so honored. "I guess they felt I had the right stuff," he says with his usual deadpan, from his home base in Bldg. 68 on the Warner Bros. lot.

"The term 'Foley' is a bit of a misnomer," he starts off. "It doesn't succinctly say what it is we do. Foley is custom sound effects. We are creating sound exactly as it is seen on the screen. It's whatever the audience will believe as correct, that matches what we see. If it's not onscreen, we don't do it."

Though he had originally planned on being an actor, Roesch received a degree in filmmaking from New York University in the mid-1970s, followed by a year as a Directing Fellow at AFI in Hollywood. In 1976, as a favor to a friend, now-supervising sound editor Dessie Markovsky, he took on Foley duties for a film. "Of course I helped her, but I thought, 'Boy, what a stupid job,'" Roesch says. *[Laughs.]*

On his way to what he thought would be his second—and last—Foley job, he ran into his apartment manager and told her where he was going.

Coincidentally, "she" turned out to be award-winning Foley artist Joan Rowe, and she told Roesch they had an opening at Gomillion Sound, where she worked for the late Ted Gomillion. Later, she would become Roesch's first Foley partner.

At the time, Roesch says, the most a Foley artist was expected to do was provide the basics. "You did some foot-steps, to fill the void, and you did some props here and there, and that was really the end of it. But at Gomillion, we were asked to do a lot more just to 'help out.'"

By 1978, Roesch had gone freelance, working out of the Samuel Goldwyn Studios (soon to become Warner Hollywood), where veteran sound effects editor Doug Grindstaff introduced him to supervising sound editor Gordon Ecker, Jr. "Gordy wanted to do Foley outside 'the system,'" Roesch recalls. "Not only outside the system, but outside the studio. He would ask us to do things that Foley artists didn't usually do, which would be breaking the rules at a major studio. I didn't know that there were any

unwritten rules. And even if I knew there were, I don't know that I would have cared that much, because Foley itself is just so much fun to do."

Ecker and Roesch, along with mixer Tim Sadler, soon opened Warren Sound West, renting a small dub stage owned by mixer Peter Smolian and developing a new approach to Foley. Sadler would, for instance, suggest microphones not normally used in Foley, such as a Sony ECM-50 lav mic, in order to get closer to the source, making the sounds larger than life. "Gordy taught me that there are no rules in Foley," Roesch says. "That's the only rule."

In the '80s, Roesch began working with Joan Rowe, his first of several partners (Ellen Heuer, 1991-94; Hilda Hodges, 1995-99; Alyson Moore, present). They were soon called by Oscar-winning supervising sound editor Chuck Campbell. "He was the other great teacher for me," Roesch says. "Gordy showed me there were no limits, and Chuck really sculpted my sonic ear. Something which I would think was good, he would point out to me what I might try to make it better. And that really has served me well."

For E.T., Campbell relayed director Steven Spielberg's request that E.T. sound "funny." "Joanie and I went to lunch, and somebody ordered Jell-O," Roesch remembers. "And as the bowl was thrown onto one of our trays, and it was wiggling away, we just looked at each other and started

laughing. Joan went home and cooked up a huge pot of Jell-O, and I took my T-shirt and taped the neck and the arms, turned it upside down, and poured all this Jell-O into it.”

Roesch also performed E.T.’s walk: “He reminded me of a duck out of water—the way they’re graceful in their own world, but on land, they waddle around. So I did his footsteps using my hands.” The film won two Oscars for sound, including Best Sound Effects Editing.

By 1984, Roesch and Sadler teamed up with Allan Goodman and opened TAJ Soundworks. There, they welcomed the technological skills of engineer Ed Bannon, who provided, among other things, a custom-made mic cable known as “The Phaser.” Bannon also solved a sound intrusion problem in the ceiling of TAJ’s studio with a custom suspension system, something he also utilized in a mic stand system, which similarly isolated low-frequency sounds. Bannon also suggested using a Neumann KMR 81 shotgun mic, which Roesch immediately found to his liking. “That was, once again, against the ‘Foley law,’ but it allowed me to go off-axis and sound more naturally offstage, if I needed.”

Lasting Effects

Lawrence Kasdan’s western *Silverado* gave Roesch a chance to help introduce something that would become a hallmark of his work. “Bob Grieve, the supervising sound editor, really wanted the film to give the experience of the expanse of the West, the feeling of being in a saloon,” he explains. “I actually bought some replicas for that film, like of a Henry rifle and a Colt six-shooter. I really want to get as much authenticity in a film as possible.”

But in this case, the literal authenticity was superseded by screen authenticity—specifically the sounds of spent brass shell casings hitting the ground. “The problem was that when we used the caliber of the actual weapon, they all sounded like a dull *dink*. But if I used something from a large-caliber rifle, like a .223, it sounded right. Now, pretty much any time you hear a bullet casing in any film, that’s what it’s going to be, not the actual caliber.”

In 1992, the TAJ partners split, and Warner’s sound department head, Don Rogers, invited Roesch to join his studio team, first at Warner Hollywood, and then, in 2000, to his current home base on the lot.

Advances both in filmmaking and directorial skill have meant additional challenges for the Foley artist, Roesch notes. “Some directors that we work with, such as Christopher Nolan or David Fincher, are very precise in what they give us to do. Fincher told Ren Klyce, the supervising sound editor on *The Girl with the Dragon Tattoo*, that he wanted the town in the film to sound very cold. The first way that was introduced is when Daniel Craig’s character arrives on a train. We wanted the wheels to sound very cold and crackly. So I bought a couple of old ice trays, the ones with the

handles, on eBay, so when it pulled up, I would slowly pull the handle in conjunction with the picture.”

The level of precision is challenging, but it’s also the reason Roesch does what he does. “That kind of thing is so much fun for us. It makes our job more difficult, but much more rewarding. An ice tray. It’s fantastic.” ■

AAX Plug-ins for Pro Tools

Sonnox

We’ve got you covered.

AAX
DSP

AAX
NATIVE

www.sonnox.com



MIX REGIONAL: SOUTHWEST U.S.

SHIFTING SANDS AT STEPBRIDGE



Photo: Boril Rodoykov

Edgard Rivera adding final touches to completed movie mix with film director, Luca Ceccarelli of HDNM Entertainment.

"In our studio A, we sold our analog SSL console and 2-inch machines and changed to a digital console," Rivera explains; the room is equipped with Pro Tools HD3, Waves Diamond Bundle and Neve mic pre's. "The decision came from reviewing our maintenance costs versus our client's needs."

Stepbridge's clientele has changed since '06. The studio used to focus on music projects for artists such as Robbie Robertson, Dwight Yoakam, Randy Travis and others. Now the big tracking room, Studio A, sees a steady stream of up-and-coming bands, and the B room, with its Pro Tools HD1 rig, is run in collaboration with local film development and production company HDNM Entertainment and attracts high-profile sound-for-picture clients.

"We've done ADR for Alan Arkin in *Argo*, Sam Shepard in *Out of the Furnace*, Robert Redford in *All Is Lost*," Rivera notes. "George R. R. Martin, author of *Game of Thrones*, lives in Santa Fe; when they're ready to record director commentary for DVD release, they come here."

Of course, music and post aren't mutually exclusive. In 2010, Stepbridge hosted T Bone Burnett and engineer Michael Piersante for the *Crazy Heart* score. "The playback for the concert scene and a small club scene were recorded here with Jeff Bridges and Colin Farrell," Rivera recalls. "Post is our mainstay; now we offer dailies, and uncompressed picture editing and finishing services, as well as full mixing. We're busy, in part because we shifted and adapted for both music and post."—Barbara Schultz

A studio of choice for Oscar-winners and up-and-comers, Stepbridge (Santa Fe, N.M., stepbridge.com) has been providing music/audio services since 1989. In 2006, the studio Tim Stroh originally built from three adobe *casitas* was sold to musician/engineer Edgard Rivera, who has seen his business through some big moments, and big changes.



Senegal Meets Vegas

Senegalese artists Daaja J Family, led by Faada Freddy and N Dongo D (pictured), were in Studio at the Palms in Las Vegas, Studio Y, working with up-and-coming in-house engineer Mark Gray on a new album project.

"Working with the Daaja J Family was incredibly rewarding musically," Gray says. "The performances were solid but the tracks were recorded in various 'home' locations with varying levels of recording expertise, so it took an enormous amount of time to make the tracks sound cohesive from song to song. Luckily, we didn't have to record any fixes at all so it really was about being patient and weeding through the tracks over time. Ultimately we achieved the sound we were going for, and I'm extremely proud of this record."

On a Magic Blanket Ride



Located in Mesa, Ariz., Flying Blanket Recording specializes in analog recording and mixing in a completely converted 3,500-square-foot home. Owned by producer/songwriter/musician Bob Hoag, the studio is a two-room facility re-

plete with vintage gear, including guitars, basses, amps, keyboards and drums, as well as a numerous other "weird" instruments.

Though the studio focuses on analog, both rooms are also equipped with Pro Tools HD 3 Accel.

Studio A has a 1978 Neve Custom 8078 console, plus five channels of Neve 1079s, a Studer 800 2-inch 24-track analog tape machine and an Ampex ATR-102 1/2-inch mixdown tape machine. There are also three live rooms for Studio A—a large one (Huerta Room) with 15-foot ceilings and vintage oak floors; a medium one (Rincon Room, pictured) with 9-foot ceilings and vintage oak floors; and a smaller, dead isolation hallway. Additionally, Studio A houses a large collection of guitars, amps, and drums (mostly vintage), as well as two vintage pianos and a Yamaha electric piano.

Studio B (Reposa Room) is fully equipped with a late '70s, hand-wired Amek 2500 36-channel console and additional vintage and new outboard gear. The small live room has vintage oak floors, and was designed to sound like a much larger room—great for smaller overdub and voiceover projects.

For more information, visit flyingblanket.com.

A STUDIO FOR STUDENTS



The International Academy of Design & Technology Las Vegas opens Vegas View Recording this month, an on-campus 2,500-square-foot recording and mixing studio designed by renowned acoustician Carl Yanchar and IADT studio manager Bobby Ferrari. While the studio is first and foremost a teaching space for IADT students, it is also available for hourly and daily lease by professionals.

The studio includes a vocal booth, a 1,200-square-foot live space and SSL 9080J-based control room. There's also a 48 I/O Pro Tools HDX system with Waves Mercury Bundle, along with Neve 1073 mic pre's, Summit Audio pre's, EQs and compressors, Bricasti Reverb, JCF Latte converters, and Dynaudio M3 main monitors with Lab Gruppen amps.

"IADT Vegas is a great company to work for, and management truly felt that a commercially viable studio would be the best way to prepare students for the real world of audio," Ferrari says. "The new facility will be open to the public to book sessions, and students and staff will be involved in all aspects. We are really excited about the future for our grads!"

A grand opening is planned during the NAB convention in Las Vegas on April 9, 2013.



TEMPEST RECORDING MIXES FLOYD DIXON FILM SOUNDTRACK

Clarke Rigsby, the engineer and owner of Tempest Recording in Tempe, Ariz. (tempestrecording.com), reports that he recently mixed the soundtrack for *Time Brings About a Change: A Floyd Dixon Celebration*, a documentary film released in March presenting the blues artist's two-day concert that took place in Phoenix in 2006, just weeks before Dixon passed away. Dixon, a pianist and vocalist, is perhaps best known for writing and recording "Hey Bartender" in 1954, which later appeared on The Blues Brothers' 1978 debut album *Briefcase Full of Blues*.

Rigsby says that the film features "my old pal Kim Wilson, Henry Gray, Pinetop Perkins, Kid Ramos and many others for High John Records. We recorded it back in '07 and I served as the recording engineer and one of the producers. But the film was just released. I mixed it with my pal Aaron Feller."

The Joint: Bringing Hard Rock to Residencies



Las Vegas is chock-full of music residencies. There's been Celine Dion, Elton John, Boyz II Men, Rod Stewart, Garth Brooks and CeeLo Green, to name a few, as well as scores of DJs—including Kaskadee, deadmau5, and the newly confirmed Tiësto—peppering the strip. (Word has it that Britney Spears is close to signing a deal to set up shop in Sin City, too.) But the Joint at the Hard Rock Hotel

and Casino has carved out a place where you can rock 'n' roll all night (and, well, party ev-er-y day, if you're so inclined).

Renovated and expanded (it nearly doubled in size) in 2009, the Joint has hosted residencies for rock 'n' roll royalty such as Santana, Guns N' Roses and Mötley Crüe. British hard-rock stalwart Def Leppard is currently inducing a sea of fist-pumps regularly with its exclusive 11-show residency entitled VIVA Hysteria! The band digitally released "Hysteria 2013" last month—a modern take on the classic album's title track. For the residency, Def Leppard is playing songs from across the whole spectrum of its career, in addition to playing the iconic album *Hysteria* in full. Produced by AEG Live, VIVA Hysteria!, features an elaborate set design created exclusively for the band's Vegas stint, which runs through April 13. (For tickets, visit thejointlasvegas.com.)

In addition to residencies, the Joint also plays host to rock acts on tour. Jens Muehlhausen, lead audio engineer for the Hard Rock Hotel and Casino, says there's no difference between residencies and regular acts with regard to sound. "Every night is someone's very first time hearing their favorite band live in front of them. I try my hardest to honor that. We all remember our first time. It may also be the last time someone will ever hear their favorite artist live in concert...I try to honor that as well. Residency or not, every show is important."

While most touring acts bring in their own gear, Muehlhausen says the Joint has "an extensive microphone package, as well as all the standard mics, cables and mic stands to facilitate and anticipate almost any needs."

The Joint uses a d&b audiotechnik speaker system: 10 J8s plus four J12s per side, six J-SUBs (flying) per side, six E3s plus two Q10s for front fills, 16 E3s for under balcony delays, and 4 Q10s for the third balcony. Four additional d&b J-INFRA subs can be set up. The venue also has 12 M2s, six M4 wedges and enough D12 amps to do 18 onstage mixes. "[Bands] always are happy to use our P.A. system since it is state of the art," Muehlhausen says.

For consoles, the Joint has two Avid Venue Profiles (one for monitors, one for FOH), loaded with all common plug-ins. "We also own two Yamaha PM5D consoles, which are primarily used for shows in the summer at our pool stage with an L-Acoustics KUDO line-array system," Muehlhausen says.

A classically trained musician, Muehlhausen's mixing style is to rely mostly on his ears, listening to every note. "I've been playing violin since I was 7, and piano since I was 10. I grew up in Hamburg, Germany and have lived in the United States only since 1999. I like to say, 'If the mix sounds clear to me, and I understand every word sung, then the average patron in the theater is bound to understand.'"—Lori Kennedy

THE SALTMINE STUDIO OASIS

by Tom Kenny



In Studio A, head engineer/producer Phil Schlemmer, left, and producer/owner Don Salter.



Studio A's live recording space.

filled with sand and concrete, isolating floating floors and interior walls with mass and diffusion. New electrical and plumbing and AC to exacting studio standards. These rooms translate perfectly.

Salter's language is peppered with Vibe, Magic and Music. He confessed more excitement to meet Rick Rubin than even a favorite Sheryl Crow when they recorded some of "Sweet Child O' Mine" more than a dozen years ago, which garnered Song of the Year. Being a guitarist, flutist, songwriter himself, he shares his lifetime collection of 75-plus guitars, endless vintage amps, keyboards, a C-7 Grand Piano and C3 Hammond Organ with Leslie 122 speaker, Farfisa, Contempo, Wurlitzer and most modern keyboards with visiting artists.

He has Studios, five of them, with a capital S. Surrounding the beautiful Oasis Venue Courtyard (500 capacity) sit three Mexican fountains, towering palm trees lining 10-foot walls and an outdoor stage within its 16,000-square-foot Spanish-style private, gated compound. They also have exclusive residential accommodations in their commercial "Studio Oasis."

The recording industry of 2013 is much different from the recording industry of 1988 when he started, and Salter is fully aware of that. He can't compete with the laptop or home recording studio-producers price-wise, but he can give them a place to land for a couple of days.

He doesn't fill all his rooms all the time he admits as, "It ebbs and flows." But he books The Saltmine as both a physical artistic environment, for live events or as a soundstage or by providing recording, mixing or mastering services or making music videos and using his creative space and team to inspire his artists and his "in-house" producers alike.

"We've created something so unique, so beyond what could ever be realistically financially duplicated in the future, that we expect to continue to be around for a long time," he concludes. "Our philosophy of combining vintage old-school analog classic tools with modern, new-world digital, housed in a private, vibe-rich, creative environment with a gluttonous supply of gear, tools and instruments, will always be in demand by the true artist that demands nothing less. We invite all artists and producers with any budgets in any genre to experience what The Saltmine has to offer. For complete equipment lists and some stunning photos, visit thesaltmine.com.

About 30 seconds into a conversation with Don Salter it's clear that this guy knows old-school—the vintage discrete 36-channel custom Neve with an additional 12-channel discrete Melbourne; the restored and revered SSL 6064 E/G+ from Ben Grosse's The Mix Room; David Foster's SSL 4056 G Plus.

Then after a couple of minutes he starts talking about a facility-wide Avid Pro Tools HDX upgrade on brand-new 12-core Macbook Pros, and Gold and Platinum plaques from Lil' Wayne, G-Unit, Swizz Beatz, Jonas Brothers, MGK and Bone Thugs, along with recent visits from Kelly Rowland and Ludacris. He's excited about EDM mixes at his studio The Saltmine, led by Mickey "Mixin" Oliver. He talks about expanding his in-house video production to Live Streaming of a Master Class Series. He does ADR, VO and custom compositions for various commercial purposes, as well as making "beats" for local and national rappers.

One foot in tradition, one foot into the unknown. It's the new commercial studio business model he's figuring out on a daily basis, and this being his 25th year, he's seems here to stay.

Producer/general manager/owner Don Salter opened The Saltmine in a garage, then moved to an industrial area, then 10 years ago settled in to his current historic downtown Mesa, Ariz., location. "We re-developed a compound," Salter explains, "and we remodeled a historic 1914 building to class A standards, slicing concrete floors and erecting 14-foot walls

price-no-object monitors,
without the objectionable price.

insane quality. unrivaled performance.

Stealth 8. 30Hz–23kHz +/- 1.75dB.
400W RMS bi-amped audiophile power.
120dB nearfield. \$749 (\$1498/pair)

Stealth 6. 39Hz–23kHz +/- 1.75dB.
210W RMS bi-amped audiophile power.
115dB nearfield. \$549 (\$1098/pair)

Try Stealth 6 or 8 for yourself, in your own studio, for 30 days.
If you aren't completely blown away, return them for a full refund.

EMOTIVA
PRO

EMOTIVAPRO.COM | 615.791.6254

LUCA PRETOLESI

Producers and artists working in electronic dance music must get a good laugh out of the fact that the United States just now seemed to “discover” the genre. Luca Pretolesi, who is credited with popularizing house music in Italy 20 years ago and producing pioneering work in EDM, is a true international producer/artist now making his home in Las Vegas, his space known as Studio DMI. Look for his work soon on the new Snoop Lion record, or take a listen to Steve Aoki, Tiesto, Bruno Mars, Major Lazer, Diplo, Cypress Hill and hundreds of others.

Twenty years ago, in Italy, I wanted my mixes to sound...
Clean and modern.

Today, I try to make my mixes sound...
Creative and full of color. [smiley face]

Can you describe, from your perspective, the trend toward the integration of EDM with other music genres.

From pop to hip-hop to rock, I hear more and more the influence of EDM. The mainstream hears it as a fresh sound. Mostly it's the arrangements and sound design. It's becoming more frequent to hear a dubstep drop on a pop song or a progressive house chord progression on a hip-hop track.

When you are asked to remix a song on an EDM track, what is the first thing you do? Then what?

I always try to create an order of priority on the mix. I bring only the main elements in first. A simple and clean session. In the case of a vocal song I always work around the hook and drums first, followed by main synths and bass. I start from leveling and panning followed by dynamics. I respect the original composition first and then bring my colors on the mix. For example, on Bruno Mars—“Locked Out of Heaven (Major Lazer Remix)”—I had the opportunity to retouch an amazing up-tempo hit with the right elements already in place. I worked mostly on drums, bassline, synths, separation and more “in-your-face/dry” mix.

When you get a chance to produce a Snoop Lion record vs. producing a single track for, say, Steve Aoki, what is your difference in approach?

Very different, even though I did mix the whole Aoki album, which was 100-percent EDM from the start. On “Ladi Dadi,” for example, I kept the Wynter Gordon vocal very intimate in front of the mix without compromising synths and pads, levels and dynamics. The overall album has a great balance of EDM/radio.

The Snoop Lion album...it's definitely one of the most interesting and creative productions this year. I had a lot of fun and freedom with those mixes. The album has deep influence from reggae, West Coast hip-hop and fusion with electronic sound. The album is very rich with collaborations and guest appearances, including Chris Brown, Drake, T.I., Akon and others. I had to deal with all those guest vocalists recorded in different studios. I tried to keep



the integrity of the artist sound but at the same time blend with the vision of the mix. The album sounds definitely current but with a retro feeling. I had the chance to experiment a lot—a lot of harmonic distortion, parallel processing, traditional UBK Fatso, 1176s on drums but also heavy plug-in use and lo-fi re-sampling on synths, including a nontraditional use of Metric Halo plug-ins and NI Guitar Rig on synths and even on vocals. Snoop sounds very intimate and in front of the speakers. To me this record sounds fresh.

What do you look for in the low end? And how do you get it to translate across all systems, from club to streaming?

I want to translate the club feeling over radio and any media. Sometimes I will do a different mastering just for radio/YouTube/TV. I start a mix with a specific space for kick and bass on the mix. I keep my mix mono up to 150/200 Hz. I love to experiment with parallel processing on kick and drum bus with unconventional plug-ins in combination with vintage outboards. I always try to minimize individual corrections to avoid phase problems. I like to group parts. Most of the time I mix OTB drums. I use 4 channels of an old Neumann W491a. A passive summing and API A2D just dedicated for my drums. I use an old 1987 Ramsa T820 mixer just for color on synth plug-ins. I always record back on the session for automations and fine-tunings.

You mix and master. But my guess is that your approach to mastering is different from, say, that of Bob Ludwig...

Mastering equals integrity to me; never force a record to sound unnatural. I like to really feel the producer vision as far as ratio—loudness vs. dynamics first. I like to try different solutions, and sometimes I do multiple versions, then I choose the best a few hours after the session is over. I almost never compress anything under 300 Hz, and if I do, it's parallel compression. I combine analog clipping with plug-in limiting for loudness purposes. Besides the technical part, I love to use my “DJ” side when I'm mastering dance music. I really feel the music and A/B with other tracks. Mastering my own mixes is mostly just leveling and fine adjustments. If I need drastic changes, I always go back to the actual mix session.

dbx
by HARMAN

Dial in YOUR mix exactly
as YOU want it, in real time.

PMC¹⁶

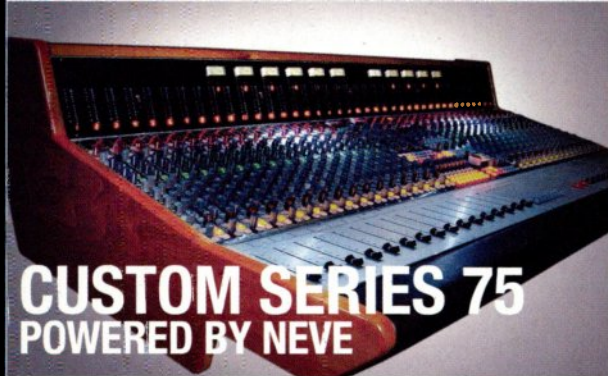
Personal Monitor Controller

The PMC16 Personal Monitor Controller is a digital remote control providing a cost effective and powerful personal monitoring solution. Whether using headphones, in-ear monitors, powered monitors, or traditional wedge monitors, the PMC16 allows performing musicians to control their own personalized stage monitor mix with ease. Using BLU link, and a Setup Wizard for ease of configuration, full 16 channel mixer level metering, and an intuitive yet powerful user interface, PMC16 gives you the power to dial in YOUR mix exactly as YOU want it, in real time.



3 Important Features you **MUST** know...

- Setup Wizard Control
 - Faster and easier set-up
- Lexicon® Courtesy Reverb
 - 3 types of Global Reverb
- BLU link Compatibility
 - Works with ANY BLU link install



CUSTOM SERIES 75 POWERED BY NEVE

A highly versatile console combining both classic and modern circuitry, complete with 1073/1081-inspired channel strips



METRIC HALO LIO-8

Pristine eight-channel 192kHz/24 bit standalone converter & FireWire interface



BAREFOOT MICROMAIN35

Like its big brother, the MM35 brings Barefoot's revolutionary three-way technology into an even more compact enclosure



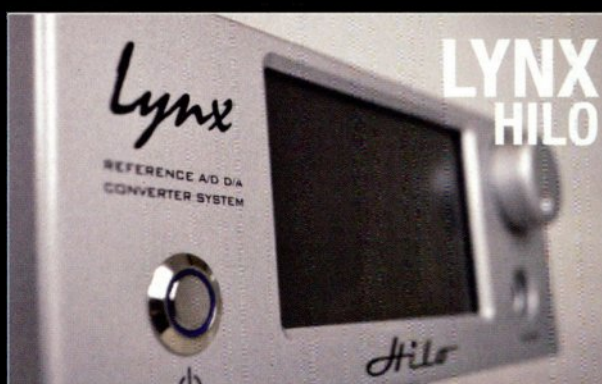
LITTLE LABS REDEYE 3D PHANTOM

Vintage transformer DI box & re-amp with passive & active inputs, taking all the guesswork out of high-fidelity re-amping



GRACE DESIGN M905

With plenty of connectivity, Grace's new intuitive monitor controller is a sublime home base for the modern control room



LYNX HILO

AD/DA converter plus headphone amplifier offering control, performance and connectivity never before available

VINTAGE KING APPROVED

If it's on our site, it's Vintage King Approved. That's more than a thumbs up, it's a vote of confidence. At Vintage King, we select only the best of the best gear — equipment you can rely on to get the job done. More than that, we include a free extended warranty and ship most items free to your door. The bottom line is, we're big on tone and huge on service. Check us out online today.



APOGEE SYMPHONY I/O

With new lower prices and pre-configured base models, one of the best converter interfaces just got a whole lot better

ATC LOUDSPEAKERS SCM100ASL

"ATC: Always The Champion. I will not record without them. The best studio monitors. Period." – Lenny Kravitz

PURPLE MC77

The MC77 sacrifices nothing in bringing you the classic tone, feel and warmth of the original Urei 1176

FOCUSRITE SAFFIRE PRO 40

Professional 20-in/20-out FireWire interface with 8 famous Focusrite preamps - the best-sounding interface in its class

ADAM A7X

Active reference monitor with advanced extended-range ribbon tweeter (up to 50 kHz!)

UNIVERSAL AUDIO APOLLO

High-resolution computer audio interface with real-time UAD processing; Thunderbolt connectivity now available!

0% INTEREST FINANCING

with the Vintage King G.A.S. Card

More info at www.vintageking.com/creditcard



VINTAGEKING.COM

NEW | USED | VINTAGE

888.653.1184



PORTABLE RECORDERS

High-Quality Tracks on the Go

By the Mix Editors

It wasn't that long ago that Sony came out with the PC-MD1 high-end portable recorder, with built in condenser mics in an X-Y configuration and 24/96 recording. Then Zoom came out with a low-cost portable recorder aimed at songwriters/artists, joining the ranks of Alesis, Yamaha, Roland and Tascam, and the market took off. Now, there is something of high quality for just about anyone.



Boss MICRO BR BR-80

The pocket-sized BOSS MICRO BR BR-80 (bossus.com) records directly to an SD/SDHC memory card (up to 32 GB) with a built-in stereo condenser microphone, and is equipped with

three modes for creating, recording and performing music: an 8-track MTR (Multi-Track Recorder) mode; an eBand mode for onstage backing tracks and phrase training; and a Live Rec mode for instantly capturing high-quality stereo recordings. Plus, all three modes can be used in combination.



Fostex FR-2LE

Manufactured from high-grade materials and specifically designed for professional location recording, the Fostex FR-2LE (fostex.com/usa) records 24-bit/96kHz BWF files, as well as MP3 files, to a Type II CompactFlash card.

On an 8GB CF card, it can record 12 hours at 16-bit/44.1kHz. The FR-2LE is equipped with two phantom-powered XLR microphone inputs (XLR-phone combo) complete with precise control over the recording level, as well as high-quality microphone preamps and trim control. Analog out is offered on RCA connectors.

Korg MR-2

The Korg MR-2 (korgusa.com) uniquely offers Direct Stream Digital fidelity and records to (and plays back from) SD or SDHC cards. Recordings made on the MR-2 can be converted into nearly any multi-bit format for use on any project and within any DAW software/hardware platform. Multi-format recording and playback include SACD, 1-bit DSD at 2.8224 MHz, and multi-bit PCM formats up to 24-bit/192 kHz. DS-



DIFF, WSD, DSF, WAV/BWF, MP3 and MP2 recording and playback are also supported. The MR-2 uses a stereo electret condenser mic in an X-Y configuration that is capable of rotating 210 degrees. It provides an analog limiter, low-cut filter, and bass EQ. Forty Recording Setups call up specific mic sensitivity, limiter, low-cut filter, and bass EQ settings. Ten custom user settings can be memorized.

Nagra LINO

The Nagra LINO (nagraaudio.com) is a solid-state audio recorder with built-in microphones designed for use in any ultra-portable recording situation. It records to a removable SD/SDHC memory card of any memory capacity. (Standard SD cards have a maximum capacity of 2 GB; from 2 GB to 32 GB they must be of the SDHC type.) It records at resolutions from 16-bit/44.1kHz to 24-bit/96kHz to PCM mono or stereo audio WAV files, while MPEG compression allows for longer recording times.



Olympus LS-14

The Olympus LS-14 Linear PCM recorder (getolympus.com/us/en) uses two internal 90-degree directional stereo condenser microphones plus a third omnidirectional mic at the center, with a stated frequency response of 20 to 20k Hz, and an amplifier, supporting sound pressure levels up to 130 dB. Audio and system circuitry are separated to minimize sound degradation. Files are recorded in PCM or MP3 modes and saved to the 4GB internal memory, or on SD/SDHC cards up to 32 GB.



Roland R-26

The R-26 (rolandus.com) uses dual stereo mics and six channels of simultaneous recording. There are two types of stereo microphones built into the R-26, directional (X/Y) and omnidirectional, plus a pair of XLR/TRS combo inputs to accommodate external mics, for up to six channels (three stereo) of simultaneous recording, and an input for a stereo plug-in powered mic. In addition, users can mix the mics together to achieve the optimum balance. The R-26 is equipped with Roland's proprietary IARC (Isolated Adaptive Recording Circuit)

on the inputs for the built-in mics and as well as the external inputs. This

analog circuit is completely isolated from the digital circuitry and has its own power supply, reducing digital noise and achieving very clear sound. The R-26 includes a USB interface and is bundled with SONAR LE software (Win).



SANYO Xacti ICR-XPS01M

The SANYO Xacti ICR-XPS01M (us.sanyo.com) offers two recording formats: Linear PCM (16-bit/44 kHz) and MP3. Its high-sensitivity microphones capture sound from a 360-degree angle in a balanced, uniform manner, and are said to minimize noise levels. A 2GB microSD card is included and it accepts up to an 8GB microSD/microSDHC card. It features a touch sensor panel for transport control functions (Play, Pause, Forward, Rewind), Menu and Mode functions, as well as a large, full-dot matrix LCD display which can be operated with backlight on or off for additional

power savings. The use of a recording peak limiter ensures reliable recording by suppressing distortion from abrupt, loud, transient sounds.



Sony PCM-M10

The PCM-M10/B (pro.sony.com) is a 96kHz/24-bit capable recorder with electret condenser stereo microphones, 4 GB of internal flash memory and a microSD/Memory Stick Micro (M2) Slot for expanded memory. Key features of the PCM-M10 recorder include a built-in speaker, cross-memory recording, digital limiter, low-cut filter, track mark functions, a 5-second pre-recording buffer and A-B repeat capability. The recorder includes a USB high-speed port for simple uploading and downloading of native .WAV or .MP3 format recorded files to and from Windows PC or Macintosh computers. The M10 offers durable construction and long battery life using conventional AA alkaline batteries.



Sound Devices 744T

The Sound Devices (sounddevices.com) 744T is a 4-track file-based digital audio recorder in an aluminum and stainless steel chassis housing two channels of built-in preamps with phantom power, limiters and highpass filters. The preamps offer frequency response linearity while maintaining low distortion and noise. It also has 2-channel, balanced mic/line level outputs on TA3 connectors, AES3 (XLR) or AES3id (unbalanced AES on BNC) digital inputs and AES3id outputs. The 744T records uncompressed PCM audio as WAV files, and is Broadcast Wave compliant. The 744T records uncompressed PCM or compressed MP3 audio to its internal hard drive, a Compact Flash card and an external FireWire drive, allowing for flexibility to complement the required workflow. It can be connected to Mac OS or Windows computers with FireWire 400 for high-speed data transfer



Your search for precise yet affordable reference monitors has just ended. Our aluminium die-cast active monitors feature high-grade components throughout and produce a rich and detailed sound. Audition a Sonodyne SM Series nearfield monitor today.

BIL VORNDICK
8 time Grammy Award winner
(Alison Kraus, Bela Fleck, Trace Atkins, Jerry Douglas)

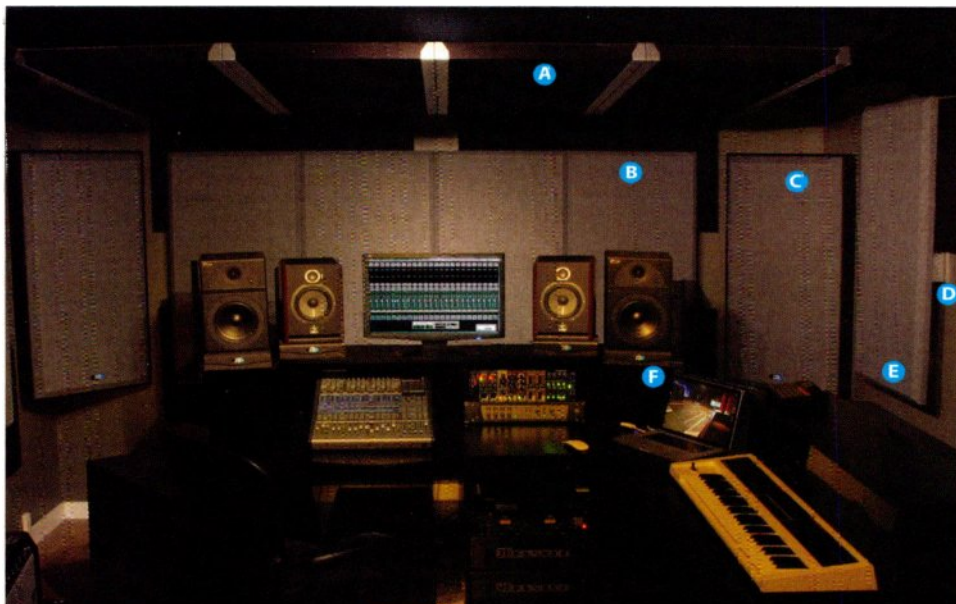
“I have **finally** found a speaker system I can **focus** with, hear the **depth** and is **tight** on the high and low end.”



USA: Transaudio Group Inc, T: +1 702 365 5155, E: sales@transaudiogroup.com
INDIA: Sonodyne, T: +91 9810661147, E: response@sonodyne.com

www.sonodyne.com | www.sonodyne.eu | response@sonodyne.com

Products of the Mukherjee Innovation Centre



Clean up your room!

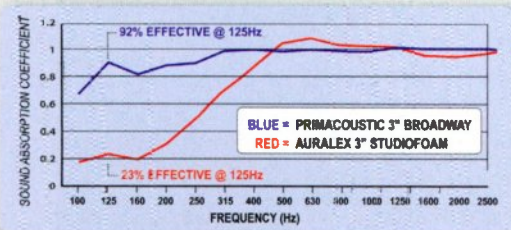
The single most important thing you can do to improve the sound of your recordings is to address the acoustics in your room... and Primacoustic makes it easy.

Start with your choice of Broadway™ panels or one of our easy-to-install London room kits. Then add MaxTrap corner traps and Stratus ceiling clouds to suit. Primacoustic has all the tools you need to get your recording space up and working quickly and affordably — with uncompromising quality. Compared to foam, Primacoustic delivers nearly 500% greater absorption in the critical bass region. This delivers a balanced mix that translates properly when you play your recordings on other systems.



London™ 12 room kit

- A Stratus™ ceiling clouds
- B Broadway™ Broadband panels
- C MaxTrap™ corner bass traps
- D Easy-to-mount impaler system
- E Broadway™ Control Columns
- F Recoil™ Stabilizers



Tests performed by Riverbank Labs on 3" Primacoustic Broadway panels and common acoustic foam. Both absorb high frequencies, but as sound shifts to bass, the foam stops working.

Simple, modular and affordable – Primacoustic delivers spectacular performance for cleaner, more professional sounding results every time.

Clean up your room... with Primacoustic!



"I am not a handy guy, believe me when I tell you how easy it is to install. Now my room sounds great."

~ Rob Wells
(Backstreet Boys, Cyndi Lauper, Mika, Justin Bieber, Selena Gomez)



PRIMACOUSTIC®

A division of Radiaf Engineering Ltd. - 1588 Keblet Way, Port Coquitlam BC V3C 5M5
www.primacoustic.com

Specifications and appearance are subject to change without notice



Tascam DR-40

The Tascam DR-40 (tascam.com) handheld 4-track recorder uses built-in condenser microphones, XLR mic or line inputs. The internal mics are adjustable from X/Y to A/B position, helping you to tailor your recording to the sound of the room. It also has a pair of Tascam microphone preamps for condenser microphones with phantom power, recording at up to 96kHz/24-bit resolution.



Yamaha Pocketrak W24

The Yamaha Pocketrak W24 (usa.yamaha.com) provides Linear PCM and MP3 stereo recording, is bundled with Cubase A15, and also features a large dual (X-Y) microphone assembly for outstanding stereo sound quality at 24-bit/96kHz and a supplied wireless remote control. The W24 records to microSD/microSDHC cards (2 GB).



Zaxcom Maxx

The Zaxcom Maxx (zaxcom.com/maxx) is an audio mixer, RF transmitter, recorder, timecode reader/generator and visual timecode slate in one small package. Maxx has four full-size XLR analog mic/line level inputs with 48-volt phantom power that incorporate the Zaxcom Nomad's mic preamps with NeverClip, which prevents input clipping by using two A/D converters for each input channel providing enhanced dynamic range, and allowing an input to exceed 0 dB full scale by 20 dB. The four input channels can be mixed to a two-channel output bus over two sets of output connectors that can be individually configured as line, mic and consumer output levels.



Zoom H4n

The Zoom H4n (samsontech.com) records up to 24-bit/96-kHz linear PCM WAV files, as well as MP3, to compact SD or high-capacity SDHC memory cards of up to 32 GB. The H4n has a high-quality preamp and uses on-board X/Y stereo condenser mics that allow for variable recording patterns at either 90 or 120 degrees. It also has a built-in M/S stereo decoder, an automatic level setting function, adjustable playback speed, MTR mode for simultaneous 2-track recording and 4-track playback, a low-cut filter, compressors, limiters, built-in combination XLR/Phone connectors with phantom voltage source capability, Hi-Z inputs, and a separate external mic input.

Products on command, knowledge on cue.

www.BandH.com



A wealth of options at the tip of your finger. Find exactly what you need through advanced search filters and Live Help. With in-depth product demos, podcasts, and customer reviews, you'll know exactly what you're getting. Knowledge is expansive. Get more of it at B&H.



Download from
Android Market



Available on the
App Store



Subscribe to the B&H catalog
www.BandH.com/catalog

World Radio History

Visit Our SuperStore
420 Ninth Ave, New York, NY 10001

800-947-5508

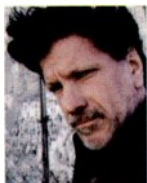
Speak to a Sales Associate



The Professional's Source™

RobairReport

MANAGING RISK



By Gino Robair

The old saw that “routine is the enemy of art” seems to be at odds with modern recording technology. Musicians work hard to find the right balance of predictability and surprise, yet the tools we use to capture inspiration require a high level of inflexibility. While those of us who work both sides of the studio glass try to balance the logical with the creative, it can be challenging to keep the tools from determining the finished product rather than the other way around.

We set things up to work a certain way and, without realizing it, we’ve boxed ourselves in, creatively speaking. Typically, what comes easy is what gets done.

Of course, routines simplify our workflow. They remove barriers to productivity in order to allow things to go smoothly. For example, we use session templates in a DAW so that we don’t have to reconfigure our recording setup from scratch each time we want to work. Ostensibly, that leaves us with more creative time.

But sometimes barriers produce richer results. If I may appeal to the cynical readers of this magazine: Doesn’t it seem like better music was produced when it was more difficult to make records? Didn’t limited track counts, expensive studio time and the necessity to hone one’s craft onstage before hitting the Record button add up to a higher level of artistic achievement? You had to be committed on every level.

Now we have an unlimited track count in a non-destructive recording environment that we have 24 /7 access to. Everything we need is close at hand and available at an affordable cost. Theoretically that should allow us to write a song at breakfast, record it at lunch and upload it by dinner (to paraphrase John Lennon about creating the song “Instant Karma”).

Instead, we fuss over minutiae and remain non-committal about nearly everything. Why shouldn’t we? The technology allows us to wait until the very last moment before choosing the amplifier sound we want or the exact reverb setting for a string pad. We can see when the waveforms of the rhythm instruments are not perfectly aligned, so we fix them—because we can. And it’s good to know that we can easily replace every drum sound should the need arise. It’s both a blessing and a curse that we can view the edges of our work so clearly.

Therein lies the rub: We work toward perfection by practicing and running routines in order to increase our productivity, yet we

need the ability to dash our expectations at a moment’s notice in order to create something fresh.

I can’t count the number of times that I’ve been in sessions where mics have been carefully placed on every part of the drum set, only to have them jettisoned during the mix in favor of a single omni sitting far off in the corner. Typically, the engineer wants things to sound as realistic as possible, while the artist is concerned with his or her vision of the song. That’s easy to work out when the jobs of artist and technician are divided between two people. But what if you’re wearing both hats?

Many of us like to think that lateral thinking comes naturally when we need it. We are, after all, in an artistic field. Books such as *The Six Hats* or *The Art of Innovation* are written for people who are unaccustomed to the creative process and out-of-the-box thinking. Or so we like to believe.

We expect that the years of work perfecting our craft will be the thing that saves us in tough situations. Often, it’s our ability to do the “wrong” thing that gets us over hurdles.

During one of the tracking sessions for the Tom Waits release *Bad As Me*, the rhythm section was trying to find its way through an arrangement, and one of the guitar parts just wasn’t working. It needed to be simple and naïve, but the guitarist just couldn’t capture the right feel. It wasn’t a matter of talent; this was a studio veteran who could, usually, play anything you asked for. Finally, after changing instruments and stripping down the part to no avail, Waits suggested he play the guitar upside down, as if he was a lefty. As the guitarist tried to navigate the fretboard with the hand that was normally used for picking, he nailed his part on the first take.

Most importantly, he didn’t just try it. He went after this unusual request with full conviction and made it work. Ultimately, it didn’t matter who made the suggestion because the goal was to find the right part. The guitarist could’ve tried it himself without saying so, but the pressure of the situation had the surprising effect of corraling his lateral thinking.

We’ve all had that dream where we show up for an important gig and we’re either naked or have forgotten our instrument—some variation on this theme. Now imagine that it’s no dream. Rather, you’re working for the client of your dreams but you have become creatively naked. Would you sort it out in a tried-and-true fashion, or would you attempt something absurd? Would you do so with full commitment? How much would you be willing to risk? ■

se·lec·tion [sə'lekSHən]

noun

1. the action or fact of carefully choosing someone or something as being the best or most suitable
2. a number of carefully chosen things
3. an extensive variety of tones for a sound engineer's sonic palette

HELIOS 69-500

Legendary mic pre/EQ, famous for "the sound of Olympic Studios"

AEA RPQ500

High-gain mic pre with EQ; get the best out of your ribbon mics

WUNDER ALLOTROPE EQ

The same vintage-style inductor EQ you love from the Wunder PEQ2



RUPERT NEVE DESIGNS 542 TAPE EMULATOR

Rich, colorful tape & transformer sound... meet the 500 Series

BURL B1D

Rock-solid Class A mic pre with custom input & output transformers

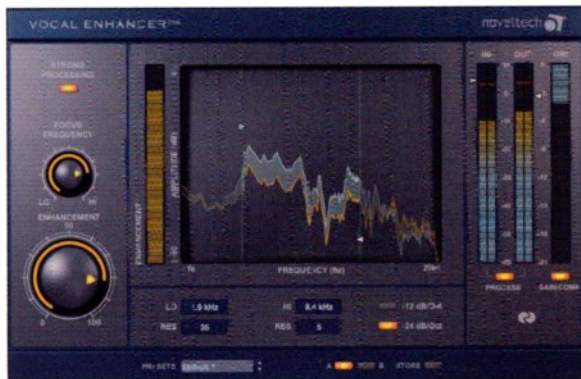
CHANDLER LITTLE DEVIL EQ

All-discrete British console-style handmade inductor EQ

0% INTEREST FINANCING
with the Vintage King G.A.S. Card

More info at www.vintageking.com/creditcard

Tech // new products



NOVELTECH VOCAL ENHANCER

Plug-in Vocal Tweaker

Unlike conventional enhancers, the Noveltech Vocal Enhancer (plugin-alliance.com, \$99.99) dynamically boosts the desired characteristics in audio recordings, rather than statically boosting set frequencies. The GUI offers two parameters for basic operation with an additional 2-band filter section for fine-tuning. The Noveltech Vocal Enhancer plug-in is available for a host of popular professional audio formats, including AU, AAX, RTAS, TDM, Venue, and VST.

LARS HEADPHONE SWITCHING BOX

Mini Control for Cans

LARS (Left And Right Switch) simplifies switching from program and camera-return audio with L/R isos on devices that have a limited monitor interface or a complicated menu system (reddingaudio.com, \$250). It works with units like Sound Devices' 788T, 744T or Zaxcom's Nomad, and can easily switch between Right Only, Left Only or Stereo on either the program or camera return audio with a turn of a switch. LARS is also a versatile miniature router to select and send iso IFB feeds from mixers to wireless transmitters with ease.

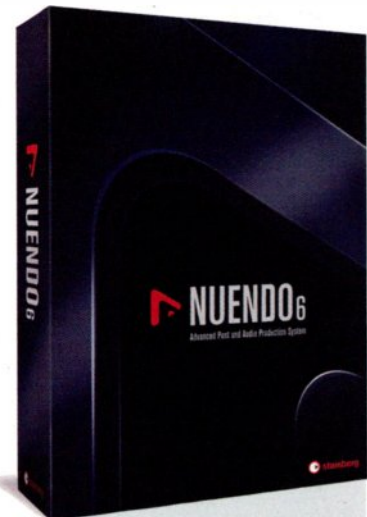


LINDELL AUDIO DACX

High-End Converter

Lindell Audio's DACX (lindellaudio.se, \$2,299) is a high-end digital-to-analog converter with special attention paid to the power supply, which prom-

ises to decrease crossover distortion. A dual output stage allows the user to select tube or op amp flavoring. The DACX features dual AES/EBU, coax S/PDIF, optical S/PDIF and USB audio inputs, and the selectable upsampling feature lets the user set the output sample rate to taste: 24/96, 32/96, 24/192, 32/192. Other features include balanced XLR and unbalanced RCA outputs, AK4397 Delta-Sigma D/A IC, S/N ratio of <math>< 114\text{ dB}</math> and THD <math>< 0.002\%</math>.



STEINBERG NUENDO 6

Power for Post and Recording

Upgraded features and looks in Nuendo 6 from Steinberg (steinberg.net, \$2,000) include the new insert view, plug-in and channel search and a new channel strip. The strip offers high- and low-pass filters, a noise gate with sidechain, various compressors and a brick-wall limiter. Other features include EBU R128 standard-compliant loudness metering with RMS metering scales, the Loudness Lane for tracking and editing loudness efficiently, and the new ADR taker system including onscreen dialog for dialog recording and language dubbing. New plug-ins include MixConvert v6 for down-mixing, Voxengo's 64-band CurveEQ and IOSONO's Any-mix Pro 1.3 for automatic EQ and loudness adjustments to surround sound signal panning and upmixing up to 8.1 surround sound.



DAYSEQUERRA ILC2ST LOUDNESS CONTROLLER

Hardware Husher

The iLC2ST Loudness Controller features compliance logging over Ethernet and an option for dual power supplies (independentaudio.com, \$TBA). The 2-channel stereo loudness controller delivers EBU R128, ATSC A/85 CALM and ARIB-B32 loudness compliance simultaneously for two independent stereo TV broadcasts in a feature-rich 1RU package. The iLC2ST has two independent stereo loudness controllers and dual full-featured ITU BS.1770 loudness meters. It offers real-time adaptive loudness control, delivering ITU BS.1770-compliant loudness without “squashing” the sound.



NEYRINCK V-CONTROL PRO 1.7

More Pro Than Ever

The latest 1.7 version of Neyrinck V-Control Pro media application controller for iPad and iPad mini is now available from the Apple App store and includes a host of new features. Version 1.7 adds an innovative jog/scrub/shuttle wheel, new features for Logic 9, layout preferences, and an improved floating V-Window feature for controlling plugins and instruments from the iPad. The skins for controlling Media Composer and Final Cut Pro 7 now have a new layout permanently featuring the jog wheel more suited to video editing applications. V-Control Pro is available from the Apple App store for \$49.99 and is a free update for existing customers. Users can download the latest Ney-Fi driver app for their Mac or PC from the Neyrinck Website (neyrinckaudio.com).



MARA MACHINES ANALOG RECORDER

Pimp My MCI

Engineer Chris Mara of Welcome to 1979 studio in Nashville has spun off a side business called Mara Machines (maramachines.com). The first product out of the gate is a fully restored MCI JH110

¼-inch stereo deck featuring 7.5, 15 and 30 ips tape speeds, XLR I/O, relapped heads, and a six-month warranty. The machine ships worldwide for \$3,500 and is also available as a ½-inch 2-track or a ½-inch 4-track.



BLUE SPARK DIGITAL MICROPHONE

Mobile USB Condenser

Expanding on the sound of Blue's Spark XLR studio microphone, Spark Digital (bluemicro.com, \$199) is the world's first studio-grade condenser microphone to offer both USB and iPad connectivity. Spark Digital features Focus Control, providing two different sonic options in one mic at the push of a button. Complete

with an adjustable desk stand and built-in shock-mount, Spark Digital includes Y cables for each platform with a headphone jack for zero-latency real-time monitoring.

Live Sound



RADIAL ENGINEERING STAGEBUG SB-5 SIDEWINDER

Laptop DI on the Go

Designed for quick deployment on busy stages and for the fast-paced environment of the AV system tech, the StageBug SB-5 offers an integral 1.5-meter (5-foot) cable terminated in a 3.5mm (1/8-inch) connection (radialeng.com, \$99.99). Features include twin isolation transformers to eliminate hum and buzz caused by ground loops, and a ground lift switch at the output to suppress noise. Should a device with an extra-high output be encountered, the -15dB input pad is activated to reduce sensitivity and prevent overload distortion. Output is via two 1/4-inch TRS output connections and an additional XLR output that sums the left-right signals to mono.

ALLEN & HEATH ICE-16

16x16 I/O Recorder/Interface



The ICE-16 from Allen & Heath is a 16-in/16-out audio interface allowing the capture of high-quality multitrack recordings direct to a USB drive or computer (allen-heath.com, \$999). The unit allows bi-directional streaming of 16 channels over high-speed USB or FireWire at 24-bit, 96kHz resolution. Alternatively, 16 channels can be simultaneously recorded straight to a USB hard drive or memory stick at up to 24-bit, 48kHz resolution WAV file. The ICE-16 is expandable, allowing units to be linked for higher channel count recordings.

Expansion Chassis for Serious Audio Professionals



ExpressBox 1T ExpressBox 3T

10Gbps Thunderbolt Techn

Magma's Thunderbolt™ ExpressBox family provides a lightning fast 'outside-the-box' solution for using PCIe cards like Pro Tools HDX, UAD-2 and other popular audio cards with Thunderbolt-equipped Macs. Magma is the desired upgrade path for serious professionals to the new Mac Book Pro, iMac or Mac Mini without sacrificing full access to DSP Plug-ins AND without losing the investment in PCIe hardware.

The sleek design matches elegantly with your Mac, ensuring that you *stay classy with a Magma chassis*.



• Requires Thunderbolt Connector and MacOS X 10.6.8 or higher

© 2013 Magma. Magma and ExpressBox are trademarks of Mission Technology Group, Inc. Thunderbolt and Thunderbolt logo are trademarks of Intel Corporation in the US and/or other countries. All trademarks are the property of the respective trademark owners.

f MagmaPCIExpress b MagmaExpressBox YouTube MagmaExpansion



DBX PMC16 MONITOR CONTROLLER

Your New Personal Mixer

The PMC16 is a personal monitor controller that allows users to create a custom, recallable mix from 16 channels of audio (dbxpro.com, \$749.95). Designed to be used with the dbx TR1616 or any other BLU link compatible device, the PMC16 allows for monitoring with headphones, in-ear monitors, powered monitors, or traditional wedge monitors. The PMC16 comprises a 16-channel mixer section with full control of levels, panning, effect send levels, muting, and soloing. Onboard Lexicon reverb provides the finishing touch. Output processing section includes stereo width control, wedge monitor compensation EQ, high and low master EQ, master level control, and dbx limiting.



ex·cel·lence ['ek-sə-ləns]

noun

1. the quality of being outstanding or extremely good
2. a state of possessing good qualities in an eminent degree
3. what you can expect from your experience at Vintage King Audio



0% INTEREST FINANCING

with the Vintage King G.A.S. Card

More info at www.vintageking.com/creditcard

GEFELL CMV 563 / M7S

One of history's most enduring microphone designs brought back to life



SE/RUPERT NEVE RN17

Incredibly detailed, speedy SDC with large-scale, hand-wound transformer



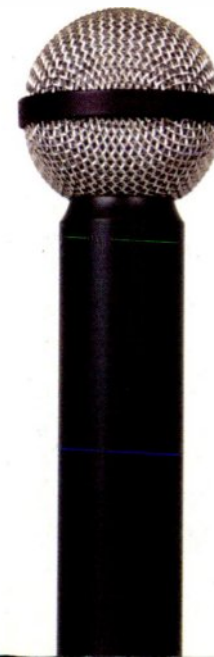
BLUE DRAGONFLY

Unique & forgiving with a rotating capsule; the true desert island mic



BEYERDYNAMIC M 160

One-of-a-kind super-rugged double-ribbon hyper-cardioid mic



PELUSO 22 251

A classic and coveted tube mic design with modern enhancements



Tech // reviews

THREE COMPLIANCE METERING PLUG-INS

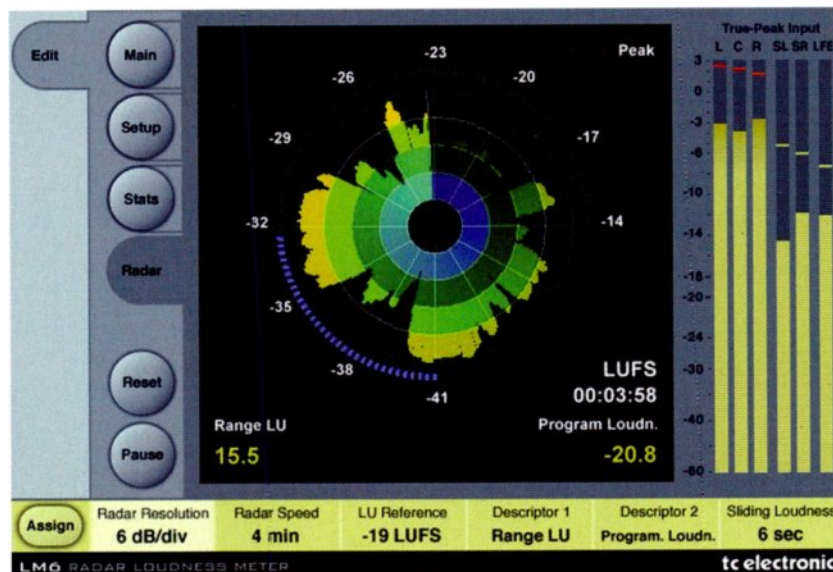
Several years back, the International Telecommunication Union (ITU), composed of engineers from around the globe, issued recommendation ITU-R BS.1770, which described a new style of loudness metering that would measure long-term average loudness in a clear, simple and easily repeatable way. The European Broadcasting Union used this metering method in the creation of its new broadcasting standard outlined in a document titled: R.128. On December 13, 2011, the Commercial Advertising Loudness Mitigation (C.A.L.M.) Act was signed into law in the United States. This law mandated the FCC to recognize and enforce the ATSC's interpretation of ITU-R BS.1770, which is a standard titled A/85.

The standard calls for a style of loudness metering that measures long-term average loudness in a clear, simple and easily repeatable way. All programs must adhere to the network standard within +/- 2 dB. To that end, access to compliant metering is certainly useful during recording and mixing, and essential during mastering. In the U.S., the standard (A/85) is based on -24 dBKFS (long-term, k-weighted, full-scale) while the E.B.U. standard (R.128) uses -23 LUFS (loudness units, full-scale).

TC ELECTRONIC LM6 NATIVE PLUG-IN

One of the first meters designed in accordance with ITU-R BS.1770 was the TC Electronic LM6 meter for use with its System 6000 multichannel digital processing platform. Due to demand from non-6000 users, TC Electronic issued the LM5 TDM plug-in for use with Pro Tools HD only. It was a sleek, screen-space-conscious interpretation of the original LM6, in plug-in form. Now, TC offers the LM6 Native plug-in, which will run as VST, Audio Units, AAX, RTAS and, with the Version 1.2 update, AudioSuite. Interestingly, this new plug-in seems to have been ported over from the 6000 version, instead of being based on the LM5. This being the case, it takes up a bit more screen space than the LM5. On top of that, controls that were originally manipulated by motorized faders on the 6000 Icon remote control are now being controlled by mouse drags, which is sometimes clunky and awkward. That aside, however, this tool has long been popular in its original form for a reason and is welcome in native DAWs.

The most dazzling feature of the LM6 is the large "radar" meter that performs a revolving wipe, showing average loudness



over a long duration. It can be set to span as short as a minute or as long as a day. The decibel resolution can be adjusted to cater to the needs of the particular project. I like to set a finer resolution for spoken word that doesn't vary too greatly in level,

but displays a wider range for more dynamic content. Certainly, watching trends and deviations in this way rivals any other system yet devised for long-term loudness metering, especially when referencing the meter during tracking situations. Rather than looking back and forth between Pro Tools waveforms and the plug-in, the radar's interpretation of the waveform paints a clear enough and meaningful picture on its own.

Wrapped around the radar is a momentary loudness meter, which is particularly useful as a starting point when level-setting and for responding to sudden changes. The user-selected nominal volume is displayed at 12 o'clock on the dial, with the aim being a signal that dances around that mark. Below the radar, to the right and left are two user-selected descriptors. Each can

PRODUCT SUMMARY

COMPANY: TC Electronic
PRODUCT: LM6 Loudness Meter
WEBSITE: tcelectronic.com
PRICE: \$599 direct
PROS: Great-looking visuals.
CONS: Not as streamlined as the LM5.
 Minimal logging.

PRODUCT SUMMARY

COMPANY: Waves
PRODUCT: WLM Loudness Meter
WEBSITE: waves.com
PRICE: \$240
PROS: Clear, simple reference.
Great logging.
CONS: Not as much visual information provided as LM6.

be assigned to one of the following choices: Program Loudness, Sliding Loudness, Loudness Range, Maximum Loudness. These values are listed out to one decimal value, and are displayed cleanly and simply for an easy glance. There are also individual momentary peak meters for each channel of a multichannel mix. These meters display dBTP or "True Peaks." While these vertical bar-graph meters would be displayed in a separate page of the LM5, they are off to the right side of the radar, as they appeared in the 6000 LM6. This, plus the wide vertically oriented page selection buttons along the left side, make the plug-in unnecessarily wide relative to the LM5's small page buttons along the plug-in's bottom.

In addition to the radar page, there is a "stats" page, which displays all pertinent statistics in a clear, concise list. Two additional pages of settings include a variety of available presets that will change the descriptors displayed, nominal level and metering ballistics. Presets include ATSC A/85 compatibility, EBU R.128, the Japanese TR-B32 standards, and presets for CD and cinema mastering based simply on ITU-R BS.1770-3 (the third and most current revision of the ITU recommendation). Besides displaying information in the plug-in itself, a log file is automatically generated upon opening. The LM6 will log the time the plug-in was launched, the duration of audio run through the meter, the peak and average loudness, and when the plug-in was closed. Other compliance meters offer a much greater level of detail in their log files, but certainly this log, if sent along with an audio file, would be sufficient for dialnorm encoding or compliance confirmation. And with that in mind, the included AudioSuite version allows for faster-than-real-time level-checks and logging of premixed files.

The LM6's CPU usage was minimal, and an instance of the plug-in contributed zero samples of delay. After upgrading to Version 1.2, I experienced an easily remedied quirk worth



noting. The automatically created log file will be saved in a destination of your choosing. The default destination after the update, however, was a non-existent folder. Until I either changed the destination or actually created the folder that it was looking for, the plug-in would produce a CPU overload error and pause playback. The only other thing that I found disappointing was the DAW synchronization. The plug-in automatically pauses in sync with the Pro Tools transport and will resume reading when playback is initialized, which is great. But it would be nice if there were an option to automatically reset the meter upon stopping playback and returning to the top. Instead, the radar pauses during a stoppage, but then just picks up where it left off. That said, the LM6 is certainly user friendly and a worthy contender for those looking for an able meter with a broad range of capability.

WAVES WLM

The Waves Loudness Meter is one of the late-comers to the game of loudness metering, and because of that it seems that Waves was able to sit back and learn from the successes and failures of its predecessors. The WLM complies with ITU-R BS.1770, A/85, R.128, and even the TASA leq(M) standard for cinema trailers, which considers frequency-dependent audience "annoyance" levels. The loudness measurement throughout the WLM can be toggled between reading the whole program average, or it can automatically detect when dialog is present and only measure then. It can also measure using the EBU-style gating function that meters only when audio breaks a certain threshold.

The best thing about this meter, though, is its clarity and simplicity. Three large boxes across the top show short-term loudness, long-term loudness and loudness range. Giant

numbers are displayed with no decimals, and then smaller versions with a single decimal are displayed dimly, and below. When loudness hits the target value, a graphic target with a checkmark appears. This couldn't be clearer or easier to read. Just below these value boxes are a pair of horizontal bar-graph meters displaying momentary level and true peak level. Each meter has a peak reading displayed to the right of it. These bar graphs are color-coded to indicate when audio is in the optimal range, when it goes over and when it falls below. Counters indicating the number of overs and unders reside just above these meters. They used a clever trick to log the time of these occurrences without even having to check the log file. The WLM plug-in can write a layer of automation that stays at 50 percent when the audio is in the optimal range, but jumps to 100 percent when an over occurs, and 0 percent when an under occurs. It imparts no sound, but merely allows a quick visual reference.

Below the metering is a box containing all of the user-configurable options. Here, the buttons to toggle between whole program (LM1) or just dialog portions of the program are available. The meter's weighting is manually selectable between ITU-R BS.1770-2, leq(A), leq(B), leq(C) and leq(M). The target loudness can be adjusted, and not only will this change when the target symbol registers in the long-term loudness box, but it will slide a green arrow marker along the momentary loudness meter. The resolution and units of the momentary meter can also be user-adjusted, and will change relative to the weighting curve, as well. Changing the short-term minimum and maximum values will slide where the color-coded over and under areas on the momentary meter exist, and will also change the point at which overs and unders will register. Adjusting the "True Peak Max" will display a red zone on the True Peak meter, displaying overs on that scale.

Other settings include a drop-down menu that gives the ability to change between metering all the channels, any individual channel, or just the L, C, and R, or L and R. Also, a manual equalization curve can be used before the selected weighting curve. I would love it if this settings box could collapse into the plug-in and be shown only when needed. Not only does it eat up a good chunk of screen space, but it is also somewhat distracting from the otherwise streamlined look.

SOUND DEVICES 664 FIELD MIXER

Lightweight, Powerful Mobile Unit Includes Multitrack Recorder



The 664 can be powered by five AA batteries, NiMh, or NP-type batteries.

Sound Devices creates portable recording products that are sturdy, rugged and loaded with connectors, switches and functions. With all features offered in a small, portable and lightweight frame, each of the company's releases seems to instantly fill a role as a new standard in field recording. The new 664 production sound mixer combines features from two of their most popular products, the 552 production sound mixer and the 788T production recorder; it supports SD cards or CompactFlash drives.

FEATURES

The 664 is a 6-input portable mixer featuring six full-size XLR inputs that accept mic or line signals. The stereo mix can be output to a pair of full-size XLR connectors, while redundantly feeding a pair of TA3 mini-XLR connectors, and feeding the stereo audio legs of each of the two Hirose 10-pin connectors (which can be broken out to XLRs using the XL-10 breakout cable). While all of these stereo outputs are being fed the main mix bus, two mono mix buses are also provided, each having its own TA3 connector for output. Additionally, each microphone has a direct output via TA3 connector, which can run at mic level as well as pre- or post-fader line level. All of these analog outputs, from the bus outputs to the direct outputs, are transformer-balanced to keep them as clean and noise-free as possible. Typical of Sound Devices, this goal is successfully accomplished, as noise is not a

consideration at any point in the circuitry of the unit.

The 664 also has eight possible digital outputs. Each of the XLR outputs can pass two channels of AES3, and each of the 10-pin Hirose connectors can pass a pair of AES3 signals. The digital sends don't merely mirror the analog outputs. In the menu, there is a routing matrix page, where any of the eight digital outputs can be fed a mix that includes the left and/or right outputs, either or both of two aux outputs, and any or all of the direct outputs. With that, the possibilities of feeding different recording decks, DAWs or digital inputs of cameras are pretty vast.

The input section also provides a healthy complement of options. In addition to accepting mic or line signals, input connectors 1 and 6 double as AES inputs, which can accept AES3 or AES42 signals. For those unfamiliar with AES42, it is a digital protocol designed to work with microphones that convert A/D signal directly from the capsule, before even boosting them to mic level. The idea is to preserve a cleaner signal by avoiding

TRY THIS

When recording production sound, the expectation is that some audio from the set will be unusable. Because of this, recording dialog in a studio, a process known as ADR is required. Blending the sound of ADR recorded in a completely different environment than the production sound takes isn't always easy. Because of this, it can be quite helpful to record impulse responses on sets or locations where shooting takes place, right to the production sound recorder. These sonic snapshots of spaces can be loaded into a convolution reverb, which can recreate the original ambience and be applied to ADR lines.

PRODUCT SUMMARY

COMPANY: Sound Devices

PRODUCT: 664 Mixer

PRICE: \$4,595

WEBSITE: sounddevices.com

PROS: Clean, honest sound. Feature-packed and easy to use.

CONS: Internal battery power is inadequate. Requires external power.

long analog cable runs, while a secondary purpose is to allow remote control of microphone functions like filtering or built-in limiters. While the 664 provides the standard 10-volt AES42 phantom power and a remote gain control, there is not a comprehensive AES42 remote control system to address additional mic functions. If the six inputs provided on the 664 are not enough to accommodate larger setups, like reality TV shows that use many radio mics, an additional six inputs can be added by connecting an optional CL-6 expansion unit.

Mic pre's on the 664 are not exactly the same as those found in the 302 and 552 mixers. They are a new design, more closely related to the transformerless, transistorized mic pre's found in the 744T, or the USBPre 2. They are clean and essentially colorless, with a very wide dynamic range. Considering the lack of transformers, and that the pre and power supply are housed in such close proximity, I heard no noticeable noise. Likewise, the limiters, which can be engaged across inputs, did an excellent job of preventing distortion without imparting a great deal of color or character. When engaged, they worked at a preset 20:1 ratio with a 1ms attack and 500ms release, perfect for speech.

RECORDING

Besides being an able mixer, the 664 is also a full-featured multitrack production sound recorder. Each of the mix buses can be recorded to its own track, while each of the six inputs can be recorded separately, as well. When adding the CL-6, its inputs can be summed to each mix bus and recorded separately, expanding the track count to 16. Both the SD recorder and the CF recorder can be used at the same time, and every

available track can be recorded to both simultaneously. Alternatively, you can adjust which tracks will feed which media with some degree of discretion. Each card can record everything—just the individual tracks (ISO tracks), just the stereo mix, or just the auxes. This could be very convenient, as an SD card could be used to record the live mix throughout the day and given to the editor to sync dailies, while a large CF drive collects all ISO tracks and reference mixes throughout the day, to be given directly to the post-production audio department.

Each track is recorded with a wealth of metadata. From track names to scene and take numbers to timecode, it's all there, making it very easy to sync the multitracked audio to edited clips during post. When recording, all tracks for a take are stored together in one convenient file. The free Wave Agent software (which you can download from the Sound Devices Website) can take the single file and break it out to individual tracks, which can then be panned, leveled and auditioned within the software. From there, the required tracks can be exported while preserving all metadata.

The 664 can record 16-bit or 24-bit files at either 44.1 kHz, or all-standard, pulled-up and pulled-down versions of 48 kHz necessary to work with film, video or hybrid workflows. The unit can record BWF files or MP3 files. The one thing it can't do is record sample rates higher than 48 kHz. Because of this, it is important to note that this is a great all-in-one tool for production dialog, but will probably struggle to gain favor for sound effects gathering. The ability to pitch and stretch audio without producing artifacts is much desired today, and requires audio recorded at higher sample rates.

CONTROLS

The main controls and meters for the 664 are presented in a menu system on a sun-light-viewable LCD screen. In a departure from the multi-segmented LED meters found on every other Sound Devices product, including the CL-6 expansion unit for the 664, this device uses graphic meters on the display. This new technology offers the same peak and VU ballistics, color coding and indicators for clipping and limiting as the traditional LED meters, but they just



TELEFUNKEN
Elektroakustik

M82 DYNAMIC

ENGINEERED FOR KICK DRUM
AND BROADCAST VOCALS



TWO SWITCHES YIELDING
FOUR UNIQUE VOICINGS

WWW.T-FUNK.COM

WAVES NON-LINEAR SUMMER

Plug-ins Replicate Venerated Consoles With Unprecedented Detail

Oh, how I love plug-ins these days. The latest crop of analog emulators impresses me more than ever.

Waves ups the ante with Non-Linear Summer (NLS), a bundle that virtually Xeroxes the sounds of three classic consoles owned by studio luminaries: Mark “Spike” Stent’s SSL 4000G, Mike Hedges’ EMI TG12345 and a custom-made Neve 5116 in the clutches of Yoad Nevo. The bundle comprises two constituent plug-ins, NLS Channel and NLS Buss, which respectively model the three consoles’ input channels and master buses. Within each plug-in instance, you select which of the three consoles you wish to summon.

The cross-platform NLS is available in TDM, AU, VST, VST3, RTAS and AudioSuite formats and supports 32- and 64-bit hosts. I reviewed the AU plug-ins in Digital Performer 8.01, using an 8-core Mac Pro running OS X 10.8.2.

VARIETY IS THE SPICE

Waves modeled more than 100 individual channels of Stent’s, Hedges’ and Nevo’s distinguished boards to brew up NLS Channel. When you instantiate NLS Channel on your DAW’s mixer insert (typically on the first or last insert for a track) and select which of the three emulated consoles you want to use, one of 32 modeled channels for that particular console is loaded. On each successive instantiation, NLS Channel recalls a different channel of the same analog board. (But if you copy an instance of NLS Channel in your DAW to another mixer channel, you’ll get exactly the same model.) This ensures your project is imbued with the channel-to-channel variations in frequency response, THD, noise and clipping behavior that the circuitry in the real console would impart, rather than painting every channel with exactly the same coloration. Inherent latency is only four samples (inaudible).

The second component plug-in in the NLS bundle, NLS Buss, should be placed on an insert for your master bus or an aux chan-



Fig. 1: NLS Channel lets you choose the console type, channel model, mic- or line-input selection, drive amount, output gain and VCA group.

nel (for example, a subgroup for drums).

NLS Channel offers an easily grasped control set (see Fig. 1). The Studio button selects the console type, Drive adds harmonic distortion (while simultaneously decreasing headroom), output adjusts gain (up to ± 12 dB) and VCA Group assigns the plug-in instance to a group. You can unlink a stereo instance of NLS Channel so that its left and right channels don’t recall exactly the same model. Click on the mic switch to simulate mic-input level (rather than the default line level), changing the plug-in’s headroom. The plug-in’s bypass button nulls the model’s frequency response, harmonic distortion and noise. You can also turn modeled noise on or off separately for each plug-in or its group. VU-style meters show peak output levels, with 0 dB (needle full

right) ostensibly equating to full-scale signal.

NLS Buss offers the same controls as NLS Channel, with the following exceptions: a Trim control is substituted for the output-gain knob, and there is no link or mic switch. The trim control boosts or attenuates gain up to 12 dB.

You can group multiple NLS Channel and Buss instances for simultaneous control of their common parameters: drive and trim amounts, console type, and bypass and noise activation. The groups—as many as eight—are viewed and managed in a VCA Group Console display you can open from within each plug-in’s GUI (see Fig. 2). Each group can be named (for example, “Drums”).

Plug-in instances within the same group can use the same or different virtual consoles; this allows control over their common parameters while retaining their unique console selections. A group’s drive and trim settings offset (add to or subtract from) the values of the respective control settings for its constituent plug-in instances. For example, if the kick drum’s drive setting is set to +3

TRY THIS

Color tracks for drums and electric instruments with heavily driven Mike and Nevo models. Use the Spike model with light processing on acoustic tracks and vocals. The contrast between luster and clarity will give your mix flattering depth.

and its VCA Group's drive value is -1, the kick's actual drive value is +2 (3-1=2). An individual plug-in's noise and bypass settings are overridden by those made for their group. Only one group can be automated in any given session.

BOARD WALK

As I instantiated NLS on successive tracks, a different NLS mixer channel was automatically chosen for each instance, and its console type and channel number (for example, "Nevo 02") was conveniently displayed in NLS workspace A. Nice!

NLS used my CPU resources very efficiently: Use on more than 40 tracks (along with over 30 other plug-in instances) in 64-bit mode never caused the processing meter in DP8 to spike or clip.

Boosting NLS's drive controls also increased output gain. I used the trim controls to compensate. There was no way to link the drive and trim controls (on either the individual plug-in or its group), nor was there any auto-gain compensation for the drive effect, so I had

to constantly reset the trim after adjusting the drive up or down for the saturation I wanted. The plug-in's meters have slow ballistics and can miss transient peaks, so keep an eye on your DAW's clip indicators; NLS lacks these.

NLS Buss can be assigned to any of the same eight VCA groups as NLS Channel, or to none. This excellent design allows you to audition different console types on your master bus while using NLS Buss' VCA Groups Console display to control the drive, trim, bypass and noise for all NLS Channel groups—all in one window.

OUTSTANDING, VERSATILE SOUND

Inserting NLS Channel on individual tracks, the Mike (EMI console) models sounded fantastic on electric guitar. Driven hard, they produced gnarly, authentic-sounding, transistor-like distortion. The Nevo (Neve) models were my favorite on rock drums and bass. Pushed hard, they made the drums sound trashy—without thinning—and the bass burpy. Electric guitars also sounded great on Nevo where I wanted a round but present tone with some



Fig. 2: NLS Buss with the VCA Groups Console display showing in the bottom half of the GUI.

hair on it. Vocals and acoustic instruments sounded beautifully clear with Spike (SSL) modeling, using light processing. These are

IT TAKES talent TO MAKE IT

Talent pro audio stands and cables do their job quietly and reliably, keeping the spotlight on you. Carefully engineered and produced from selected materials, Talent accessories won't let you down. A successful performance does not come easily.

It takes Talent to make it!

Distributed By:

PARTS EXPRESS
Tel: 800-338-0531
725 Pleasant Valley Dr.
Springboro, OH 45066

parts-express.com/mix



Music Stands



Microphone Stands



Microphone Cables

talent
pro audio cables & stands

just a few of the many applications NLS Channel excelled on. The wide compass of tones the drive control produced on the models for each of the three consoles ranged from subtle to drastically distorted. Activating the mic switch on NLS Channel pushed distortion over the top.

Each NLS Buss console—inserted on my master bus in turn—added subtle effect until I raised its drive control about halfway (to “6”). With this setting, Spike sounded the clearest and cleanest of the three models, lending tight bass and open midrange; the downside is it also made some instruments, such as snare drum, sound slightly thinner and paper-y. The Mike model produced a slightly fuller low-midrange and leaner upper-midrange band. It sounded more colorful than Spike; when driven moderately, it lent a subtle spanked sound that firmed up the mix and made high frequencies sound nicely ping-y. Nevo—perhaps my fave—sounded slightly warmer, rounder and fuller than the other two models. Nevo saturated

PRODUCT SUMMARY

COMPANY: Waves
PRODUCT: Non-Linear Summer (NLS)
WEBSITE: waves.com
PRICES: \$249 Native, \$349 TDM (list)
PROS: Superb, highly variable sound. Flexible channel grouping. Low CPU hit allows use on dozens of tracks.
CONS: No auto-gain or trim link for drive adjustments. Meters lack clip indicators.

the highs, making them sound less clinical but also less sparkly. It also brought the mid-range forward (great for guitars!) and tightened the bottom end.

Of the three models, Mike saturated most readily; boosting the drive control too generously produced nasty distortion long before clipping occurred at the DAW’s output. I could drive Nevo and Spike much harder without the mix completely falling apart. At high drive levels, Nevo needed the

least amount of compensatory trim to avoid clipping DP’s output and therefore produced the loudest masters. Spike processing actually reduced headroom; follow it with a limiter or maximizer to make your mix sound louder again.

COMPARED TO WHAT?

The most obvious product to compare NLS to is Slate Digital Virtual Console Collection (VCC). VCC is terrific but sounds relatively subtle; NLS can produce a much wider range of outstanding tones. And because NLS Channel is so efficient in its CPU use, I can use it on far more tracks than VCC. In its favor, VCC automatically regulates its output level for unity gain when its drive control is adjusted, making it much easier to use compared to NLS.

Both products are fabulous, but I have to give the rose to Waves NLS because of its exceptional versatility and superior coding. NLS is the leading-edge plug-in for console emulation. ■

“SIMPLY AWESOME.”

“Lectrosonics gear is built like a Mack truck. We travel the world and in all the time we’ve been using this gear, I’ve never, ever had any issues. Lectrosonics’ durability is, in my opinion, unsurpassed.” - Lorenzo Banda, Monitor Engineer, *Foreigner*

Pictured: Kelly Hansen, Foreigner lead vocalist with the HH transmitter.

LECTROSONICS
 Made in the USA by a Bunch of Fanatics.

QR Code

<< Scan here and Raise Your Wireless Standards.
 www.lectrosonics.com or 1-800-821-1121
 In Canada, call 877-753-2876



For the 2012 Olympics NBC ordered twelve SR5.1MKII's.
CBS ordered four more SR5.1MKII's adding to the twenty five they had.
Networks know the right tool for the job.

**Coleman
Audio**

www.colemanaudio.com (516) 334-7109 coley@colemanaudio.com



SMP 5.1 Now with a new peak indicator to let you know you're clipping.



A/B 5.1 Compare any two surround sources.



SR 5.1MKII Precise level control, individual mutes and fold down to mono or stereo.

NO SPACE? No problem.

Introducing the
**Carousel™ Deluxe
Multi-Guitar Stand**



- Holds 6 guitars (12 with the Expansion Tier) in 36 inches
- Free-standing unit can be placed anywhere in the studio
- Stand rotates for complete access, even in a corner

For more details or to see our other
products go to GuitarStorage.com
267.626.6123

WHAT HAPPENS IN YOUR VOCALBOOTH™ STAYS IN YOUR VOCALBOOTH™



VOCALBOOTH.COM
HEAR THE DIFFERENCE

Professional Portable Performance
Standard and custom sizes up to 16' X 16'

www.vocalbooth.com | 866-330-6045

**HIGH END SOUND
LOW END PRICE**

OVER 60 PRO AUDIO MANUFACTURERS
EXCEPTIONAL CUSTOMER SERVICE
EXPERIENCED TECH SUPPORT

SWEETWAVE AUDIO
WWW.SWEETWAVEAUDIO.COM
877.258.0563

GK **GretchKen Industries, Inc.**
Sound Booths & Noise Control Materials
Custom Design and Manufacturing

"We Make You Sound Good"

*Professional Sound Enclosures *Full Line of Acoustic Products *Excellent Customer Service

www.GretchKen.com
Email: sales@GretchKen.com Phone: 541-947-2602

© Holger Lagerfeldt

GIK Acoustics is the #1 choice for acoustic panels, bass traps, diffusers and room setup advice for recording studios, listening rooms, live auditoriums and home theaters.

GK Acoustics
"Bringing your sound to life"

www.GIKAcoustics.com Toll Free- (888) 986-2789

Vintech

The Vintech X73i!
"I used five X73i's and one X81 to record all of Carlos Santana's guitar tracks for both the 'Shaman' and 'All that I am' albums." *Jim Gaines*
Engineer for Carlos Santana, Stevie Ray Vaughn

The Vintech X73
"I use the X73 for recording Patti Scialfa and Bruce Springsteen in their home studio." *Toby Scott*, Engineer for Bruce Springsteen

THE "X81 CLASS A"
1-877-4-MIC-PRE

The Model 473
www.vintech-audio.com

**THE POWER
TO REACH
YOUR GOALS**

NewBay Media provides the information you need to know — and the audience you need to reach — in the Broadcast & Video, Professional Audio, Musical Instruments, Systems Integration, and K-12 Education markets. Our services help readers, service providers, manufacturers, and associations reach their full potential, and exceed their expectations.

ONE COMPANY. ONE GOAL. YOURS.
Learn more at www.nbmedia.com, or contact Steve Palm, CEO, at spalm@nbmedia.com.

NewBayMedia IN PRINT | ONLINE | IN PERSON

MIX Classified Ads are the easiest and most economical means to reach a buyer for your product or service. The classified pages of MIX supply our readers with a valuable shopping marketplace. We suggest you buy wisely; mail-order consumers have rights, and sellers must comply with the Federal Trade Commission, as well as various state laws. MIX shall not be liable for the contents of advertisements. For complete information on prices and deadlines, call Doug Ausejo (650) 238-0298.

Classifieds

ACOUSTIC PRODUCTS



Acoustics First®
www.acousticsfirst.com

Materials to Control Sound and Eliminate Noise™

Toll Free **888-765-2900**

making the world
sound better
one room at a time

REAL TRAPS
ACOUSTICS

www.realtraps.com



INSTRUCTION

BE A RECORDING ENGINEER

ONLINE COURSE

BRAND NEW online practical training in Multi track Recording. Join our successful working graduates or build your own studio. Career guidance. Diploma. Registered School.

FREE INFO:
ATA Audio Institute of America
www.audioinstitute.com

from San Francisco - USA



VOCALBOOTH.COM
HEAR THE DIFFERENCE

"IT'S A HEAVENLY SANCTUARY"
KIRI COLLINS - ON HER NEW GOLD SERIES GRAMMY NOMINATED ALBUM

480 GOLD SERIES
W/ ALUMINUM FOAM & HARDWOOD FLOOR

866-330-6045
www.VOCALBOOTH.COM



WhisperRoom INC.
SOUND ISOLATION ENCLOSURES

Reducing Sound to a Whisper Since 1990!

WhisperRoom, Inc.
(423) 585-5827 • FAX: 423-585-5831
www.whisperroom.com



EQUIPMENT FOR SALE

VINTECH AUDIO
CLASS A MIC PREAMPS MADE WITH



NEVE™ 1272 COMPONENTS
www.vintech-audio.com
call toll free: 1-877-4-mic-pre

STUDIO FOR SALE

**SOUTHERN CALIFORNIA
WORLD CLASS RECORDING
STUDIO AVAILABLE**

Professional Half Million Dollar Build Out
Beautiful Orange County Location!

Pro recording studio available in Orange County California. This studio was built professionally for approximately a half million dollars. Huge 5.1 control room and also a second large 2.1 control room. Beautiful main live recording area as well as several isolation rooms and booths. World class acoustics and isolation. Equi-Tech balanced power throughout studios. Full AC climate control (two zone). Machine room, storage and workshop area. This offer is for the build out only, no equipment included. Commercial lease take over required. Principals only. Bring your own gear for a turnkey operation. Own your own A/V world class studio business for a fraction of what it would cost to build new! \$169K.

Huge Pro Tools HD system and equipment package also available. Please call or email for more details.
949-307-4675
audiosucker@gmail.com

STUDIO FURNISHINGS

10 space
Rack 'n Roll
\$465 \$0 shipping
in USA
solid mahogany trim

your gear
right
at your
fingertips

blank panels not incl.
studio furniture

ARGOSY®
www.ArgosyConsole.com



SILENT Source

58 Nonotuck St., Northampton, MA 01062
Info: (413) 584-7944 Fax: (413) 584-2377
ORDER: 800-583-7174

Silentcore Fabric Panels •
Sound Barrier • Isolation Hangers
Tube Traps • Primacoustic •
WhisperWedge • ProFoam • Clearsonic
• Hushfoam • R.P.G. Diffusers •
Sonex • Sound Quilt • More

www.silentsource.com
info@silentsource.com

QUALITY • PRICED RIGHT • INTEGRITY

To advertise
in Marketplace
or Classifieds
contact
Doug Ausejo
650.238.0298
dausejo@nbmedia.com

For the latest
industry news
visit
www.mixonline.com

Subscribe to
MIX
www.mymixmag.com

Industry leader in
sound control
solutions for doors
and windows.

ZERO INTERNATIONAL
zerointernational.com
718-585-3230



Go mobile with your MOTU studio

Run Digital Performer 8 and MachFive 3 on the new Apple MacBook Air, control your audio with the elegant one-touch Track16, then add the latest advances in studio technology.



Apple MacBook Air Anything but lightweight

Sure, MacBook Air is unbelievably thin and light. But Apple also designed it to be powerful, capable, durable, and enjoyable to use, with enough battery life to power your entire MOTU mobile studio. That's the difference between a notebook that's simply thin and light, and one that's so much more.

MOTU Track16

Desktop audio I/O with effects and mixing

Track16 offers elegant one-touch operation: press an input or output and turn the knob. It's that simple. With plenty of I/O available for a well-equipped mobile MOTU studio, Track16's pristine mic preamps, balanced line-level audio connections, and renowned MOTU engineering deliver world-class audio quality.



Novation Launchkey Next-gen USB/iOS controller

The Launchkey 49 gives you cutting-edge control over your MOTU mobile studio with 49 smooth, synth-weighted keys, nine faders and buttons, eight encoders, dedicated transport controls, and 16 velocity-sensitive multi-color trigger pads.

Available in 25, 49 and 61 key versions.



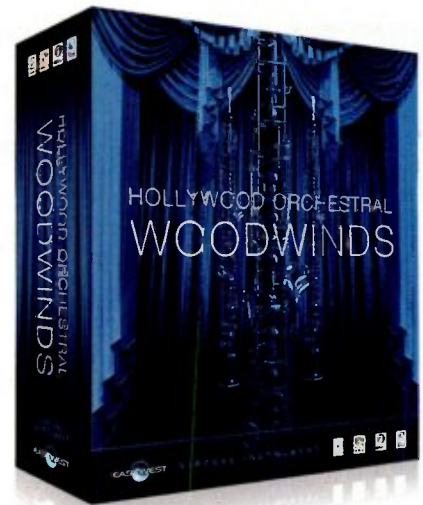
Value Added
Reseller
Professional Audio

MOTU

World Radio History

EastWest Hollywood Orchestral Woodwinds Diamond and Gold Editions

From award-winning sound engineer Shawn Murphy (Star Wars Episode II and III, Jurassic Park, Titanic, and many other blockbusters), Hollywood Orchestral Woodwinds is the most detailed collection of orchestral woodwind instruments ever assembled. Instruments include Alto Flute, Bass Clarinet, Bass Flute, Bassoon, Clarinet, Contra Bass Clarinet, Contra Bassoon, Eb Clarinet, English Horn, Flute, Flute 2, Oboe, and Piccolo Flute. Advanced features include true legato intervals at 2-3 dynamics, true connected legato repetitions, true double tonguing for all instruments and sections, expressive sustains, 9-way staccato and staccatissimo round robins at three dynamics, and much more.



Shure Beta 181 Stereo Set Ultra-compact side-address instrument mics

Designed for discreet placement and control in live or studio environments, the Sweetwater-exclusive Beta 181 Stereo Set includes interchangeable cardioid, supercardioid, omnidirectional, and bidirectional capsules for superior versatility. The small-diaphragm design provides superior audio with consistent, textbook polar response in a form factor small enough to get close to the source in the tightest conditions. High SPL handling, ultra-smooth frequency response, and interchangeable polar patterns make this the perfect stereo mic pair for any technique in the book. This must-have mic bundle comes with two mic bodies and eight capsules in a custom case.

Genelec 8040A

Active bi-amplified studio monitor

With performance comparable to much larger systems, but in a compact package, the bi-amplified Genelec 8040A is ideal for use in MOTU studio situations where wide frequency response is needed but space is limited. Use the 8040A for nearfield monitoring in project/home studios, edit bays, broadcast and TV control rooms, and mobile production vehicles.



Sweetwater®

Music Instruments & Pro Audio

(800) 222-4700
www.sweetwater.com



AAA: AVID APPLE ANTICIPATION

By Kevin Becka



If any of the numerous rumors I've heard are true, April should be the month when Apple releases its long-awaited MacPro tower upgrade and Avid launches Pro Tools 11. Both companies can rest assured that pro users will treat the releases as a barometer of just how tuned in they are to our needs and how the changes will affect our wallets.

Apple disappointed tower users last June with an update that was largely viewed as soft, with the last significant upgrade coming in 2010. The "new" towers stuck with the older Westmere processors instead of incorporating Intel's latest Sandy Bridge E, plus there was no jump to USB 3 or Thunderbolt, which the company has been offering on its laptops since early 2011. So expectations are high that Apple will not only play catch up but also exceed expectations. But there may be reason for concern, not the least of which is that according to 9to5Mac.com, sales of Mac Pros at Apple Europe online stores was to end March 1 because of non-compliance with new regulations.

Trust from high-end users is at an ebb because of recent moves signaling that the company is moving away from pro in deference to hot consumer markets for the iPad, laptops, iPhone and a hype-specified iWatch. Some of Apple's recent behavior supports this argument. According to Russ Hughes of *Pro Tools Expert*: "The (Apple) EMEA [Europe, Middle East, and Africa] team responsible for nurturing and supporting the pro studios, post facilities and TV has gone from 12 to 2 in a matter of months." On the software side, there hasn't been an update of Logic Pro since mid 2009, and Apple's Final Cut Pro X last year, which the company called a "revolution in creative editing," was largely panned by the pro video community.

There has also been a shift in GUI philosophy heralded by the fusion of OS X and iOS, with changes that in my opinion are a move backward, making the user experience less friendly than in past upgrades. One of the more obvious: "Save As" now takes more mouse clicks. There are many more examples.

So what will the new tower bring? There are a few things I believe you can count on. There will be no optical drive, no FireWire 800 and Apple will add USB 3 and some kind of flash memory in place of a mechanical drive. The biggie for audio users is—gasp—fewer PCI slots in favor of Thunderbolt I/O. This means Apple can build a slimmer, trimmer box, but for audio pros it means

added investment to get PCIe cards into and out of the computer.

So while everyone has an opinion on the best feature set for pro use, it won't matter once the new tower comes out. Apple is Apple, and with very few exceptions, the company hasn't backtracked once they decide on their vision of the future, no matter if you're a consumer or pro.

Moving on to Pro Tools, there is reason to like a 64-bit proficient DAW from Avid. Especially for those using virtual instruments, large sample libraries or integrating video into their Pro Tools session workflow—it's all about RAM. DAWs like CakeWalk, Nuendo, Cubase and SONAR have been on the 64-bit train for some time, and users expect this kind of performance. For a great look at the 64-bit plus and minus argument in detail, see Michael Cooper's feature in the September 2012 *Mix*.

For most users, the main reason for a jump to 11 will be access to a larger amount of RAM. The memory limit of a 32-bit DAW is an anemic 4 GB, while the theoretical limit of a 64-bit DAW is a whopping 128 TB. It doesn't have to be the extreme that gets you better performance: 16 GB or even 32 GB gives you a lot more power and is more affordable than ever. More memory gives you plenty of space for RAM caching a session, loading some VIs and having leftovers for other essential operations.

One concern for the wallets of users will be the death of RTAS in the new 64-bit software. AAX is backward-compatible with Pro Tools 10 for Pro Tools HD users using the new HDX card, but RTAS is going away. This is inevitable and not such a bad thing; there is a quality hit when sharing sessions between Native and DSP-powered systems using RTAS plug-ins. So overall compatibility between systems is better, plus AAX enables manufacturers to develop more powerful plug-ins.

The total price of AAX upgrades is largely unknown at this point, as there are some manufacturers still not offering upgrades and others opting for an alternative to running AAX on HDX. This is an added expense but relieves users from having to upgrade to newer Avid HD I/O for the time being as Pro Tools 11 is rumored to be a possible cutoff for backward compatibility to older I/O.

Whew! So much to think about. Like most major upgrades, you can't please everyone, and there will be disappointments. By the time you read this, the news should all be in and there will be smart moves to be made, whether it means sticking with what you have or jumping to new and more capable systems. ■

Thank You...

...for making Radial part of your show!

J48 Active DI
Phantom powered with lots of headroom. Perfect for bass and guitars.



JDI Passive DI
Jensen transformer, stereo to mono summing, super smooth sound.



JDX Amplifier DI
Captures amp head and cabinet for greater consistency night after night.



JPC Computer DI
Stereo interface designed to keep PC noise out of the PA system.



ProD2 Keyboard DI
Smooths out the harsh digital edge and delivers tons of warm vintage tone.



J+4 Line Driver
Steps up low output stereo devices to deliver extra kick and punch.



Twin-Iso Line Isolator
Eliminates hum and buzz caused by ground loops in the PA. Jensen transformers.



SGI Signal Driver
Run guitar signals super long distances without losing any of your tone.



- | | | | | | | |
|------------------------|-------------------|-----------------|-------------------|--------------------|-------------------|---------------------|
| AC/DC | Celine Dion | Faith Hill | Jim Messina | Lee Ann Womack | Paul Simon | Sonic Youth |
| Adele | Charley Pride | Flecktones | Jimmy Haslip | Letterman Show | Peter Gabriel | Spice Girls |
| Adrian Belew | Cheap Trick | Fleetwood Mac | Joe Nichols | Lenny Kravitz | Phil Keaggy | Steve Bailey |
| Aerosmith | Chicago | Flogging Molly | Joe Satriani | Linkin Park | Pink Floyd | Steve Earle |
| Alice Cooper | Chick Corea | Foo Fighters | Joe Walsh | Los Lobos | Placebo | Steve Lukather |
| Alicia Keys | Chayanne | Foreigner | Joey DeFrancesco | Lou Reed | The Police | Steve Miller |
| Alison Krauss | Chris Cornell | Frank Gambale | John Frusciante | Lucinda Williams | Porcupine Tree | Steve Morse |
| Alterbridge | Christopher Cross | Franz Ferdinand | John Hyatt | Macy Gray | Prince | Steve Stevens |
| America | Chuck Leavell | Garbage | John Jorgensen | Manhattan Transfer | The Prodigy | Steve Winwood |
| American Idol | Chuck Rainey | Gavin Degraw | John Mayer | Manowar | Queensryche | Sting |
| Amy Grant | Cyndi Lauper | Genesis | John Patitucci | Marcus Miller | Radiohead | Stone Temple Pilots |
| Anberlin | Cirque Du Soleil | George Duke | John Petrucci | Mariah Carey | Randy Bachman | Story of the Year |
| Ani DiFranco | Clay Aiken | George Lynch | John Rzeznik | Marillion | Randy Kohrs | Styx |
| Animal Collective | Clint Black | Gino Vanelli | Johnny A | Marilyn Manson | Randy Travis | Sum 41 |
| Annihilator | Coldplay | Glen Campbell | Johnny Hallyday | Mark Egan | Rascal Flatts | System of a Down |
| Antoine Dufour | Colin James | Godsmack | Joni Mitchell | Mark Knopfler | Ravi Shankar | Ted Nugent |
| April Wine | The Corrs | Gomez | Josh Groban | Mark Tremonti | Razorlight | Three Doors Down |
| Audioslave | Creed | Goo Goo Dolls | Josh Turner | Maroon 5 | R H Chili Peppers | Timbaland |
| Avenged Sevenfold | Crowded House | Good Charlotte | Journey | Marty Stuart | REM | Tom Cochrane |
| Avril Lavigne | Damien Rice | Gov't Mule | Juanes | Matchbox 20 | Rickie Lee Jones | Tom Coster |
| Backstreet Boys | Dandy Warhols | Grand Ole Opry | Justin Bieber | Meatloaf | Ricky Scaggs | Tom Jones |
| The Band | Daniel Lanois | Great Big Sea | Justin Timberlake | Megadeth | Rihanna | Tom Waits |
| Barbra Streisand | Darryl Stuermer | Gregg Allman | Kaiser Chiefs | Melissa Ethridge | Ringo Starr | Tommy Emmanuel |
| Bare Naked Ladies | Dave Larue | The Guess Who | Kanye West | Merle Haggard | Robert Randolph | Tommy Lee |
| Barry Manilow | Dave Matthews | Guns & Roses | Kasabian | Metallica | Rod Stewart | Tony Levin |
| Beach Boys | David Gilmore | Gwen Stefani | kd Lang | Michael Bolton | Rolling Stones | Tony Rombola |
| Beastie Boys | Davy Knowles | Hall & Oates | Keb' Mo' | Michael W Smith | Roscoe Beck | Toots & the Maytals |
| Beck | Decemberists | Hanna Montana | Keith Urban | Moist | Roxette | Tragically Hip |
| Bela Fleck | Def Leppard | Herbie Hancock | Kellie Pickler | Mötley Crüe | Rush | Travis Tritt |
| Ben Harper | Derek Trucks | Him | Kenny Chesney | Motorhead | Ryan Adams | U2 |
| Bette Midler | Destiny's Child | Hoobastank | Kenny G | Muse | Sam Roberts | Van Halen |
| Billy Idol | Devin Townsend | Hot Hot Heat | Kenny Loggins | My Morning Jacket | Sammy Hagar | Vanessa Williams |
| Billy Joel | Dimmu Borgir | House of Blues | Kerry King | Nathan East | Santana | Victor Wooten |
| Billy Ray Cyrus | Disney | James Taylor | The Killers | Nelly Furtado | Sarah McLachlan | Vivian Campbell |
| Billy Sheehan | Dixie Dregs | Jamie Cullum | Kings of Leon | Neville Brothers | Scissor Sisters | Weezer |
| Bjork | Dolly Parton | Jamiroquai | Kirk Hammett | Nickelback | Seal | White Stripes |
| Black Crowes | Donna Summer | Janet Jackson | Kitaro | Nine Inch Nails | Shakira | The Who |
| Black Eyed Peas | Donny Osmond | Jars of Clay | The Klaxons | Oak Ridge Boys | Sheryl Crow | Will Lee |
| Blue Man Group | Doobie Brothers | Jay Leno Show | Korn | Offspring | Simple Plan | Will I Am |
| Bob Dylan | The Doves | Jeff Beck | KT Tunstall | Oz Noy | Skunk Anansie | Wyclef Jean |
| Bob Geldof | Dream Theater | Jennifer Lopez | Lady Antebellum | Panic at the Disco | Slayer | Xavier Rudd |
| Bonnie Raitt | Duke Robillard | Jerry Douglas | Lady Gaga | Pat Metheny | Slipknot | Yellowcard |
| Bootsy Collins | Duran Duran | Jet | Lamb of God | Pat Travers | Smashing Pumpkins | Yellowjackets |
| Boston Pops | Dwight Yoakam | Jethro Tull | Laurence Juber | Paul Anka | Snow Patrol | Zac Brown |
| Brad Paisley | The Eagles | Jewel | Leann Rimes | | | |
| Brent Mason | Econoline Crush | | | | | |
| Britney Spears | Edgar Winter | | | | | |
| Bruce Springsteen | Elliot Scheiner | | | | | |
| Bruce Swedien | Eminem | | | | | |
| Bryan Adams | Emmylou Harris | | | | | |
| Buddy Guy | Enrique Iglesias | | | | | |
| Butch Walker | Eric Clapton | | | | | |
| California Guitar Trio | Eric Johnson | | | | | |
| Casting Crowns | Erykah Badu | | | | | |
| CeCe Winans | Extreme | | | | | |

Copyright © 2011 Radial Engineering Ltd. Appearance, specifications, and artist/user list subject to change without notice.



Radial
engineering

...true to the music™

www.radialeng.com

*The above is a partial list of artists and sound companies that use or have used Radial products. No endorsement is offered or implied by their being listed here. Sorry if we've missed you - let us know and we'll include you next time!

1588 Kabet Way, Port Coquitlam BC, V3C 5M5 tel: 604 942 1001 email: info@radialeng.com

World Radio History

“TRACK 16 HITS IT *OUT OF THE PARK*”

— HARMONY CENTRAL

“SPARKLING, TRANSPARENT SOUND”

— KEYBOARD MAGAZINE



TRACK 16

- **Hybrid connectivity** — connects to any Mac or PC with USB or FireWire.
- **8 x 6 analog** — includes 2 mic ins, 2 guitar, and balanced line ins/outs.
- **Studio-grade audio** — record with clean, transparent mic preamps and professional balanced connectors.
- **One-touch operation** — just tap the input or output you want to control. Backlit buttons are easy to see in dark studios or stage environments.
- **Optical I/O** — stereo TOSLink, 8-ch ADAT, or 4-ch SMUX @ 96K.
- **MIDI I/O** — connect any MIDI gear.
- **CueMix software** — control 8 mixes and FX with simple tabbed interface.
- **Across-the-board compatibility** — works with your favorite audio apps.
- **Optional breakout box** — same connectors as the included Track 16 cable in a compact, sturdy enclosure.