HOT NEW EFFECTS PLUG-INS!

eq™

www.eqmag.com

12 Vocal Session Tips

Fixing Foul Piano Tracks

MGMT

On Recreating the Sounds of Psychedelia

JUNE 2010

NewBay Media

$5.99 CAN $6.99

A MUSIC PLAYER PUBLICATION

from One Kit

Once in a while, a product comes along that shatters convention, shakes up the status quo and turns heads- even in crowded markets. Check out the next step in recording evolution...

CI 2

ADVANCED INTEGRATION USB STUDIO

INCLUDES CUBASE AI5!

Control plus I/O > AI Knob > Interactive Recording functionality >
Two top quality 48V phantom mic inputs > USB bus powered >
Deep integration with world's top DAW software (Cubase 5) >
Ships with the highly featured Cubase AI5 >
All at a price that will astound you! >

Mac OSX and Windows XP/Vista/7 compatible

steinberg
Creativity First

www.steinberg.net/ci2

THE NEXT EPISODE.

MASCHINE is the next episode in professional beat production. It combines the hands-on feel and sequencing of classic grooveboxes with advanced sampling, effects, and seamless DAW integration. New features include 6GB of production-ready sounds, MPC library import, 16 Levels, and vintage MPC60/SP 1200* character – over 50 enhancements in all. MASCHINE continues to evolve so you can focus on creating the perfect beat.

www.native-instruments.com/maschine

NATIVE INSTRUMENTS

THE FUTURE OF SOUND

JUNE 10

CONTENTS

FEATURES

PUNCH IN

TECHNIQUES

GEARHEAD

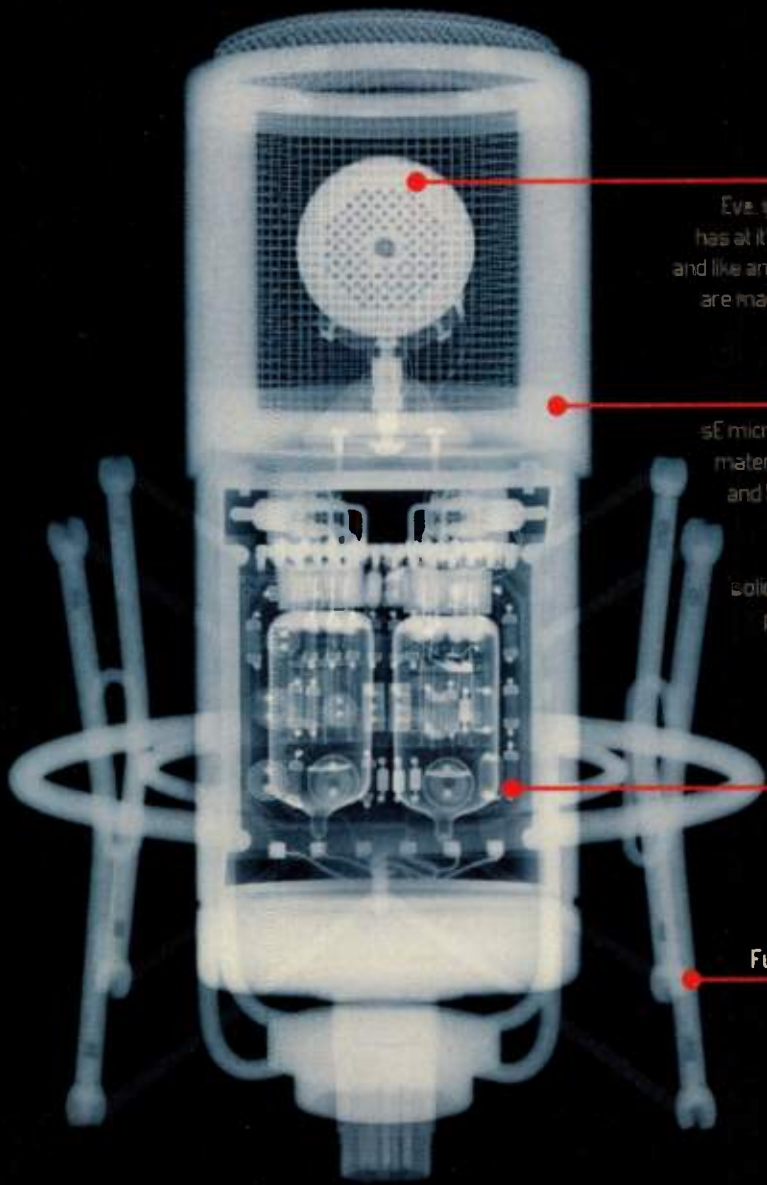
POWER APP ALLEY

DEPARTMENTS

Cover photo by **Josh Cheuse**

It's in the detail

GIL NORTON
FOO FIGHTERS, PIXIES, GOMEZ
TONY PLATT
BOB MARLEY, AC/DC, THIN LIZZY
STEVIE WONDER
SVEN LENS
SNOOP DOG, WILLIE NELSON
TROY VAN LEEUWEN
QOTSA, A PERFECT CIRCLE, SPIRITUALIZED
ADRIAN BUSHBY
U2, FOO FIGHTERS, NEW ORDER
JACKNIFE LEE
REM, SNOW PATROL, GREEN DAY
DOM MORLEY
AMY WINEHOUSE, MARK RONSON
ENDA WALSH
U2, SHANE MACGOWAN, CORRS
DON WAS
BOB DYLAN, THE ROLLING STONES
JOHN MERCHANT
BEE GEES, BARBRA STREISAND
CHRIS PORTER
PET SHOP BOYS, TINA TURNER
BT - BRIAN TRANSEAU
BT, DAVID BOWIE, TORI AMOS
BRENDAN BENSON
RACONTEURS, BRENDAN BENSON
PAUL BARRETT
QUINCY JONES, U2, FRANK SINATRA
GUY CHAMBERS
ROBBIE WILLIAMS, JAMES BLUNT
GEOFF DUGMORE
JEFF BECK, JAMES BLUNT
ROGER LYONS
NEW ORDER, BEE GEES, OLIVE
STEVE LEVINE
THE BEACH BOYS, THE CREATURES
PAUL HERMAN
FAITHLESS, NATASHA BEDINGFIELD
ALAN BRANCH
BLUR, PRIMAL SCREAM, U2
STUART CRICHTON
PET SHOP BOYS, KING, KYLIE MINOGUE
PAUL MERTENS
BEACH BOYS, PET SOUNDS, STONE ROSE
NICK FRANGLEN
LEMONJELLY, PRIMAL SCREAM, JOHN CALE
ROB HARRIS
JAMIROQUAI, KYLIE MINOGUE
JAMES MURPHY
LCD SOUND SYSTEM
ALAIN JOHANNES
ELEVEN, QOTSA, SPINNERETTE
ERIC VALENTINE
ALL AMERICAN REJECTS, QOTSA
JAMIE CULLUM
GRAHAM PATTISON
SPIRITUALIZED, KULA SHAKER, SUEDE
COURTNEY PINE



Hand-Made Capsules

Every sE Electronics microphone has at it's heart a hand-built capsule and like any great instrument, the best are made by hand not by machines

Solid Brass Chassis

sE microphones use the finest raw materials for the best build quality and tone. sE mics are built to last

Hand crafted chassis from solid brass give much improved performance and are built to last longer than traditional cheaper moulded chassis

Discrete Class A Circuits

Hand stuffed circuit boards make high end mics it's that simple

Full Range of Accessories

We offer a full range of accessories including stands, pop shields and acoustic products

FINGERPRINT AUDIO

Contact: 512 847 5696
www.fingerprintaudio.com
sales@fingerprintaudio.com

10 YEARS

sE

Sound Engineering
www.seelectronics.com

Talk Box

OPPORTUNITIES

Times are tough for big studios—many of yesterday's icons are teetering on the verge of bankruptcy, or out of business. But if you're running a studio as a sideline (and hopefully making money, which gives you the benefits of Schedule C tax deductions), there are more opportunities than ever if you're willing to look beyond the traditional "get-a-band-to-book-time" paradigm.

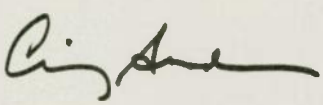
The paramount rule: Find organizations and companies that use audio, but don't have studios. For example, watch some local TV—I bet you'll see a lot of ads with marginal audio. Target a company that advertises a lot, but whose audio needs help; make an appointment, and offer to sweeten one of their commercials for free. Come back in a day or two and play the "before and after" examples, and you just might end up with a nice little income stream.

Go through the Yellow Pages and find companies that do wedding videos. Again, offer to sweeten some representative audio for free, and unless they're totally clueless they'll realize great audio gives them a serious competitive advantage—and they'll hire you. People aren't going to stop having weddings, and the cost of doing wedding videos is sufficiently high that tacking on a few hundred dollars for you to make better audio won't even be noticed.

Consider remote recording of school plays and theater groups. Sure, they tend to do their own recordings, but the audio often isn't very good. If it's a school play, explain how if the school has a pro-level production, they'll be able to sell DVDs to the parents that will not only cover your costs, but make a profit. You might even consider doing the DVD duplication yourself.

And while you're at it, go to local companies that have web sites with videos, and target those that need better audio in their videos or need background music (or sonic logos). In many cases they'll not only pay you, they'll thank you! You may even get hooked up with a video company that likes your work, and hires you for additional projects.

Get the picture? There's a lot of bad audio out there, so why not make it better—and help pay your studio bills at the same time?



Follow us on Twitter!

Craig Anderton	**twitter.com/Craig_Anderton**
***EQ* magazine**	**twitter.com/equpdates**

EQ

www.eqmag.com **Vol. 21 No. 6, June 2010**

Executive Editor Craig Anderton, canderton@musicplayer.com
Editor Kylee Swenson, eqeditor@musicplayer.com
Managing Editor Debbie Greenberg, dgreenberg@musicplayer.com
Contributors Contessa Abono, Kent Carmical, Teri Danz, Tom Luekens, Ken Micallef, Scott Mathews, John Payne, Mosi Reeves, Mike Rozkin, Buddy Saleman, Angelina Skowronski
Art Director Patrick Wong, pwong@musicplayer.com
Staff Photographers Paul Haggard, phaggard@musicplayer.com, Craig Anderton, canderton@musicplayer.com

Group Publisher Joe Perry
jperry@musicplayer.com, 770.343.9978
Advertising Director, Northwest, Northeast, Canada, & New Business Dev. Greg Sutton
gsutton@musicplayer.com, 925.425.9967
Advertising Director, Midwest, Mid-Atlantic, & Southeast Jessica Sullivan
jsullivan@musicplayer.com, 661.255.2719
Advertising Director, Southwest Albert Margolis
amargolis@musicplayer.com, 949.582.2753
Specialty Sales Associate, North Reggie Singh
rsingh@musicplayer.com, 650.238.0296
Specialty Sales Associate, South Will Sheng
wsheng@musicplayer.com, 650.238.0325
Production Manager Beatrice Kim

MUSIC PLAYER NETWORK
Vice President John Pledger
Editorial Director Michael Molenda
Senior Financial Analyst Bob Jenkins
Production Department Manager Beatrice Kim
Director of Sales Operations Lauren Gerber
Web Director Max Sidman
Motion Graphics Designer Tim Tsuruda
Marketing Designer Joelle Katcher
Systems Engineer John Meneses
Assoc. Consumer Marketing Director Christopher Dyson

NEWBAY MEDIA CORPORATE
President & CEO Steve Palm
Chief Financial Officer Paul Mastronardi
Vice President of Web Development Joe Ferrick
Circulation Director Denise Robbins
HR Director Ray Vollmer
IT Director Greg Topf
Director of Publishing Operations and Strategic Planning Bill Amstutz
Controller Jack Liedke

Please direct all advertising and editorial inquiries to:
EQ, 1111 Bayhill Dr., Ste. 125, San Bruno, CA 94066
(650) 238-0300; Fax (650) 238-0262; eq@musicplayer.com

Please direct all subscription orders, inquiries, and address changes to:
800-289-9919, outside the U.S. 978-667-0364,
eqmag@computerfulfillment.com

Back Issues: Back issues are available for $10 each at 800-289-9919, 978-667-0364, eqmag@computerfulfillment.com

EQ (ISSN 1050-7868) is published monthly by NewBay Media, LLC 1111 Bayhill Drive, Suite 125, San Bruno, CA 94066. EQ is a trademark of NewBay Media. All material published in EQ is copyrighted (©) 2010 by NewBay Media. All rights reserved. Reproduction of material appearing in EQ is prohibited without written permission. POSTMASTER: Send address changes to EQ, PO Box 232, Lowell, MA 01853. Publisher assumes no responsibility for return of unsolicited manuscripts, photos, or artwork. All product information is subject to change; publisher assumes no responsibility for such changes. All listed model numbers and product names are manufacturers' registered trademarks.

Canada Post: Publications Mail Agreement #40612608. Canada Returns to be sent to Bleuchip International, P.O. Box 25542, London, ON N6C 6B2.

Periodicals Postage Paid at San Bruno, CA, and at additional mailing offices.

Follow EQ online at:

"I use the J48 everyday. The signal path is clear, punchy, honest and faithful to the sound of the individual player's instrument."

~ Joe Chiccarelli
(Bon Jovi, Tori Amos, Chicago, Annie Lennox, The White Stripes, Frank Zappa)

"Whether we are playing live or recording in the studio, Radial DIs are the only ones we use. They're built like tanks and eliminate noise without killing tone. I love them."

~ John Rzeznik
(Goo Goo Dolls)

"Radial direct boxes make everything I put through them warm, punchy and clear. They are great DI's!"

~ Chick Corea
(Electrik Band, Miles Davis, Return to Forever)

"With the Radial JDI, my bass comes through extremely clean, very quiet, and with a smooth transparent low end. I use my JDI for everything."

~ Tony Levin
(Peter Gabriel, King Crimson, Paul Simon, John Lennon)

"I use Radial gear in my studio on a daily basis and I'm here to say, it performs flawlessly!"

~ Jim Messina
(Loggins & Messina, Poco, Buffalo Springfield)

"The Radial SGI is amazing! It improves your signal over a straight cable. I can run my Vox AC30 into outer space, record from Earth and it doesn't suck."

~ Butch Walker
(Weezer, Avril Lavigne, Pink, NeverShoutNever, All Time Low, Saosin, Fall Out Boy)

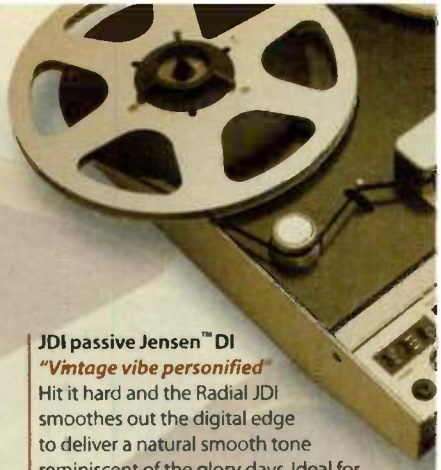
"The JDV is the DI I've been looking for - clean, round, pure bass tone, exquisite build quality yet highly portable – probably the only high-end DI that fits in my gig bags. Nice job, Radial!"

~ Justin Meldal-Johnsen
(NIN, Beck, Garbage, Tori Amos, Black Eyed Peas, Macy Gray)

"It is nice to find great sounding industrial grade equipment still being made today!"

~ Daniel Lanois
(U2, Robbie Robertson, Bob Dylan, Peter Gabriel)

Power Tools™ for Recording!



J48™ active phantom DI
"The go anywhere DI"
The Radial J48 outperforms all other phantom powered direct boxes with lower harmonic distortion, greater phase accuracy and warm even order harmonics. Perfect for bass, electric and acoustic guitar.

JDV™ class-A direct box
"All the tone, no hype"
The Radial JDV's unique feed-forward class-A circuit design delivers purity beyond compare. The ultimate DI box for acoustics, upright, electric bass and more.

JDI passive Jensen™ DI
"Vintage vibe personified"
Hit it hard and the Radial JDI smoothes out the digital edge to deliver a natural smooth tone reminiscent of the glory days. Ideal for active bass, samplers and digital piano.

SGI™ studio guitar interface
"Instant gratification"
Sit in the control room, play guitar and hear the results as you move the mics or change amps. The Radial SGI drives your guitar signal hundreds of feet without loss or coloration and puts you in total control of your sound.

X-Amp™ active re-amper
"Record, re-amplify, rejoice"
Re-amping is easy with the Radial X-Amp. Drive it from your recorder to pedals, amps and effects to create stunning new landscapes. With X-Amp you finally can fix it in the mix!

JDX™ amp and cabinet DI
"Maximum tone right now"
The Radial JDX Reactor captures the signal from the head and the back impulse from the cabinet for a more realistic guitar amp tone. Half-stack emulation delivers perfect tone every time.

Radial engineering

...power tools for power players™

www.radialeng.com

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

SOUNDING BOARD

MAGAZINES ARE MEANT TO BE READ

I have not read your magazine in many months if not years, but read a few articles online every now and then. I understand and know that you are a technology magazine, but I think you've lost sight of what the art of recording is all about. I have a few topic suggestions that I would read if I were a young and up and comer.

Tape recorder basics: A lot of kids don't know the basics of setting up a machine. Do interviews with Mike Spitz at ATR magnetics, Howard Billerman, or Steve Albini who are diehard tape fanatics. Talk about how tape captures performances and Pro Tools compiles them.

Live off the floor: Why it's important to capture a performance of a band as a whole, and the dangers of piecing together a bunch of performances to make one release.

The devils of modern recording: Pitch correction as a crutch, playlists, grid rock, the idea that perfection is more important than the song.

Pro Tools HD is not the same thing as LE: How the mix bus on high-end systems are truly superior.

Rack-mounting vintage console preamps: The do's and don'ts of owning pieces of a console.

The sum of all things: Why a good mixer sounds more realistic and full than average in-the-box summing.

Mythbusters: Dispel some urban legends of audio recording.

Mixing for vinyl: So you've released a record and want it on vinyl—what not to do!

Anthony P. Kuzub

Executive Editor Craig Anderton responds:

With one exception, everything you mentioned has in fact been covered in the pages of EQ. *But as you said, "I have not read your magazine in many months if not years" so it's not surprising you're unaware of* EQ's *content. We did a series called "Myths Revealed" about urban legends, covered mastering for vinyl, interviewed Steve Albini, mentioned Spitz and ATR multiple times, have specifically stressed the importance of music and technique over technology many times in many issues, have Techniques columns every month, etc. As to tape basics, there's plentiful material on the web, and as no new tape machines are being made it's a limited audience at best. Besides, some of what you propose perpetuates the urban legends you want us to dispel—for example, some people use Pro Tools to capture performances, and compiling originated with tape, not DAWs. As to mixing in and outside the box, the only rigorous, double-blind studies I'm aware of showed that even world-class producers and engineers couldn't tell the difference if ITB mixing was done properly. And many feel Pro Tools HD sounds better than LE due to superior clocking and converters, not 48-bit fixed vs. 32-bit float math in the mix bus.*

As to the"devils," those topics have been beaten to death for years in forums and in print; we prefer to present fresh material to our readers. The one suggestion you made that hasn't been covered is rack-mounting console preamps, and that's great idea—thanks!

KUDOS

I want to compliment you on the Spoon and Watson Twins pieces (03/10 issue). Nice writing and good job telling the stories; both articles made me want to buy the albums.

Maureen Droney
Sr. Executive Director/Producers & Engineers Wing

MEET THE FUTURE

First, I'd like to thank *EQ* for being *the* immaculate source magazine when it comes to audio equipment, not to mention your inspiring editorials. I am a young lady attending the Ex'pression College for Digital Arts, getting my BS in Sound Arts. But, it took me a few years to get where I am today. Like any other young girl in America, I have been subjected to a lot of bias when it comes to certain careers that tend to be male-dominated. After I told one guy I was studying audio engineering, he asked if I could help him work on his car!

But . . . I'm not here to be a role model, a female rights activist, or any of those things. I'm just a girl (in the words of Gwen Stefani) who wants to break that pattern. I would like to see more women like me, at any age or any circumstance in their life, stepping into the gift of music. Being in my studio with my friends, whether it's writing music, mixing songs on Logic, or just goofing around, is what keeps me positive.

I used to dream of being a singer and actress, but as I grew up I realized being behind the scenes can be just as gratifying as being in the limelight. I hope one day to be a successful mastering engineer who can make good music better and great artists greater, but who knows . . . I have long way to go. In the words of your executive editor Craig Anderton, though, "music is my gift" and I plan to share it.

Roxy Sabella
San Francisco, CA

Executive Editor Craig Anderton responds:

Thanks for the kind words, Roxy. As someone who masters a lot of recordings, I can confirm it's extremely gratifying to help a musician sound as good as they possibly can. Good luck, and keep up that positive attitude!

Got something to say? Questions, comments, concerns? Head on over to www.eqmag.com and drop us a line in our Letters to the Editor forum, send us an email at eqeditor@musicplayer.com or snail mail c/o EQ Magazine, 1111 Bayhill Dr. Suite 125, San Bruno, CA 94066 for possible inclusion in Sounding Board.

Note: Letters may be edited for length and/or clarity. Direct correspondence by EQ *editorial is not guaranteed. All submissions become the property of* EQ *magazine and can be published in any medium.*

WILD AT HEART

Broken Social Scene's revolving door of musicians make emotional studio decisions

BY KYLEE SWENSON

With seven full-time members, 11 alumni, and eight guests, Broken Social Scene's latest album, *Forgiveness Rock Record*, is truly a collective effort. The Canadian group—from which former members such as Leslie Feist and Emily Haines (Metric) sprouted—has been carefully crafting music with many cooks in the kitchen for the last 10 years.

For *Forgiveness Rock Record*, on their own Arts & Crafts label, they were extra-mindful to leave space for one another while building up each song. It's not always easy, considering that the band has two drummers, two bass players, five guitar players, and sometimes as many as 17 musicians/vocalists on a song.

"We try not to overplay it and leave space knowing that there are going to be other ideas," says guitarist Charles Spearin. "We don't know what they are, but there's room for other ideas to go in there, so nobody walks all over everything."

But accommodating lots of layers is something producer John McEntire is used to with his own band, Tortoise, so it wasn't a stretch working with BSS in his Chicago-based Soma Studios. (Sessions also went down at Giant Studio and The Schvitz Studio in Toronto.)

McEntire and the band recorded live in his 12x20-foot studio room, with five people playing basic tracks. But the first tracking session wasn't an ideal setup. "We had a hard time getting the drum sound that we wanted [on "Forced to Love"], and that was one of the most important things in that track in setting the overall tone," McEntire says. "Our first tracking session we had the drums in the iso booth, so we were kind of stuck with these deader drum sounds."

In an effort to combat the issue, McEntire re-amped the drums. "He sent the drums through a Genelec speaker, miked a couple of steel drums, and then blasted it at the steel drums," Spearin says. "Every time the sound from the speaker hit the steel drums, they would ring a little bit, so that added this cool overtone-reverb sound to the drums instead of just adding reverb."

Second-kit drum passes were overdubbed in the big room. "We had one really tight, up-close drum kit in the iso booth, with everything miked individually," Spearin says. "And the second drum kit was set up in the big room with one [AKG] C 414 microphone eight feet away to get the whole sound." The drums were also often routed through an Empirical Labs Distressor "because it has a nice saturation, compression, and distortion," Spearin says.

Sometimes there would be two amps/mics for one guitar part, as with the epic "Meet Me in the Basement," which featured four guitars—some of them doubled or harmonized (for a total of 12 guitar tracks)—double drums, and strings. The band used Victoria, Fender Princeton, Sears Silvertone, and other boutique amps.

Broken Social Scene—(front left to right) Justin Peroff, Kevin Drew, Sam Goldberg, (back left to right) Lisa Lobsinger, Charles Spearin, Andrew Whiteman, and Brendan Canning

"We had to find suitable tones for everybody that were also distinctive enough that there would be places for everything, and then we had to make sure that, either through spatial positioning or EQ, everything was part of the overall soundstage," McEntire says.

Other key gear included an Elka Synthex synth, Neumann M 269 c mic, handmade LA-2A clone, DigiTech Whammy pedal, Pro Tools, and a Trident A Range console.

But not so much influenced by tones and gear, the songs that made it to the *Forgiveness Rock Record* track listing were sometimes surprises. "There were things that we let go of for this sequence that we were sure

DAVE GILLESPIE

that were going to be on the record," McEntire says. "And then there were other things that, literally in the last two weeks of mixing, came back into the picture."

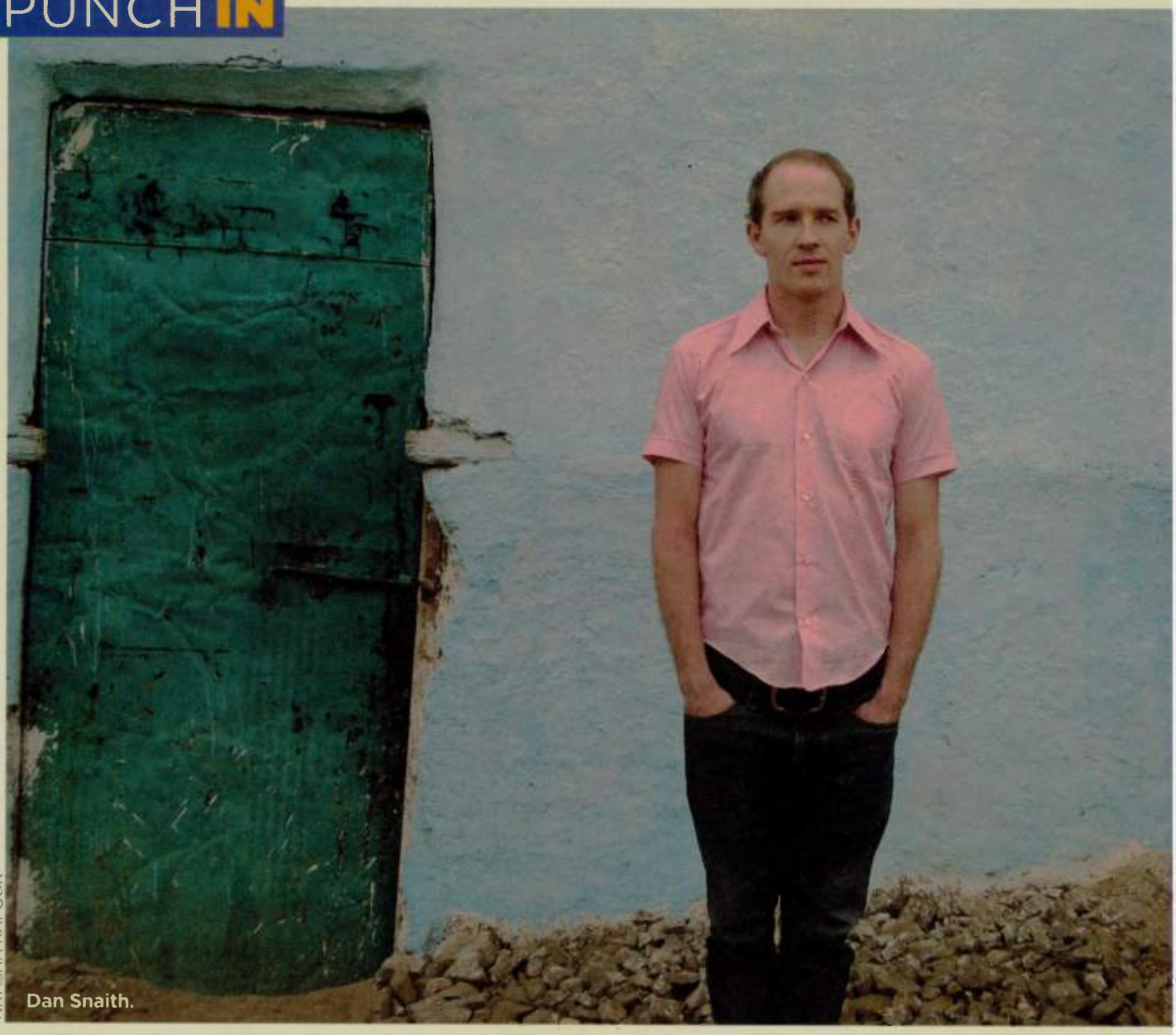
One song that was originally destined to be an instrumental, "Sentimental X's," became a frontrunner after Haines recorded a lead vocal in New York, backed up with harmonies from Feist and Amy Millan (Stars) in Toronto.

The loping, sweetly sad song "Sweetest Kill" started out as a live song, and Spearin wasn't sure that it would translate to the studio. But the band stripped it down. "Two basses, drums, and vocals are what hold the song together," Spearin says. "It has this warm mud feel to it to me. I think [the basses are] hard-panned, so they're a little bit disorienting that way."

And he experimented with the vocal effects on that song. "I took the vocal send through the headphones, held the headphones up to the pickup of my guitar, ran the guitar through this old spring reverb, ran it out through a distortion pedal to just give it a little bit more dirt, and then sent it out through two different amplifiers," Spearin says. "And I played with the tone knob as we did it, so it has this sense of coming in and out of focus." Meanwhile, McEntire used a Marshall Time Modulator to add short 5 to 15ms delays and panned parts around "to create a sense of space," he says.

For a crunchy, less-than-slick vibe on "Ungrateful Little Father," Spearin and McEntire used a Yamaha MT100 II four-track recorder. "We set up three 57s in front of the drums, bass amp, and keyboard amp going straight into the four-track, wrote the tune on the spot, and then a lot of stuff was overdubbed on it," McEntire says. "The idea was to do it as sort of stupidly as possible and not try for any particular results, but just to get it down.

Every experiment they did was driven by feeling rather than technical know-how. "You really have to listen with your emotions instead of your ears because sometimes you can get everything sounding good individually, but you put it together, and it has no emotional impact whatsoever," Spearin says. "You can do anything as long as it resonates with you emotionally." EQ



NITASHA KAPOOR

Dan Snaith.

UNDER WATER

Caribou creates a production concept album based on the sounds of swimming

BY KYLEE SWENSON

Until recently, Caribou's Dan Snaith didn't know how to swim. But his wife got him swimming lessons as a Christmas present, and now when he's not making music, he's in the water. In fact, swimming became the production concept for his latest album, *Swim* (Merge).

Snaith, who has also released albums as Manitoba and has a Ph.D in mathematics, decided to bring the aural effects of water into his compositions. "A big part of the sonic production aesthetic with this album was about having some idea of fluidity or liquidity in the elements of the music," he says. "Everything is washing around your head, flowing around in a way like waves or liquid would, rather than being very metallic or rigid, the way that a lot of sounds in dance music typically are."

When Snaith only knew how to do the doggy paddle with his head above water, he wasn't aware of how sound changed in and out of water. "The

characteristics of water are so different, sonically," he says. "When you're swimming, one ear comes out of the water, then both ears are in the water, and then the other one. So you get the sense of the sonic space as you're in rocking back and forth."

Consequently, musical ideas often came to Snaith while swimming. "I'd think, that would be something interesting to happen: Something appears in one ear in a very crisp, clear sound, and in the other ear, it's kind of reverb-y or echo-y and watery," he says. "And it flips back and forth." Snaith used Ableton Live as his primary engine to modulate parameters for the swimming effect, such as the wavering synth pitch on "Hannibal."

As for his mathematics degree, Snaith says it helps him get creative faster. "I don't mind figuring out, 'Okay, how does this work?' But that's not the interesting part," he says. "The interesting part is what happens once all that stuff is second nature. For example, growing up playing piano, you play all these scales, not because anybody likes playing scales. But having practiced and learned how to play in a certain way, translating your idea into a musical or technical result is easier. And that's what's interesting about mathematics, not the boring part, which unfortunately is all you get when you're in high school."

An Arturia ARP 2600 V soft synth and an M-Audio Axiom 49 MIDI controller helped Snaith come up with ideas quickly, such as the thick layers of metallic synths on "Kaili." "I took the part and made four layers of it, and then I shifted over the second, third, and fourth layers so that they're all happening at slightly different times," he says. "The second comes in slightly after the first one, and the third one comes in slightly after the second one, etc. And then they're all modulating differently—maybe one of the filters is turned down or has some weird vibrato—going around your head, coming in, fading to silence, and then coming back in again."

Miking is a simple proposition for Snaith, with a borrowed Neumann TLM 103 for vocals and a Coles 4038 ribbon mic as one drum overhead. But although he recorded a lot of live drums this time, most of the takes didn't make it to *Swim*, mainly because he wanted to do something different than he'd done on previous releases.

The ringing percussive sounds on "Bowls" were created using just that—bowls. "They're these two Tibetan singing bowls that I got when I spent a month traveling around southwest China last year," he says. "I picked them up, got them home, and sampled them just once. Then I mapped that sound onto a keyboard and played it as if it were a synthesizer."

Meanwhile, the combination of pulsing keyboards and crunchy drums on "Found Out" was created with layers of Fender Rhodes with a slow chorus effect, organ, and orchestral percussion samples meshed with a digital-sounding distortion. And on "Odessa," Snaith sampled a bass note from an old musique concrète record, mapped it onto the Axiom, changed the decay, and played the wobbly, bulbous bass part. "A lot of the sounds on the record are some hybrid of an acoustic sound treated as if it were a synthesizer," he says.

Although originally from Canada—London, Ontario, to be exact—Snaith now lives in the other London (England) and mixed the album with UK engineer David Wrench, as well as Jeremy Greenspan (Junior Boys) back in Hamilton, Canada.

This time, he wanted to create a mix that was exciting, not perfect. "One mix that I always come back to is the Shuggie Otis album, *Inspiration Information*, and the track 'Island Letter,'" Snaith says. "There's a point where a Fender Rhodes melody appears in one ear, incredibly loud. Everything else is so beautifully mixed and recorded and sounds like you couldn't even dream of it sounding anymore lush. And then that comes in totally out of the blue. It's weird moments like that, that always captivate me and make me excited about making music."

Snaith describes his previous mixing process (involving Mackie HR824 monitors) as "messy, idiosyncratic, and sloppy-sounding." But he learned a lot from Wrench and Greenspan. He also made their job more difficult.

"I live on a main street, and there are constantly big buses and trucks going past the window," Snaith says. "So all of the vocal tracks have rumbling and noises in the background, and then I added an echo or a reverb. So when I took these tracks to be mixed, I asked Dave and Jeremy, 'Is there anything that I could have done to make the parts easier for you to work with?' And they said, 'Well, at least get rid of the bus sound *before* you put the reverb on it. Not only is there a bus on the record, but there's a big *reverb'd* bus in the background.'" EQ

PERPETUAL MOTION

Janelle Monáe zigzags between past and future, making found sounds along the way

BY MOSI REEVES


Janelle Monáe

JIRO SCHNEIDER

"Some ideas just take longer," Janelle Monáe says. She's referring to the nearly three-year delay between the 2007 independent release of her debut, *Metropolis Suite I: The Chase*, and *The ArchAndroid*, which finally arrives via Bad Boy Records/Atlantic in May.

When the soul singer and her Wondaland Arts Society first issued *The Chase*, they originally planned to create four EPs. The storyline was inspired by the 1927 silent-film classic *Metropolis*, and centered on the adventures of Cindi Mayweather, an android who falls in love with a human and roams a dystopian future eerily similar to our present. Now, instead of four separate releases, there is *The ArchAndroid*. Imagined as an "emotion picture," it comprises Suites II and III, with the fourth and final suite to arrive later (though hopefully not three years later). *The ArchAndroid*, she explains, "is similar to Neo in *The Matrix*, the One. For the android community, that means all the discrimination and spells that have been on them will be cast away. This deals directly with Cindi Mayweather because she finds out that she is, indeed, the ArchAndroid."

The music on *The ArchAndroid* is reminiscent of OutKast's best work, with surprisingly deft forays into classic soul and pop. Two overtures at the album's beginning and middle mark the suites. Producer Nate Wonder worked on the album with Monáe and Chuck Lightning, and also conducted the Emory University Orchestra (dubbed for this occasion as the Wondaland ArchOrchestra) with fellow Wondaland member Roman GianArthur. "We didn't bring in all the sections at the same time; we would bring in the brass section, woodwinds, and break it up like that," says Wonder, who wrote the orchestra's sheet music using Finale Music Notation Software. "We knew how to write notation, but it takes too long to do it by hand."

Being in the moment was the Wondaland collective's motto. Monáe talks about the songwriting in spiritual terms, and how songs like "Sir Greendown," "Locked Inside," and "Wondaland" emerged as she slept. "There were lots of melodies that came to me in my dreams—Easter eggs that wouldn't have happened if we would have rushed," she explains. One interesting inspiration was science-fiction writer Octavia Butler. "I had started reading *Wild Seed* after we started *The ArchAndroid*, and the main character is extremely relatable to Cindi Mayweather," says Monáe, who promises a forthcoming graphic novel "for those who really want to get into the concept."

To record her dreams in raw form, Monáe, Wonder, and Lightning used the iPhone application Voice Recorder. "I sing out all the parts—the bass lines, the drums, the strings," says Wonder, who admits that the project "wasn't as linear as we hoped for it to be."

With so much experimentation going on, the post-production process became particularly important. He notes that the totemic lead single, "Tightrope" incorporates traditional percussion sounds such as 808 kicks and rim shots alongside exotic hand-drum rhythms such as bongos, congas, and darbuka. They also cataloged found sounds by banging on walls, chairs, and desks, picking it all up with Blue Microphones and recorded into a PC using Cakewalk Sonar software.

"The demo version of 'Tightrope' had an irrevocable urgency that we were determined to preserve above all else," Wonder says. "There were a lot of low-end elements that had to be carefully balanced using panning, gating, and of course equalization. The drums and bass in particular drive 'Tightrope' like a locomotive, so it was important that each of these elements be at the forefront of the mix. We tried running the bass through a Waves Doubler, which actually helped quite a bit with the spacing. Vocally, we wanted to allow the backgrounds—medium-hard pan, high-pass EQ—to feel distinct from the lead, which we ended running through Antares Microphone Modeler and the PSP Vintage Warmer to evoke that raw, [James Brown] 'Night Train' sensation."

Despite an emphasis on spontaneity, *The ArchAndroid* doesn't sound like an expensive lark. The songs are focused and composed, even if the means of writing them was rather unorthodox. "Nate Wonder's a spectacular producer, and Chuck Lightning writes movies and novels," Monáe says. "All of us had ideas, but nothing ever left without us all approving it. That's the system that we go by." EQ

ICING ON THE CAKE.

Neve
GENESYS

Jason,

I've got to tell you, this console is amazing! I set out to find a large format console sound in an affordable package, and the Genesys is it! The classic sound of real Neve mic pre's and EQ are easily worth twice the price. I'm very pleased with its performance, but I must say the icing on the cake has been the exemplary service provided by you and GC Pro.

Thanks again,

Bernie

Jason Cropper
Account Manager, GC Pro

Dale and Bernie Becker
Bernie Becker Mastering
Firehouse Studios
Pasadena, CA

16 Fader, 40 Input Expandable Console with EQ, Recall and Classic Neve Sound

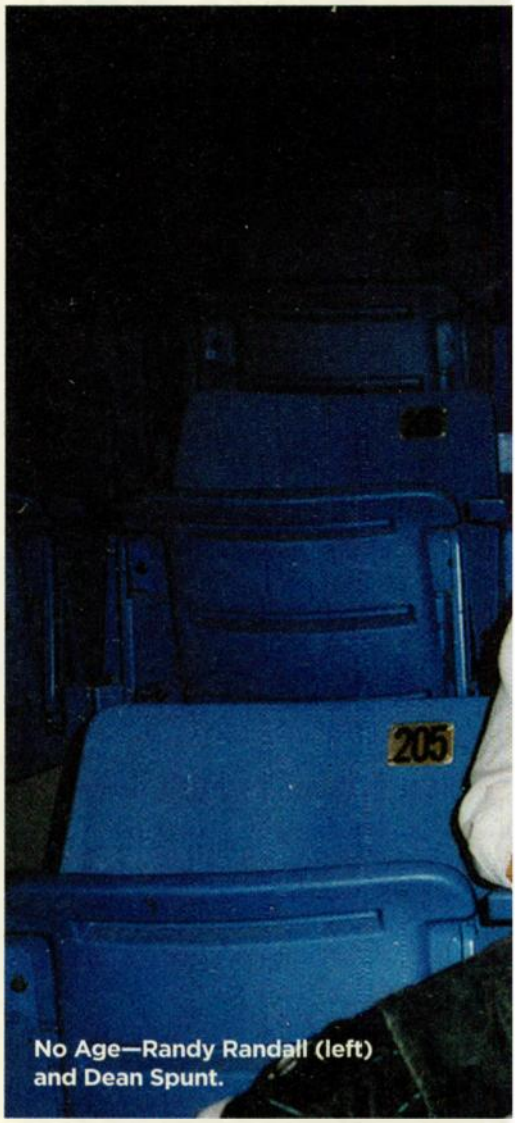
$59,500

EXCLUSIVE USA DISTRIBUTOR

GCPRO

www.GCPRO.com
877-70-GCPRO
(42776)

Guitar Center



No Age—Randy Randall (left) and Dean Spunt.

THIS IS A TEST

No Age on Amp Blending, Re-amping, and New Sampling

BY ANGELINA SKOWRONSKI

Like their last record, *Nouns*, No Age's third full-length album was recorded with engineer Pete Lyman at Infrasonic Sound Recording Company in Los Angeles. But rather than mimicking the success of their sophomore album, No Age decided that this time they'd balance their energetic musical capabilities with new recording skills.

"When we tour, we like to play songs that are more aggressive to get the crowd going. For this album, we sat back and realized we needed more songs that were more progressive, to yin and yang the album," drummer Dean Spunt says.

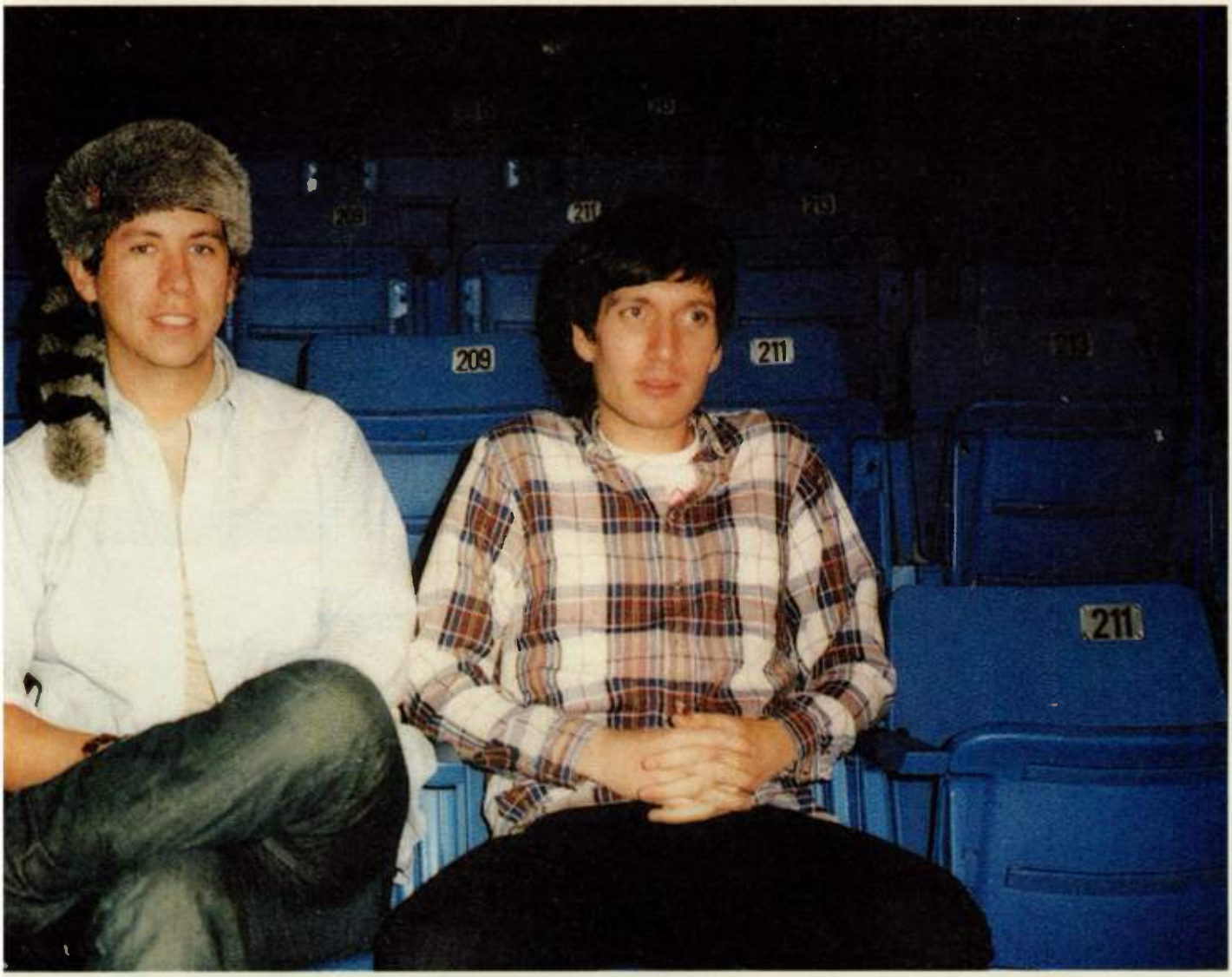
A two-man operation, No Age recorded the bulk of the album—title TBA, out on Sub Pop this fall—live, playing guitars and drums while also triggering samples. "We recorded the intro sounds on 'Aim at the Airport' with an Edirol R-09HR, a handheld WAV recorder, from the luggage carousel at an airport in Australia," Spunt says. "The wave sounds in the end were recorded with the Edirol on the beach in New Zealand." The guys created other samples by meshing guitars, vocals, and keyboards with effects from DigiTech JamMan pedals and onboard effects from a Roland SP-555 sampler.

To mic the drums, Lyman set up a Radio Shack PZM mic taped to the outside of the control-room window, an AEA R84 behind Spunt, a Neumann Gefell UM57 six feet in front of the kit, and two Beyerdynamic M 160s set farther away "and spread wide for a more live-sounding feel," Lyman says.

For his live tracks, guitarist Randy Randall used a Sunn Beta Lead Combo, a Supro, and a small Ampeg bass amp. "He splits the signal at his pedal board so a clean line goes to the bass amp, pre-effects, and the other amps are post effects," Lyman explains.

The tracks were captured to a 2-inch, 16-track Otari MTR90 MKIII machine and then dumped to Pro Tools for overdubs. And an Otari MX5050 1/4-inch machine was used for slapback. "We would mess with the tape as it was recording and then print back into Pro Tools," Lyman says.

After recording basic guitar and drum tracks live, Randall's guitars overdubs involved several amps, including a Sunn Model T and Beta Lead, a Supro, and a Fender Champ. "Sometimes it may be all the amps at once," Lyman



ED TEMPLETON

says. "I use a custom Inward Connections guitar splitter to distribute the signals. We then switch between the amps depending on the sound Randy is envisioning. There are two Coles 4038s about nine feet back in the room during most of the overdubs."

Vocals were recorded through the UM57 into a Shadow Hills preamp on the Steel setting, into an API 550A and a Purple Audio MC77. "During the mix, vocals were compressed again with an Inward Connections Vac Rac compressor," Lyman adds.

After initial tracks and overdubs were recorded, they took the sounds to another level. "They are really into re-amping," Lyman says. "We have re-amped everything: vocals, snares, guitars, drums, samples, etc."

"We like re-amping with samples to catch them again to get nitty-gritty sounds," Spunt elaborates. "We have a Supra Amp from the '60s that we use, and Randy rewired his first amp called a Gorrilla that we use for back tunes. I also have a noise gate that I was getting into and running complete mixes through it to get a weird sound."

The guys sent tracks out of Pro Tools, into a Little Labs Direct/Reamp box, and then into the amp. "The amp was then miked and sent back to Pro Tools," Lyman explains. "The re-amped track was then blended with the raw track, or in some cases it was totally replaced."

Lyman mixed through a Rupert Neve Designs 5088 console, using an Ecoplate and EMT 250 plate for reverb and a DeltaLab Effectron, Roland Space Echo, and Chorus Echo for delay. During mixdown, he bussed guitars through two Neve 1064s and two silver-face 1176s. For more grit, Lyman used his Standard Audio Level-Or as a sub-bus on guitars and also used it for parallel compression on drums. "I inserted the Level-Or on a bus and sent the kick and snare to the bus, as well as the direct out, then blended them to taste," he says.

But Lyman's traditional recording techniques were often challenged. "Their approach is completely different than most bands—they really push me to try things that I wouldn't normally do," Lyman says, referring to recording with old cassette players and being forced to add abundant low end to guitars. "Sometimes it doesn't make sense to me at the time, but I just hang in there to see how it develops, and they're usually right."

TOOLBOX

by Mike Rozkin

All prices are MSRP except as noted.

Boss BR-800

What Digital recorder

Why Touch sensor switches and the ability to record to SD make this a battery-powered studio on the go.

How Includes the convenient Retry function, which re-cues automatically to fix mistakes, and Song Sketch recording for instant, one-touch capture. There's also a built-in stereo condenser microphone, plus a DR-880-quality rhythm generator for adding drum and percussion tracks to your songs. It can also function as a control surface for DAW software.

Price $525

Web www.bossus.com

DPA 4099B/4099C

What Clip mics for bass and cello

Why Opens new possibilities for solo cellists, string quartets, and large string sections sharing the stage with a loud rock band, allowing the delicate nuances of their instruments to be reproduced clearly and distinctly.

How Features supercardioid polar patterns for high rejection and superior gain before feedback. These mics attach to the outer strings, never damage the instrument, and provide a stable mic placement while the artist can move any way they want around the stage and still be in the sweet spot.

Price TBD

Web www.dpamicrophones.com

Milab DC-96C

What Condenser microphone

Why The DC-96C is the latest version of the classic DC-96 series, originally released in 1967, updated with the latest technology.

How Transformer-less cardioid microphone with a single layer mesh grid, 12dB attenuation pad, and 144db maximum SPL. Suitable for studio vocals, acoustic guitar, overheads, guitar amps, and more.

Price TBD

Web www.milabmic.com

Roland CD-2i

What SD/CD recorder

Why Great way to capture the moment and render it to CD or SD memory card for storage and distribution.

How Has the ability to capture CD-quality 16-bit/44.1kHz WAV audio from a variety of sources. Audio inputs include a stereo 1/4-inch, RCA phono, and phantom-powered XLR microphone input. A stereo microphone and speaker are also built in for recording and playback, and a wireless remote allows for off-unit control of playback and recording.

Price $759

Web www.rolandus.com

Wishbone Workshop "The Wishbone"

What Mic stand ideal for amplifiers
Why This mic stand saves time, reduces clutter, and provides precise mic placement.
How By attaching to the handle of most guitar amps, the mic hangs over the amp and stays out of the way.
Price $79.99/$49.99 MSRP/street
Web www.thewishboneworkshop.com

Arturia THE ONE

What Software instrument collection
Why This box set contains all Arturia instruments, and a license for one of them. Try them all, then pick the one you want to authorize.
How Moog Modular V, CS-80V, ARP2600 V, Minimoog-V, Prophet V, Jupiter-8V, Brass 2.0, and Analog Factory
Price $249
Web www.arturia.com

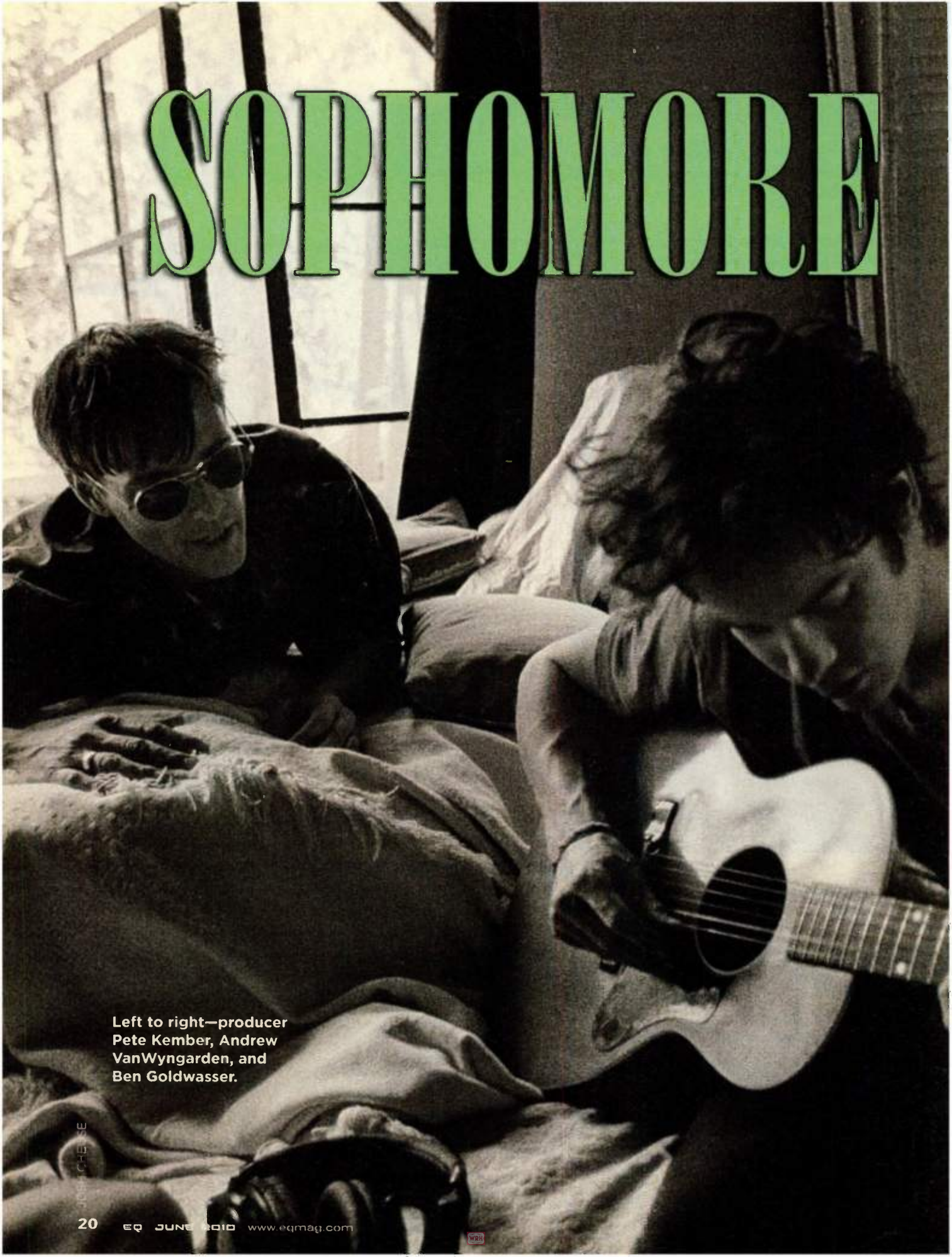
Shure Beta 27

What Condenser microphone
Why It's the only side-address, supercardioid condenser microphone designed for professional sound reinforcement.
How Supercardioid polar pattern specifically targets the sound source which greatly minimizes bleed from off-axis sound sources. Flat, neutral frequency response for natural reproduction on stage or in the studio, a 15dB pad, and three-position switchable low-frequency filter help reduce unwanted stage rumble or counteract proximity effect for consistent, extended low-end.
Price $399
Web www.shure.com

Universal Audio 4-710d

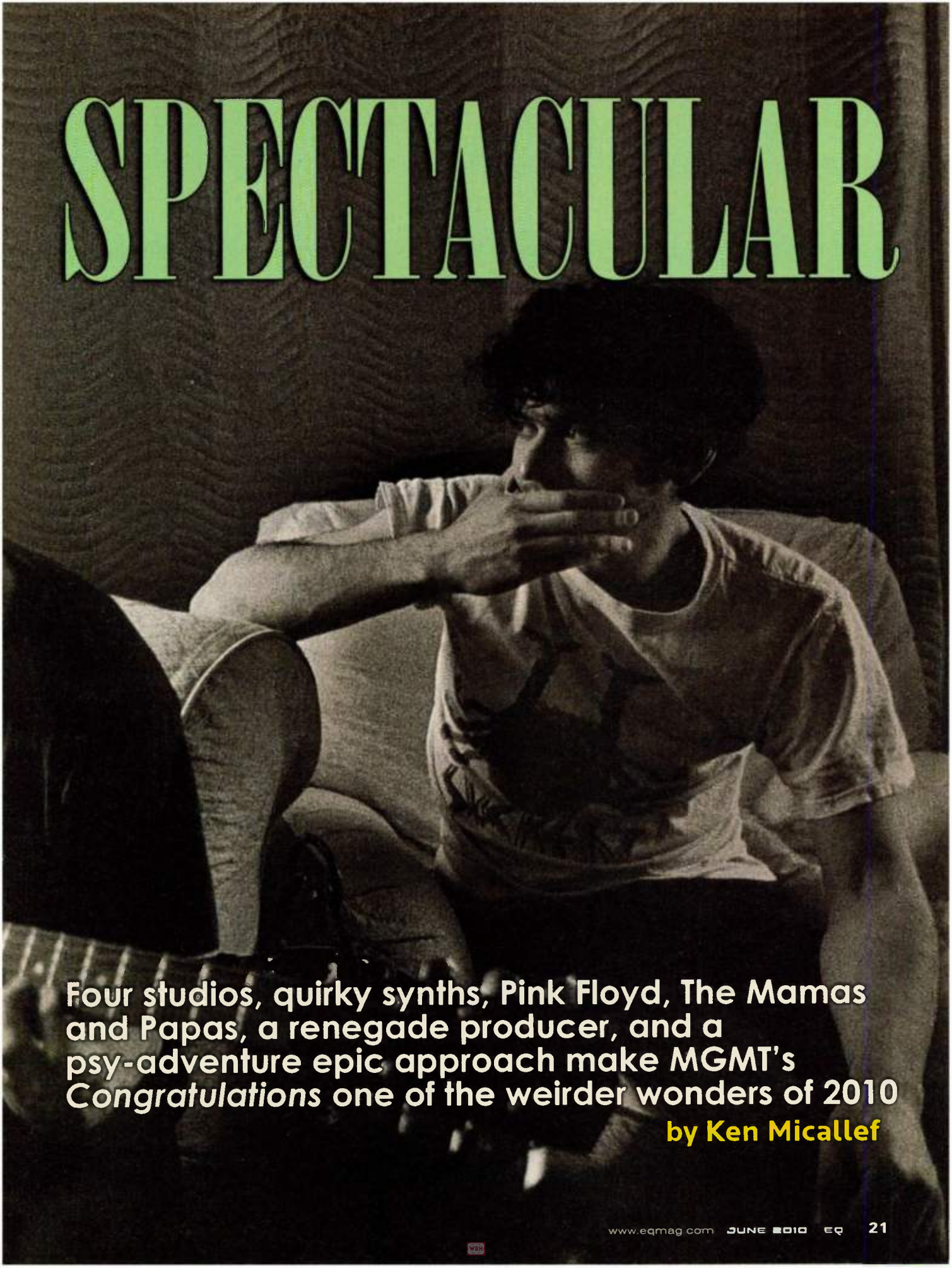
What Four-channel "Twin-Finity" mic preamp & DI with Dynamics
Why Newly designed 1176-style compression/soft-limiting circuit per mic channel.
How Placing four 710s into one unit, adding eight channels of high-quality 2-bit, 192kHz A/D conversion, and balanced send/return inserts.
Price TBD
Web www.uaudio.com

SOPHOMORE



Left to right—producer Pete Kember, Andrew VanWyngarden, and Ben Goldwasser.

SPECTACULAR



Four studios, quirky synths, Pink Floyd, The Mamas and Papas, a renegade producer, and a psy-adventure epic approach make MGMT's *Congratulations* one of the weirder wonders of 2010

by Ken Micallef

SOPHOMORE SPECTACULAR

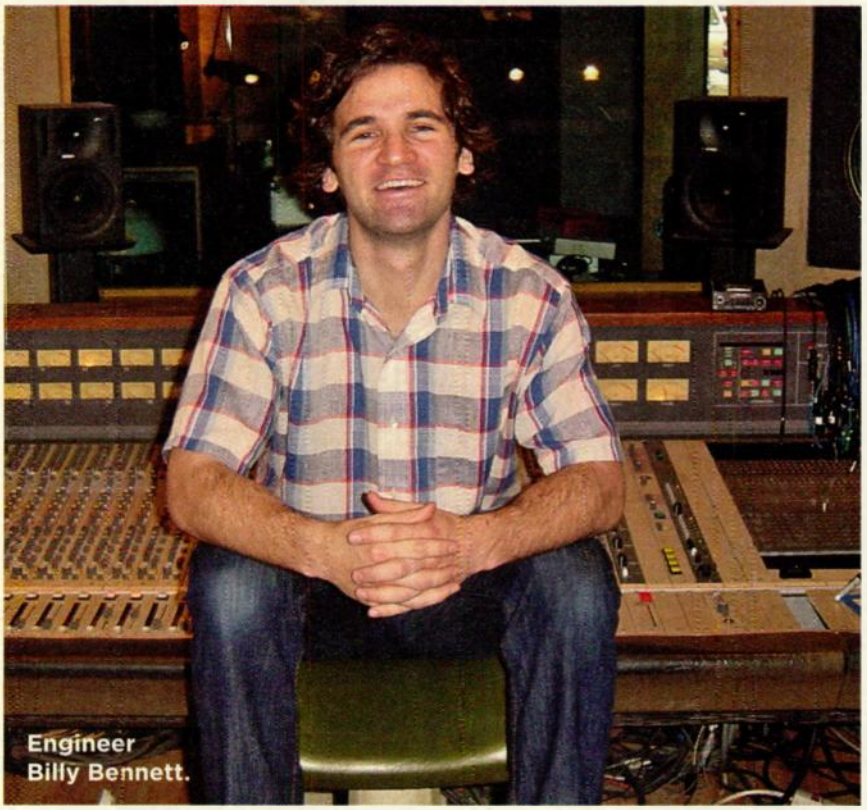
It's the summer of 2009 at a rented house in Malibu, CA, and producer Pete Kember (a.k.a. Sonic Boom) and engineer Billy Bennett are twisting knobs, pulling sticks, and generally kicking the crap out of a very valuable EMT 250 reverb unit. The result of the boys' banging and experimentation will become one bizarre element in an album of general weirdness by Brooklyn duo MGMT.

MGMT principals Ben Goldwasser (vocals, keyboards, synthesizers) and Andrew VanWyngarden (vocals, guitar, keyboards, bass, drums) scored big with their first major label effort, *Oracular Spectacular*, which was recorded and mixed in 20 days by Dave Fridmann at his upstate New York Tarbox Studios (with some tracking at MGMT's own Blanker Unsinn in Brooklyn, New York).

Accorded great freedom from Columbia after the critical adoration and popular success of *Oracular Spectacular*, MGMT's *Congratulations* is by contrast an Alice in Wonderland audio-adventure epic. It's far stranger, more experimental, yet retains the sense of glee that pervades MGMT. Recorded over five months in multiple studios accompanied by a full band, producer and ex-Spaceman 3 member Pete Kember (who still "takes drugs to make music to take drugs by"), and a fresh songwriting direction, MGMT expands beyond *OS* tracks such as "Kids" and "Time To Pretend," stretching out the songs while hanging onto the gooey good hooks.

"After touring *Oracular Spectacular*, we had to learn how to write songs again," VanWyngarden says from Brooklyn. "It just came out differently this time. We were thinking more about how the songs were going to be performed live [*Oracular Spectacular* was Goldwasser and VanWyngarden solo]. In general, when writing songs, we won't like a chord progression unless we like it on its own. We inevitably make it go somewhere unexpected. We also wanted more space on this record—then we got carried away again."

"We usually start out with an idea that one of us has brought in, then work on it together," Goldwasser adds from Manhattan. "For every song, we do the music and the arrangement and figure out an overall sound before we have a vocal melody to accompany it. The vocals and lyrics are inspired by what the music sounds like. We've never really done stripped-down demos. It's always in the demo process; we end up fleshing the song out and its direction as we go. It's a weird way of working."



Engineer Billy Bennett.

SONIC BALLYHOO

MGMT increased the weirdness factor by renting a house in Malibu and analog gear from Ocean Way, and hiring Kember, who brought his analog synths—EMS Synthi A, Gakken SX-150, Synton Fenix, Suzuki Omnichord—and a mindset that nothing was sacred. Kember also played Goldwasser and VanWyngarden *his* idea of weirdness: The Electric Prunes, 13th Floor Elevators, and early Roxy Music. Once he arrived in Malibu, with recording already under way, Kember set up a second live room in the garage to further the band's creative fancies. Later, MGMT recorded additional tracks at Vacation Island (New York) and Blanker Unsinn.

"Setting up the second studio meant there weren't extra people strumming guitars and working out parts in the control room," Kember explains from Rugby, England. "We had a space where they could record ideas, and at the end of the day we'd pass stuff between studios. Then they could judge what to add from the other room. One of my philosophies is that there are very few spaces that you can't record in, particularly given a half decent microphone and preamp."

Kember reports that the band cut core rhythm tracks for "Song for Dan Treacy," "Flash Delirium," and "Siberian Breaks" in Malibu, with everyone trading off on instruments. Tracking was done via Pro Tools 8 LE on Mac G5 through a Toft ATB32 analog console for monitoring. Bennett rented scads of classic gear from Neve, Neumann, Teletronix, and AKG, as well as a 1962 Fender Jazz Bass, 1976 Gibson Les Paul Deluxe, 1978 Guild F-412 12-string, 1966 Fender Electric XII, and a Rickenbacker 4001 Bass.

"The band recorded basic tracks live, with some overdubbing and replacing," Kember adds. "Andrew played drums on some tracks, or parts of tracks, and guitar. It was all laid down to click but played live. If the feel overtook the grid, they would actually have different sections in different

B&H
PHOTO - VIDEO - PRO AUDIO

The Professional's Source™

TOOLS FOR CREATION

When it comes to the B&H sales staff, knowledge and experience are a given. We offer unparalleled expertise and solutions for the Pro Audio professional.

Visit our SuperStore in the heart of NYC, give us a call, or browse our newly expanded Web site featuring live assistance, and experience for yourself the most knowledgeable and helpful sales staff anywhere.

420 Ninth Ave, NYC
Visit Our SuperStore

800-947-5518
Speak to a Sales Associate

bhphotovideo.com
Shop conveniently online

SOPHOMORE SPECTACULAR

tempos. There was some beat-matching, too. Everyone in the band can play the drums; it's down to taste, which is the best take from the five. They all play three or four instruments."

The Toft ATB32 was used for monitoring and rough mixes, and its mic pres were engaged when recording synths or bass direct. Kember found the group's analog fixation amusing.

"They liked putting their hands on the thing," he says with a laugh. "If you want to record something with a Roland Space Station, which we did [for "Siberian Breaks"], you'd much rather have those knobs than doing something with a mouse. While there is something great about editing a performance through digital parameters, there is something instant about controlling a Space Station feeding back. I suppose it is the element of human interaction. But I don't think it was any better for it. It's the romance of it."

Billy Bennett disagrees, at least in regard to the Toft console. "Malcolm Toft made the Trident Series 80 range boards back in the day," he says. "The same EQs are in the Toft console. So we had good EQs on every channel. We did mostly rough mixes on the Toft, and mixing out of the box sounds infinitely better than in Pro Tools. The rough mixes just sound so open, the high end is so detailed, way more than the Pro Tools mixes we did at Blanker Unsinn or at Vacation Island."

SIBERIAN BREAKTHROUGH

One particular software program did make its way onto *Congratulations*, producing the sequenced modular sounds heard at the end of the album's longest track, "Siberian Breaks." Five12 Numerology is Goldwasser's latest plaything.

"I haven't even started tapping into its possibilities," Goldwasser says, "but it's basically an analog step sequencer program like you'd have on a modular synth. It's not like Logic or Ableton, where it's pretty rigid as far as thinking of everything on a grid that is all related on that grid. With Numerology, you can have lots of different grids that are all related in different ways. You can have a sequence affecting another sequence, for instance. You can also hook up Numerology with a modular synth like Five12's Volta. It's more useful for people who are making strictly electronic music or generative music."

JOSH CHEUSE

Left to right—Matt Asti, James Richardson, Andrew VanWyngarden, Ben Goldwasser, and Will Berman.

Referencing the vocal glory of The Mamas & The Papas, Roy Halee's reverb-filled productions for Simon & Garfunkel, and the fuzzy rock of The Kinks, "Siberian Breaks" moves through endless sections, finally resolving in waves of looped synth tomfoolery.

"The first sequence at the end of the song was played manually on the EMS Synthi A running through a Roland Space Echo," Goldwasser explains. "Then all the little fast sequences on top of it are Numerology. There are two sequences running

in Numerology with another sequence modifying them, getting them to step through different miniature sequences. If you were trying to manually program each individual note, you'd drive yourself crazy, but it takes five minutes to set up with Numerology. There are endless uses for it."

Another constant on *Congratulations*, at least on "It's Working," "Siberian Breaks," and "Lady Dada's Nightmare," is a washy reverb approach that sounds like the tracks were recorded in a hot air balloon, then cut loose to float through the ether.

"The whole time we imagined that kind of a sound, especially on 'It's Working,'" Goldwasser explains. "We just like the trippy sound, thinking of records like Pink Floyd's *The Piper at the Gates of Dawn*, or The Electric Prunes. One of Pete's big things is that when you listen to an old '60s psychedelic record, it sounds like it's washed out in reverb, but actually there's only a real long reverb on the drums, and that makes the record sound washed out without actually reducing the intelligibility of the track. Dave Fridmann used tons of EMT plate reverb on the record; he is a specialist as far as that is concerned."

"Fridmann added a lot of the reverb in the mix stage, mostly to give things some space and make it sound out of this world," Bennett says. "But we did the really cool thing with the EMT 250. It's the original EMT 250 big box with sticks and real buttons on it. When Pete would hit the buttons to change programs (say from Phaser to Delay) and whip the sticks back and forth, it would make the 'glitch-y' sound heard on 'Siberian Breaks' in the transition along with the delayed/reversed snare between the end of the Spector/big-reverb-snare section right before the flute/synth section begins with lyrics, 'I hope I die before I get sold.' Pete really taught us to see the possibilities of what a piece of gear can do. He would grab a knob, and jack it all the way to the left or right to find its capabilities."

NUTS, BOLTS, GAKKEN, AND ELKA

Congratulations, like *Oracular Spectacular*, gains part of its cosmic, comic allure from mad synths, including the EMS Synthi A, Gakken SX-150, Synton Fenix, Casio DG-20 guitar synth, Suzuki Omnichord, and an Elka Panther 100 Combo Organ.

"The Panther is a Vox-type organ; you hit a key and it makes a metal contact that triggers the sound," Bennett says. "When you release the key, you can hear that telltale metallic thump. That's on 'I Found a Whistle.' The Gakken is a new Japanese synth that came free with a magazine that Pete bought. It's got a little stylus and a conductive strip, and when you run the stylus up and down the strip, it makes a winding, whirring sound. Pete played it on a couple tracks after he put it together. The Suzuki is a student-type keyboard; you run your finger across its metal conductive strips and hold down the particular labeled chord button, and it will play that chord. It sounds like an arpeggiated harp. Pete also brought the EMS Synthi; that has a patch bay that lends itself to experimenting. It's most prominent in 'Lady Dada's Nightmare,' that squealing, crying awful sound.

Producer Dave Fridmann.

LEANNA BATES

FRIDMANN'S REVERB HALLUCINATIONS

MGMT recorded final vocals at Dave Fridmann's Tarbox Road Studios, taking full advantage of his reverb mastery and unique recording ethos.

"We cut the bulk of the vocals with a Neumann M 147 going through a Neve 8801 channel strip [from a Neve 88R series console]," Fridmann says. "Usually, I am adverse to high-quality gear; it's boring and clinical. But we used the Neumann 'cause MGMT had a specific idea of what they wanted. They were unhappy with their own mics at Blanker Unsinn, so we realized that it was a quality issue. They were looking for a more pristine sound, and they liked the Neumann/Neve combo right away. One of the great things about the 8801 is that I can keep recalling sessions. It has different settings for different mics and a USB output so you can save your settings right to the computer. Then I can pull up settings right away and be ready for what they are doing.

"Regarding the reverb, I don't do much with plug-ins. It's a combination of the EMT 140 plate and an EMT 240 plate, the mono and stereo versions of those, as well as a lot of Lexicon Model 200 and the AKG BX 20 spring reverb. One of my favorites is the Alesis MidiVerb 2, setting 27-28, 17-18. The EMT is giving you more of the Simon & Garfunkel bathed-in-reverb effect, while the MidiVerb is the late '80s, grainier sound. The vocals were processed with the EMTs, the other instruments via the MidiVerb. The [overall] sound was their vision. Goldwasser and VanWyngarden associate different types of reverb with different time periods and different musical styles. They are very astute listeners; they have a specific reference list for reverb sounds in mind. They have a unique ability to combine reverbs constructively to create this other sonic palette. They know their shit."

SOPHOMORE SPECTACULAR

To make it do a voice, they tweaked the knobs and played it live as the song was being recorded."

The various synths, played by Goldwasser and Kember, were mostly recorded direct, whether at the Malibu house, Blanker Unsinn, or Vacation Island. "I recorded the synths direct to a Neve 1272 module, the Toft's stereo mic pres, or a Chandler Limited TG-2 [Abbey Road Special Edition Mic Preamp] to give them more of an analog sound and fatten them up," Bennett says. "Sometimes we would overdrive the pres to get some harmonic distortion. The Neve has a fatter low end; the Chandler is a creamier, older-sounding pre. The Neve is the classic rock 'n' roll sound; the Chandler is more vintage-sounding to me.

Although everyone in MGMT plays drums, the bulk of final drum tracks were either from proper drummer Will Berman or the ever-busy Andrew VanWyngarden. To get the band's desired, more natural drum sound, Bennett eschewed close miking individual drums for an overhead-oriented approach achieved by using tried-and-true miking methods.

"Instead of that hard-panned, left to right sound, the band likes a more natural sound," Bennett says. "I went with the Glyn Johns or Andy Johns setup. Distance-wise, you place the overhead mic about two-and-a-half sticks above the snare, then the other overhead, two-and-a-half sticks again, at almost a 90-degree angle to the drummer's right. As long as they are both equidistant from the snare, the snare will be in the middle when you pan the two mics out. Then you'll have rack toms closer to the snare overhead mic, and the floor tom will be closer to the overhead mic to the right—you'll get some real presence out of the floor tom. That gives you the stereo image. You're hearing what the drummer hears: the entire kit.

"We had Shure SM57s as spot mics on the snare for good crack," he continues. "For the overheads, I used two AKG C 12s for a while; they sounded smoother, and more rounded on the top end. But we changed them for Neumann U 67s; that really brought the full-on cracking sound the band wanted. Those went through a Neve 1081 or an API 312; the API is the cleanest, brightest mic pre I've used for drums. The Neve is sometimes too dark and fuzzy on the drums, but I use it for kick drums to get that rock 'n' roll low end. I used an Audio-Technica AT4047/SV for the bass drum through the 1081, sometimes with a high-pass filter to cut the bass; the band doesn't like a super-sub low end. They like it more bright. I'd put the mic at beater height, just inside the front head side, front head removed. We had the drums baffled in Malibu; but it was really about controlling the volume levels to control the leakage."

GUITARS, BASS, AND FILTERS

The multiple vintage guitars were captured with a combination of modern and classic equipment. "I used a Coles 4038 into a Neve 1081 or a Beyerdynamic M 160 ribbon into the Neve 1081, miking a ZT Lunchbox Amp, a 1950s Galanti Amp, a Marshall JMP, a Fender Super Reverb or Fender Champ," Bennett recalls. "Ribbon mics capture the fullness of the guitars without treble harshness. They put the guitar where they need to go in the mix. A ribbon mic limits the frequency range of what you're picking up; it doesn't capture so much high end like a condenser mic would. They pick up guitars in a natural-sounding way."

And in keeping with MGMT's somewhat old-school pursuit, Bennett recorded bass live through an Ampeg Portaflex Fliptop Bass Amp.

"We had a Neumann U 47 fet and an AT4047/SV as well," he says. "The U 47 sounded a little more classic and old school. The 4047 is a more modern sound. Usually the mic pre on bass was the Neve 1081 for a tight low end. I usually put the mic close on the Portaflex, not more than a foot away

JOSH CHEUSE

MGMT's rented-house studio in Malibu, CA.

from the speaker, angled right at the center cone. When Goldwasser and VanWyngarden preferred the bass direct, we'd run it straight into the DI input of the 1081 then into a UA 1176 or a Teletronix LA-2A."

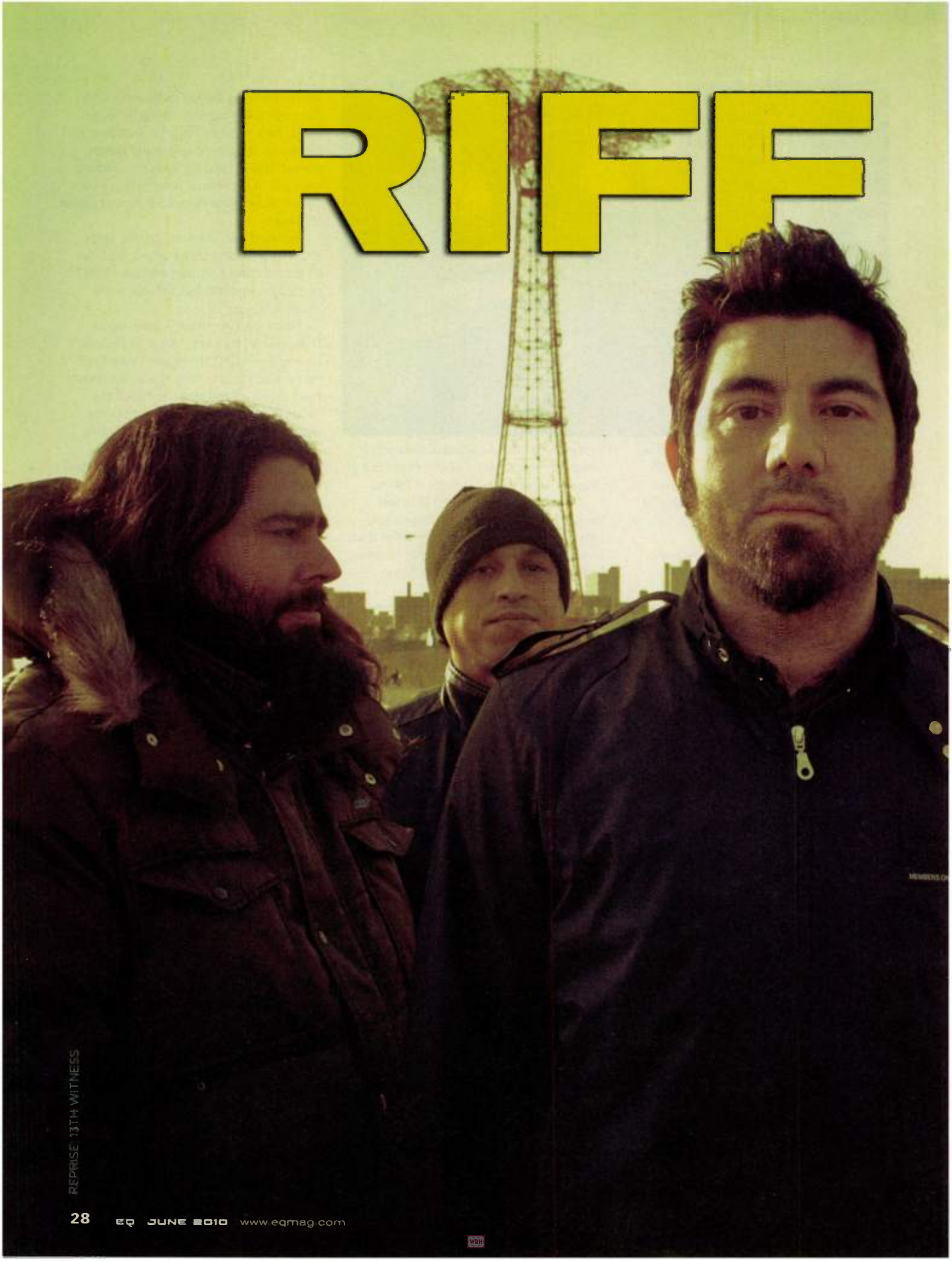
Though *Congratulations*' heavy reverb fix was mostly added at Fridmann's Tarbox Studio, Bennett used Sonnox Oxford as the main EQ at Blanker Unsinn and Vacation Island.

"Ben liked those a lot," Bennett says. "The filters are nice 'cause you can change the octaves. We used it on everything, they're really flexible and high quality. But in the final mixes you're hearing Dave Fridmann's Otari Concept Elite console. Watching him work, he's got all this gear, but everything has a specific use. He'd patch something in, and if it wasn't working he'd pull it right out. He didn't try to tweak it; he'd move onto the next piece of gear."

Bennett has worked closely with MGMT for nearly three years, and like Fridmann and Kember, praises MGMT's recording knowledge, talent, and musical vision.

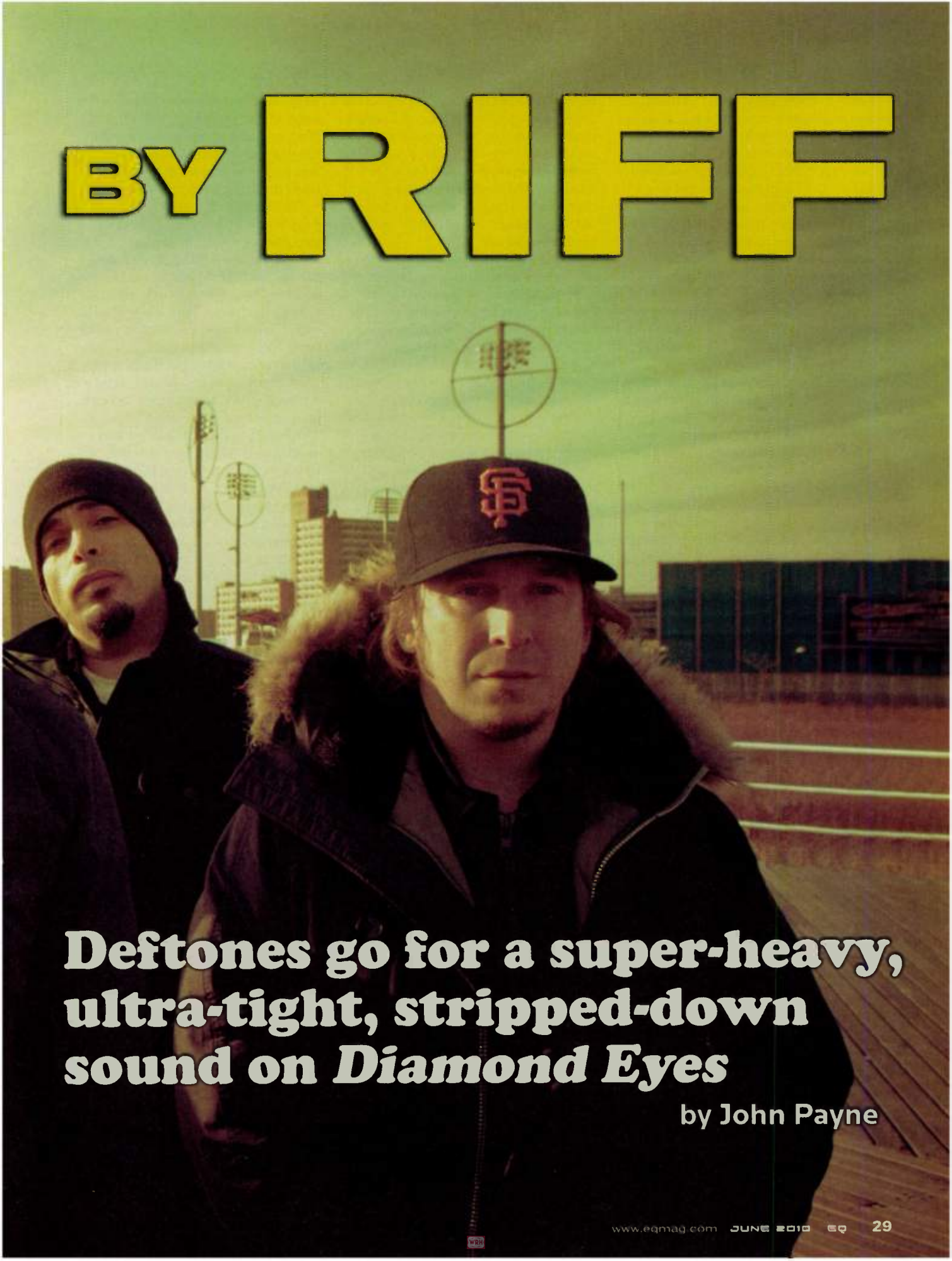
"Ben and Andrew know what they want," he says. "A lot of people downplay MGMT; they see Dave Fridmann's name and they figure he must have done all the stuff to make the records sound cool. I am not taking anything away from Dave Fridmann, but these guys are super-talented. They are hearing these songs fully realized. It's not like someone waved a wand and made it so. Ben and Andrew saw it through from beginning to end from song ideas to the mastering process. They're the real deal. And it's all their vision." EQ

RIFF



REPRISE: 13TH WITNESS

BY RIFF



Deftones go for a super-heavy, ultra-tight, stripped-down sound on *Diamond Eyes*

by John Payne

RIFF BY RIFF

Keep it simple, play from the heart, and at all costs make it *heavy*. That about sums up what veteran alterna-slammers Deftones had in mind when they got down to creating their sixth album, *Diamond Eyes*, just out on Reprise. While the band has rarely failed to elevate their brave brand of riff-tastic, brontosaurus beats to spacey new heights, *Diamond Eyes* brings the sound—and the song—right on down to earth.

Recorded by Grammy-winning producer Nick Raskulinecz (Foo Fighters, Marilyn Manson, Velvet Revolver) at L.A.'s The Pass Studios, the new album's game plan was to get back to keeping things real, albeit in Deftones' singularly surrealistic way.

"I really wanted this record to have a punchier, it's-a-little-more-about-the-riff type sound, and less about the ambience," Raskulinecz says. "I wanted it to be dense and thick and *really* heavy. And I wanted to create the space and atmosphere through Chino [Moreno]'s vocals, instead of having the music *and* the vocals be like that, which is a pattern they had fallen into with their last couple of albums."

SUPER-REHEARSALS, TIGHT PRODUCTION

In late 2008, bass player Chi Cheng was in a serious car accident and slipped into a coma. His recovery has been very slow (see progress reports at Oneloveforchi.com). In light of Cheng's condition and the band's belief that the sessions for their album, *Eros*, didn't represent where they wanted to go creatively, they delayed the release and changed tack. Substituting for Cheng, old friend Sergio Vega filled in on bass for *Diamond Eyes*.

The band underwent intensive pre-production rehearsals/writing sessions with Raskulinecz, who served much like a film director in shaping the band's new songs. Under Raskulinecz' strict aegis, the band put together nine of the album's 11 songs in the first week of warmup at The Alley in North Hollywood.

"We wrote it in the rehearsal space, and those guys just *played*," he says. "I wanted to take it back to the basics, and part of doing that was just getting them in the room together and sweating and getting close and really tight. When they set up in the room, they had all their amps and other gear spread really far apart, like they were out on a big stage, and I made them push all their amps as close as they could to the drums. I wanted everybody to be standing really close together—I wanted 'em to be a *band*, you know, and it totally worked."

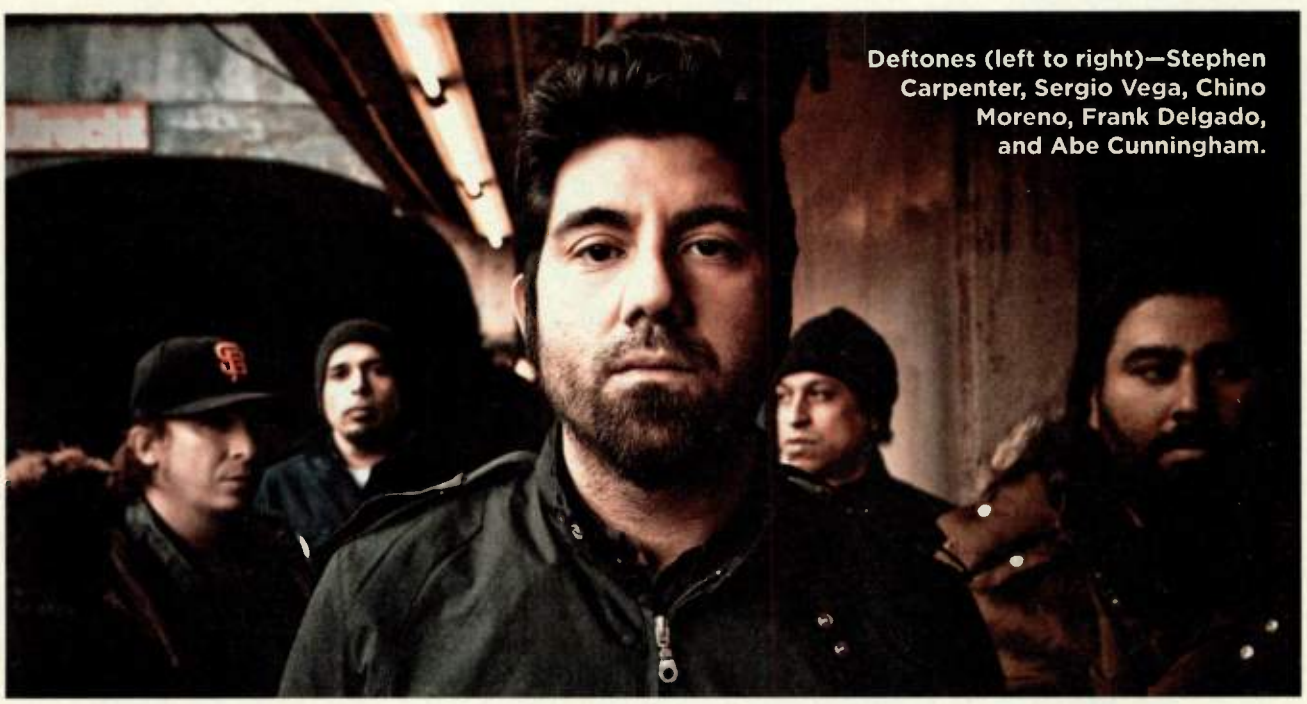
By the time the band did get into the studio, they were well prepared and rehearsed, having played every single day in that rehearsal room from noon to six. "When it came time to start recording," drummer Abe Cunningham says, "we were ready to go. It was a breeze, and a joy. We hadn't been that prepared in 15 years."

The band and producer chose The Pass Studios for its famed and rather peculiar combination of super-tight and ultra-huge acoustical properties. "There are two studios in the building, and the room we were in is an older, '70s kind of room, with a big control room," says Raskulinecz. "The tracking room has a very high ceiling, and it's kind of rectangular, but it starts to twist at one side and almost turns into a triangle. It's a tough room to work in, because it's really dead."

Even so, that sonic tautness was exactly what Raskulinecz thought Deftones needed. "I knew by the time we mixed this album that it wasn't gonna be about how big the drum room was, it'd be about how tight and punchy the drum sound was," he says. "It's hard to get that in a big room, because you get that sound in all your mics, too; you can turn it off, but it's still gonna be in the overheads, it's still gonna be there every time you hit the snare."

TOTAL TREATMENT

Utilizing the studio's Neve 8078 board, Raskulinecz opted to go all-analog front-end, with old tube mics



Deftones (left to right)—Stephen Carpenter, Sergio Vega, Chino Moreno, Frank Delgado, and Abe Cunningham.

REPRISE: 13TH WITNESS

Batteries not included.*

INTRODUCING THE STUDIO THAT GOES WHERE YOU GO.

The R16 is the first portable 16-track SD recorder that's also a USB audio interface and a control surface. And it accepts up to a 32GB SDHC card, so you get over 100 track hours of recording time. That means it's never been easier to create professional multi-track recordings anywhere.

IT'S A 16-TRACK RECORDER...

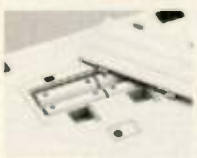
With simultaneous recording on 8 tracks, the R16 is perfect for recording everything: from music production and rehearsals to field recording and live performances. Use the R16's on-board studio, mastering and guitar effects to sweeten your tracks.

IT'S A USB INTERFACE.

Connect the R16 to your computer via USB, launch your favorite DAW and start recording tracks using its 8x2 audio interface. We've even included Cubase LE to get you started.

IT'S A CONTROL SURFACE.

When you're ready to mix on your computer, the R16 is right there with you. With your DAW software and the R16's intuitive controls, mixing has never been easier.



IT'S BATTERY POWERED!

Did we mention the R16 will operate on 6 AA batteries? You can also use the included power supply, or USB power when connected to your computer.

Now versatility, control and portability come together in one recorder, letting you produce professional results everywhere you go.

R16 Recorder | Interface | Controller
The portable multi-tracking solution.

*Hey, we give you a 1 GB SD card , AC adapter, USB cable and Cubase LE... Give us a break on the batteries.

ZOOM

RIFF BY RIFF

and Neve preamps going straight into Pro Tools. The album's hard-crunching guitar and bass sounds were entirely grabbed off miked cabinets, with nary a trace of direct-inject into the board. He used the Neve 8078 for all the drums input, and did all the guitars with Neve 1073s. While he favors a pure analog tracking into those old Neve boards, Raskulinecz favored a wide range of digital tools for EQ, delay/reverb, compression, and other enhancements, all mixed through an SSL 6000 K console at Paramount studios in Hollywood.

"I like the Waves SSL G-series Channel Strip for combining EQ and dynamics," he says. "I like the Renaissance EQs—they just *sound* good. You turn the dial and you hear it; it's subtle, but it's kind of aggressive; if I'm gonna EQ something, I wanna *hear* it."

Diamond Eyes' paradoxically punchy but widescreen wizardry is dominated by Raskulinecz's beloved Line 6 Echo Farm effects. "I use it on everything, especially vocals," he says. "But I really like the UAD plug-ins, too, and I think overall they probably sound the best; I love the SSL stuff, but the UAD stuff is great because they have a lot of the same versions of the same things."

For that devilishly tricky process known as compression, Raskulinecz keeps it cheap and simple: "The dbx 160XT is my favorite compressor. You can buy them for a hundred bucks apiece on eBay nowadays, and I've got like eight of 'em that I've bought over the years. I'll use them on everything, because they're really fast and really clean."

Raskulinecz also owns a number of dbx 160 VU compressor/limiters as well as a Teletronix LA-2A, and for other simulated tube compression he currently likes the Fairchild 660, as well as Retro Instruments' Sta-Level and 176 Limiting Amplifier.

DIRTY GUITARS, AMBIENT VOCALS

Mixing it up mic-wise was a way to capture *Diamond Eyes*' spectacular instrumental textures. For guitars, Raskulinecz used a Neumann U 47

Chino Moreno (standing), engineer Paul Figueroa (left), and producer Nick Raskulinecz.

KAREN FARRAH OSWALD

alongside a Shure SM7. "You get the width, depth, and clarity with the fat U 47; then you add the SM7, and that gives it the guts and the beef and the hair." For the bass, he used a Telefunken Ela M 251, which, he says, never fails to provide a very full range of sound.

Yet the guitar and bass sonorities were the product of an odd hodge-podge of varied amplifier heads and cabinets alongside assorted mic combinations. The sole amps employed were those of guitarist Stephen Carpenter, with Marshall JMP-1 preamps.

"This record has a cool sound to it," Cunningham says, "because Stephen is playing a custom ESP eight-string; it's the first album he's done that on, and it really put the bass guitar in a totally different spot, because the guitar is actually lower than the bass."

There's very little "clean" guitar on the album, and most of the ambience comes from Moreno's vocals, the clarity of which was ensured with a Telefunken Ela M 251. If Moreno wanted to use a hand-held mic, Raskulinecz and his engineer Paul Figueroa assembled a U 87 with a radio broadcast windscreen, a large piece of foam around it, and a lot of duct tape.

MYRIAD MICS, MINIMAL OVERDUBS

And as for the album's simply spectacular drum sound? "There were mics everywhere, just an insane mic setup," Cunningham says with a laugh.

"I like to use a *lot* of mics," says Raskulinecz. "I'm very particular about recording drums." His drum-miking arsenal for Cunningham included a Shure Beta 57 on the snare top, a Neumann KM 84 on the side of the snare, and a Sennheiser MD 441 on the bottom of the snare. There was a Sennheiser e 602 inside the kick with an Adam ANF10 speaker on the outside. Toms were captured with AKG C 414 condensers. Overheads were the Ela M 251s, and then there were several room mics, including a pair of RCA 44 ribbon mics in front of the kit, placed close to the drums but spread wide, and Neumann U 47s handled the big, faraway room sound.

Given the modern recording studio's tantalizing temptation to conjure enormous heaps of sonic magic, how on earth does a band keep its eye on the prize? Raskulinecz is convinced that simplicity—and the message in the music—is the key.

"I try to keep it stripped-down the whole time," he says. "It's really easy to get too dense and go too far with it—and you know, sometimes we do, depending on what the song calls for. But it's really about the song and not about the overdubs, not about how cool something sounds—it's how great the song is."

Ultimately, Cunningham says, a band ought to sound like a *band*: "The studio is the place where you can get as busy as you want to get, especially these days with the infinite amount of tracks you can use with digital recording tools. But you might shoot yourself in the foot when it comes to re-creating that live. It shouldn't be that difficult. For lack of a better word, we're a rock 'n' roll *band*."

CRAFTING A COUNTRY TWANG WITH MODELING SOFTWARE

by Kent Carmical

Like any other form of music, country can be subdivided into many subgenres, but all a recording engineer needs know about tracking country twang can be divided into two categories: vintage and modern. Vintage twang is pretty much a guitar-straight-into-the amp affair, while modern country tones typically rely on an array of effects pedals too difficult to engage wearing cowboy boots. Now if pedal lust isn't enough to make Chet Atkins spin in his grave, we're going to explore crafting both vintage *and* modern twang tones using amp-modeling software.

Start with the Guitar

If you own a Fender Telecaster—or a reasonable emulation of the classic bolt-on plank—it's hard to *not* get a decent twang. Single-coil pickups just have a much tighter, punchier sound that works well for country picking. But if you're stuck with a humbucker-equipped guitar, it ain't necessarily the end of the line, partner—especially if the humbuckers have a coil-tap switch. You'll typically want to initiate the coil-tap function to thin out the humbucker roar, and then work with the guitar's tone controls to produce a bright, tight snap or snarl. If your humbuckers don't have a coil-tap, then tweak your volume and tone controls to get as much snap and pop as possible. One good option is to pull back the volume control so that you're not slamming your amp's front end, which will help keep the basic tone as clean as possible. Going with the bridge pickup is an obvious choice—unless there is too much edgy or stinging treble. In that case, you may want to blend in the neck pickup slightly—just enough to add some roundness to the treble to get that cowpoke snap going. If you want sonic references, there are a ton of classic country albums you can spin in order to get your guitar tone down on the farm.

Virtual Vintage Twang

If you were miking an amp, you'd probably be looking for a Fender Twin. It's no different when you're using amp models. Go for the Fender sound, and seek out those vibey blackface or tweed models. Of course, you can certainly get twangy tones with amps other than Fenders, but you'll seldom blow it if you fire up a Fender—call it an aural insurance policy. If your modeling software allows speaker and microphone choices, selecting 10" or 12" speakers, and positioning a dynamic mic against the virtual speaker grille will get you within twangin' distance of Bakersfield.

Start EQ tweaks with the amp model's bass and middle knobs at 5 (or "flat"). Now, to feed your twang jones, virtually twist the treble knob to 8, and flip on the bright switch. If the resulting tone lacks depth, either dial in a bit more bass, or cut the bright switch. While most pickers recorded without compression, it won't hurt to add a little more snap and punch by slightly dialing in a compression-pedal plug-in (don't go for the "studio rack-style" compressors—they're too shiny and clean). If you listen to the tone and feel like starting a brawl in a honky tonk, then you've achieved sufficient twang.

Rustling Modern Twang

Somewhere along the line, country pickers ditched their Twins and became gear sluts. Boutique amps and massive, effects-encrusted pedalboards replaced infidelity and alcoholism as the music's main influences. So to enter the realm of "arena country" (as opposed to honky-tonk country), you'll need a rockier, dirtier tone that sings, weeps, and growls. A good start is to select a Vox AC30, or any Class-A, cathode-biased amp models your software offers. (Stay away from the high-gain monsters, though—they're still a bit too ferocious for today's country guitar sounds.) For a basic snarl, set the gain or drive at 6, the bass at 4, and treble and midrange at around 7. Obviously, different software programs may present different controls, but the main idea is to dial in a fat snarl with some cranky saturation. For example, if you go for an AC/DC-style overdrive tone, and then sneak down the drive a little bit, you'll probably nail it.

You'll also want to "modern up" the sound by adding effects, such as chorus and delay (set the delay time between 200ms to 400ms with a single repeat). Spinning some Brad Paisley or Keith Urban tracks will give you decent references as to how far you can veer to the "processed rock" side of the aural coin without destroying the mod-country feel. Tweak your tones to taste, and you'll know you're onto something when you can feel your Wrangler jeans getting tighter. Wearing a giant belt buckle doesn't hurt either. EQ

A recording studio just isn't complete without **Eventide**

Fifteen of Eventide's best effects from the past thirty-five years for only $1195

Universal

REMIX

Eventide®

call 201-641-1200 / email: audio@eventide.com / or visit: www.eventide.com

DAN ANDRIANO ON PUNK PRODUCTION

by Contessa Abono

Since 1996, Alkaline Trio has practically lived on the road, garnering a rock-solid support base of fans. But that doesn't mean the band has ignored the studio. This year, the Chicago-bred group released its seventh studio album, *This Addiction,* on its own imprint, Hearts and Skulls. Here, bassist Dan Andriano talks about the band's songwriting method and production concept.

How would you characterize your production aesthetic?

We've always wanted to experiment, and we'll try anything we think might sound good. We've even overdubbed strings and keyboards—which sometimes ended up sounding fairly grandiose. For *This Addiction*, we didn't set out with the intent of stripping all of that away—we just wanted to write songs that would stand more on their own, no matter what the production values might be. Our goal is to write songs that sound good with just the three of us playing. Also, stripping down the arrangements makes the songs easier to get across live, as we don't have to play with sequenced tracks. It can be fun having lots of crazy sounds going on, but it's nice not to worry about it.

What's the band's songwriting process?

Generally, Matt [Skiba, Alkaline Trio guitarist] or myself will write the skeleton of the tune—maybe just a verse and chorus—but we don't really structure the songs until we get together with Derek [Grant, drums]. Derek is really good at putting song structures together in interesting ways. We live in different cities, so we share music and ideas online. That has worked out pretty well, but it's not until the three of us are in the same room that the songs really come together.


CONTESSA ABONO

Dan Andriano.

In your years playing with Alkaline Trio, what are some of the things you've learned about getting the most from your gear in the studio?

When we worked with producer Jerry Finn on *Crimson* [2005], I played his '62 Fender P-Bass, which was the nicest bass I had ever played. It was all worn out in all the right spots! As soon as we finished making that record, I bought two Fender '62 Reissue Precision Basses, and I sanded the finish off the necks to give them a worn-in feel. Now I do that to all my basses—including my GPC Signature bass.

Onstage, I play through an Orange AD-200B head and Orange 4x10 cabs, but the amp I like to record with is a 1971 Marshall Major head. It's the best sounding amp I've ever played through. I don't know why more people didn't get into them. It's a 200-watt head, so maybe it's that guitar players can't get them to break up very easily. But with bass, it sounds perfect. It gets pretty gnarly, but it stays smooth. It's almost like getting a naturally compressed sound. eq

This story was excerpted from the May 2010 issue of Bass Player.

Is Minimalism Punk?

Production concepts aren't required to involve massive overdubs, orchestras, layered beats, and startling onslaughts of signal processing. In fact, stripping a recording down to its basic elements is just as much a viable approach to audio production as filling 500 tracks with myriad vocal and instrumental parts. It all comes down to how you want the song portrayed to an audience—in other words, how you wish to "cast" the sonic spectrum—and what is truly comfortable within the unique stylistic imprint you've developed for your band.

So whether you're rocking punk, metal, country, or jazz, choose your production "skin" based on what enhances the song and your talent. You don't have to clone production approaches that are currently in vogue, or stick with proven techniques for your particular stylistic market. You can go any direction you desire—and the celebration of individualism may be the only "punk" aspect of any production style you choose. *—Michael Molenda*

DTX900 Series
Electronic Drum System

The One to Beat!

We've combined our expertise in acoustic drums with our latest digital sound technology to create the new Yamaha DTX900 Series electronic drum system - featuring the new DTX-PAD with Textured Cellular Silicone (TCS) heads. For quiet practice, playing live, or as a controller, the revolutionary new TCS head's playability and feel combined with Yamaha's acclaimed digital sound technology make the Yamaha DTX900 Series electronic drums the one to beat.

YAMAHA

yamahadrums.com dtxperience.com

HIT ME!

Visit any authorized Yamaha DTX Drums dealer to Xperience the new DTX-PAD and get a FREE DTX drums t-shirt.

GO TO WWW.YAMAHA.COM/DTXHITMEPROMO FOR MORE DETAILS. FOR US CUSTOMERS ONLY.

HOW TO SALVAGE PUTRID PIANO SOUNDS

by Tom Luekens

The piano is an incredibly complex instrument. Capable of a huge dynamic and frequency range, it can sometimes be the monster in the room during a mixdown session. In these instances, you'll likely find yourself bringing up the piano tracks, and then listening, tweaking, and listening some more. You'll continue to tweak, and yet you won't be able to get the piano to sit properly in the mix. Eventually, you'll want to tear your hair out, and run screaming from the studio—actions that will not inspire confidence in your abilities from your band mates or clients.

Luckily, there are some techniques that can save you from scalp damage and a ruined reputation. Just try out a few of these tips, and in no time you'll have that piano singing right in the sweet spot.

Parallel Compression

If your mix is fairly dense—say, with guitars and vocals taking up the majority of the sonic spectrum—you may be struggling to hear the piano part. But using the parallel compression technique can get the level of the piano up, without resorting to compression settings that might cause the piano tracks to sound overly squished. I have used this technique most often on drums and percussion, but it applies equally to the piano—which is, after all, a percussion instrument at heart.

Start by assigning the stereo piano track to bus 1 and bus 2 in your DAW. Next, open up three stereo auxiliary tracks, using bus 1/2 as the *inputs* to those aux tracks. Route all three aux outputs to the stereo bus.

Now, insert a compressor plug-in on the first stereo aux track, and dial in a compression ratio of 6:1 or greater, and with the threshold low enough that you are getting 6dB to 8dB of compression. Set the gain to +6dB.

On the second stereo aux channel, set up a different compressor plug-in at a 2:1 or 3:1 ratio. Set a slightly higher threshold, so that you are only getting around 2dB of compression.

Leave the last stereo aux channel alone.

What happens at this point, is that the uncompressed stereo-aux track can provide the attack of the piano sound as it was originally recorded. The two compressed aux tracks offer varying degrees of body and volume to the piano sound. As you balance the three aux tracks, you should be able to raise the average level of the piano in the mix, while still retaining the "natural" dynamics of the original piano performance. It may take a few tries to discover the best balance of natural piano, lightly compressed piano, and aggressively compressed piano that delivers enough volume and impact, but you should look like a genius almost as soon as you start moving the faders. Yeah—this trick can work that good!

Expansion

There are those times when what seemed like a good idea during the tracking session turns out to be a big problem at the mix. I'm talking about over-compressing the piano during recording. If you fall victim to this miscue, and find that your piano track lacks the dynamic range you want, you can simply "reverse" the compression somewhat by applying an expander.

Start with the same bus arrangement we used in the parallel compression technique, but, instead of compressors, set up a pair of aux tracks with an expander plug-in assigned to one of them. Set the expansion ratio to 1:2, with the threshold fairly high, so that the gain reduction is pulling some of the signal down to create greater dynamic range. Vary the hold and decay times so that the expander isn't staying open (or "off") too long.

Now, mix the expanded aux track in with the non-expanded aux track until the balance between the two sounds natural, and the piano's dynamics are as wide open as you desire. This technique can be very effective in blowing the minds of any cynics who were betting the piano track in question would sound squashed and awful forever.

Distortion

A subtle amount of distortion mixed in with the original track can give the sound of a piano some real ear-catching vibe. I personally like Bomb Factory's SansAmp plug-in for this technique, because you have individual control over how much distortion is applied to each major frequency band. However, this trick will work with any guitar-amp emulation plug-in, distortion or overdrive effects, or even guitar stompboxes.

This is another technique that works best if you "mult" the piano signal, and only apply the amp simulation or distortion to the mult, leaving the original piano track clean and natural. For the distorted track, I typically hit the mids heaviest, and go light on the low and high frequencies. It's also fun messing around with different amp emulations (Fender, Marshall, Vox, Mesa/Boogie, etc.), different amounts of drive, different tone settings, and even different speaker-cabinet simulations (if you're using an amp plug-in, rather than a pure distortion or overdrive effect). The idea is to add some sizzle and impact to the piano without making it sound too muddy or indistinct.

When you blend the clean and distorted piano tracks together, go for a sound that "owns" its space in

the mix without your having to push up the faders too much. The piano should command attention because of its tone—even if its volume level is actually pretty low.

Modulation

I recently mixed a project where, on several songs, the piano was recorded with the drums playing in the same room. The intention was to re-record the piano tracks all by themselves, but we decided to keep the original performances because they really fit the feel of the songs. Unfortunately, there was a substantial amount of drum leakage into the piano tracks, and bringing up the piano in the mix brought up the drums, as well.

Happily, the piano parts were not in a low register, so I was able to EQ a majority of the boominess of the drums out of the piano track. The downside was that this move left the piano sounding flat and lifeless.

To give the now-neutered piano some of its sparkle back, I inserted a chorus plug-in on the piano track, post EQ. I selected a sine wave, set the modulation rate to about 0.4Hz, and dialed in a very low amount of feedback. As I listened to the piano in the mix, I slowly brought up the wet/dry mix percentage from 0 percent, until I liked the result. A 20-percent blend of chorus effect to source sound did the trick. The resulting effect gave the piano a bit of movement and impact that nicely disguised the fact I had EQ'd the life out of the piano sound. And even though this treatment was very subtle, any time I muted the chorus plug-in, the mix just didn't sound right at all—proof that little things can make a big difference.

Tape Emulation

One of my favorite tools for adding vibe and interest to vocals and instruments is the Phoenix suite of TDM, tape-emulation plug-ins by Crane Song. (Similar tape-emulation plug-ins can do the trick, as well.) Phoenix not only simulates the coloration and natural compression of analog tape, it also replicates how tape interacts with the record and playback electronics. You get three frequency-response buttons—Gold (flat), Sapphire (bright), and Opal (warm)—and a big knob that increases or decreases the emulation effect. That's it.

To transform a limp piano track into something marvelous, I'll typically position the big knob between -6dB and -3dB—which is almost full emulation. My frequency-response option will depend on the sound of the original piano track, and whether it needs to be brighter or warmer to fit into the overall mix. I have yet to find a sound that this plug-in can't help. For less-than-stellar piano tracks, it's one heck of a life preserver. EQ

GET FIVE DRUMS SOUNDS FROM ONE KIT!

by Scott Mathews

While it is true that the world has clocked more than 100 years of recorded music, it was not until the 1950s when drums became louder and prouder on most of the records that dominated the pop charts. I say, "What took so long?" The people have spoken, and they want the beat! And if you're tackling a project in your home studio, it's going to be up to the drummer and the engineer to ensure the people get their groove on.

One way to accomplish this is to deliver a drum sound that catches listeners' ears and intensifies rhythmic impact. Getting there means you'll have to be versatile, flexible, and up to the task of pulling different sounds from the one kit your drummer probably brought to the session. Let's say the drummer is using a standard, five-piece set consisting of a 22"x16" kick drum, a 14"x5.5" snare, a 12"x8" rack tom, a 13"x9" rack toms, and a 16"x16" floor tom. For cymbals, he has 14" high-hats, a 22" ride, and 18" and 19" crashes.

Now, sure—size matters. But like they say, it's all in the way you use it. I have heard small kits sound as big as a house, and giant kits sound like a pencil tapping a piece of paper. Our reference kit is smack dab in the middle of the small kit/big kit range.

So how do we get five completely different sounds out of this setup? First, you need to deal with tuning the drums. Knowing how to tune drums is as important as knowing how to play. If the sound isn't right coming off the drum, it will be a lot harder to get the sound you want, and no microphone or signal processing can magically compensate for poorly tuned drums. On the upside, a single drum can produce an amazing array of sounds to compliment whatever style the music demands. So don't be afraid to experiment with different tunings until you find the one that knocks you out.

In addition, what you use to bang the drums also affects tone. Fill your stick bag with different-sized sticks, as well as some brushes, Blasticks, and rods that will deliver variations of percussive and tonal response from the kit.

Now, here are the recipes for those five drums sounds. . . .

The Natural

Let's begin with an approach that is sparse and quick to set up, and one that you've heard on a ton of hit records. As this setup utilizes only four microphones, it does require a player with finesse, as well as a room that has a smooth, balanced ambience. Dynamics are key, so work with the drums (and drummer) until they produce a consistent volume level, and listen closely to the drums/cymbals ratio to ensure the relationships are pretty even.

Kick drum. Set a large-diaphragm dynamic mic a few inches from the front head. For more boom, point the mic at the middle of the head. For more punch, offset the mic about 60 to 75 degrees.

Snare. Point a trusty Shure SM57 (or similar dynamic mic) right at the head, and away from the hi-hat.

Overhead one. Position a large-diaphragm condenser (set to its cardioid pattern) about three feet above the kit, pointing at the rack toms and snare.

Overhead two. Place a large-diaphragm condenser (set to its cardioid pattern) about six feet above the floor tom, and facing the hi-hat across the snare.

Dry As a Bone

For this popular sound that originated in the '70's, set up the drums in a small, dead-sounding room with low ceilings. This environment will effectively capture a tight and percussive drum sound with minimal amounts of room artifacts such as "ringing" or odd slapback echoes. Remove the front head from the bass drum, as well as the bottom heads from all of the toms. Dampen the snare and tom heads until they "thud," cutting down on clear notes and ring. You can make like the Beatles and employ tea towels to deaden the drums, or you can simply gaffer's tape some paper towels to the offending heads. Fill the kick drum with pillows or dirty clothes—just enough so that the attack is tight. Loosening the heads can further deaden the sound.

Kick drum. Put an Electro-Voice RE-20, an AKG D-12, a Sennhesier MD421, or similar large-diaphragm dynamic inside the drum. Cover the front of the kick drum with a piano blanket (or any thick, large blanket) to control signal leakage.

Snare. Position a Shure SM57 or Beta 57A close to the head, and angled away from the hi-hat.

Toms. Place large-diaphragm condensers about 2" from the heads.

Overheads. Position a matched pair of small-diaphragm condensers left and right, aimed at the cymbals.

Hi-hat. Place a small-diaphragm condenser 3" or 4" from the hi-hat to get a more "direct" sound than the ambient hi-hat sound that will be picked up by the overhead mics.

Room to Breathe

This is a "roomier" sound that can be achieved with the same mics used for the dry sound. First, replace all the bottom drum heads on the toms and the front head on the kick drum. Cut a 3" or 4" hole in the kick-drum head slightly lower than the middle of the

head, and off to one side. You'll need to retune the drums to taste—I recommend letting the tone open up so that the drums sing as well as bang. Some dampening may be needed on the toms and snare, and if the resonance or ring on the kick drum is too much, remove the head, place a pillow inside the shell, and then replace the front head.

Now, move all of the mics about an inch or two further away from each drum. For the kick drum, position the mic in front of the hole you cut in the head at a distance of a couple of inches. Experiment with whether you like the sound produced by positioning the mic straight-on, or angled slightly away from the head. Also keep in mind that a fair amount of air is going to be rushing out of that hole, so you may need to pad the mic to avoid signal overhead or a woofy sound. To intensify this open-room perspective, place two large-diaphragm condensers in different corners of the room. You can move these two mics around to taste, listening carefully to ensure you're capturing the sweet spots in the room (where the combination of ambience and source sound is thrilling), and that you're *not* introducing any phase-cancellation problems that will thin out the drum sound.

Boom Boom Room

Using the same mics and mic positions employed for the previous setup, open up the tuning, and let the drums bark. Overtones and leakage be damned as with this approach—you want to prove the big bang theory. Now, add a single large-diaphragm condenser down a hallway or in the next room—wherever the sound can travel that will produce a bright ambient timbre. This is your "power mic." At mixdown, you'll blend in this track to introduce a huge and ungodly cacophony to the overall drum sound. Of course, when you're recording, make sure the drummer beats the living daylights out of the drums, and doesn't get meek and mild on you.

Separate But Equal

Now, let's break all the rules, and try recording one section of the drum kit at a time. Pick the mics of your choice and go nuts with the mic positions. Yes, you are going to individually record the kick, snare, toms, and cymbals. Yes, your drummer may freak out at being asked to play his or her snare part independently, then the kick part independently, then add the tom figures independently, and finally track the cymbal and hi-hat parts. And, yes, this is a wild way to go, but it has worked for many producers and engineers—just check out most of Jeff Lynne's productions. Obviously, this approach will take longer to record, but the mixing possibilities are endless.

12 WAYS TO ENSURE A PRODUCTIVE SESSION

by Teri Danz

Recording vocals can be a challenge—even if you're experienced. For the singer, preparation, technique, and energy are critical. On the production side, understanding how singers work—as well as what you can do to help them deliver brilliant performances—are essential skills. But whichever side of the glass you're on, these 12 tips should guide you to fruitful, dynamic, and inspired sessions.

See the Coach

Working with a vocal coach prior to recording is always a good idea. Go through the material you're going to record, and listen to the coach's feedback on pitch, phrasing, stamina, breathing, and so on. The goal is to remedy any potential vocal problems before you stand in front of those sexy studio mics.

Do Preproduction

Work out the song so that the lyrics, timing, phrasing, and breathingare rock solid *before* you start recording. This sounds so obvious, but many singers and producers blow this step, and the result is often a performance that's less than what it could (or should) be.

Choose the Right Key

A half-step up or down can make a huge difference in whether a singer can deliver a great performance. Try the song in at least three keys: the key you think it will work in, a half step higher, and a half step lower.

Warm Up

Most singers typically need 45 minutes to an hour to warm up their voices enough to cut a good vocal. Matt Forger— who engineered Michael Jackson's *Thriller*, *Bad*, and *Dangerous* albums—advises, "Do vocal exercises so that your voice will sound up to par right from the beginning of the session." I like to sing scales in an octave sequence up to my high end, and then sing the chorus of the song I'm about to record to see if my voice feels completely comfortable and free. Remember, unlike guitarists or keyboard players, the singer's body *is* their instrument, so make sure the vocalist is in his or her "peak-performance zone."

Do a "Flight Check"

Before you press the Record button at the session, make sure the singer is prepared mentally, physically, technically, and emotionally to give a great performance. "Recording is a psychological, as well as a technical process," notes Buddy Halligan, chief audio engineer for USC's School of Cinematic Arts. "The producer/engineer needs to understand that they need to make the singer feel comfortable and confident, so that they can deliver the best vocal possible."

Freshness Counts

Don't make the vocalist wait for other instruments to be tracked before you start on the vocals. The singer may get tired or distracted, and lose the energy required to cut a great vocal track. Always schedule a separate date that focuses solely on the vocal tracks.

Watch Your Mouth

Take caution and only drink water or tea. Recently, I had a bite of chocolate before I sang a track (I couldn't resist), and the engineer "heard" the change in my vocal tone. Ouch! Happily, the antidote was taking a bite of a green apple.

Mic Selection

Microphones bring out different textures, timbres, and overtones. Try a least three mics for reference, and choose which one sounds best. Don't make the selection based on the price or model. (Don't laugh—some musicians go for the most expensive mics whether those mics enhance their voice or not.)

Headphone Techniques

First, you need a good headphone mix to ensure the singer can *feel* the music. A vocalist shouldn't start singing until he or she is 100 percent happy with their mix. If the headphones kick in a feeling of claustrophobia, go for the one earpiece on/one earpiece off method. This approach lets you hear both the track and the sound of your voice in the recording space. Additionally, you can cover the "free" ear to tap into bone resonance if you need to hear your voice clearer.

Have a Road Map

Put a lyric sheet on a music stand and use it to make notes—including breath marks. The engineer and producer should have copies, as well, so that they can notate pitchy parts, lyric goofs, technical misfires, and any other problems. When everyone is on the same page, so to speak, the chore of fixing less-than-stellar moments in the vocal performance is much easier.

Helpful Feedback

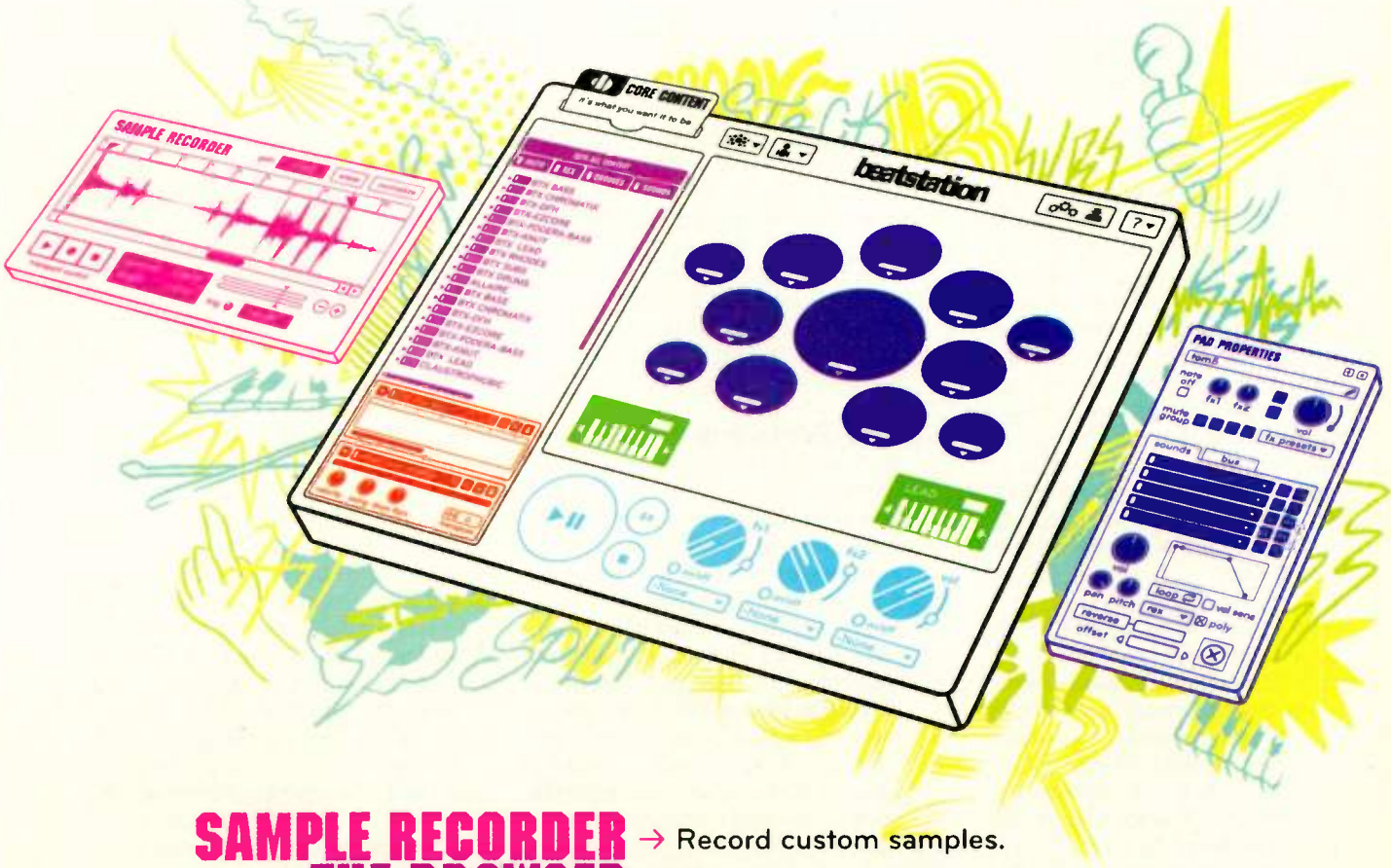
Make sure that all vocal instructions are clear and specific. This is where constructive criticism comes in. Negativity only makes things worse.

Be Realistic

The recording process will always take longer than you think. You may want to cut three lead vocals and all the harmonies in one four-hour session, but the goal is to cut an amazing vocal, not check off objectives on a to-do list. In short, don't choose quantity over quality.

beatstation

→ is a percussive + tonal, open surface,new generation, virtual instrument that allows anyone to shape their own personal sound!



SAMPLE RECORDER → Record custom samples.
THE BROWSER → Everything you need to make beatstation music.
PAD PROPERTIES → Shape your sound. Stack, reverse, loop and FX.
TONAL INSTRUMENTS → Bass, lead, organic and electronic.
CONTROLS → Swing, flam, master, mix.
GROOVES & REX → Play, cut, paste, drag'n'drop.

TOONTRACK

BUY THE SOFTWARE YOU USE
www.imsta.org

OVER LOUD AUDIO TOOLS

SYSTEM REQUIREMENTS:
1,5 Gb free disc space, dvd drive
XP, PIII/ATHLON:
1,8 GHz, 512 Mb RAM
MAC OS X 10.4 or higher:
G4 1 GHz, 512 Mb RAM

PC MAC STAND ALONE
Audio Units VST RTAS

WWW.BEATSTATION.COM

GETTING PASSIONATE PERFORMANCES

by Michael Molenda

Gazillions of audio tracks are zipping around the Web. Everyone seems to have a band. Everyone is making and sharing music. Scores of digital distribution solutions are transforming home-recording geeks into indie-music honchos. Even 12-year-olds are marketing wizards these days. Facebook. MySpace. Twitter. Today's world has shrunken to the size of a tangerine.

But amidst all the noise and chatter and promotional possibilities, a musician with career ambitions still has to deliver a track that a significant number of people will adore—something that rockets out of the cultural morass of clichés, clones, also-rans, dilettantes, and outright suck-itude. Boredom is deadly if you want to make an impact, and, in our speedy, on-demand obsessed, and tech-savvy society, your potential audience often has a lightning-fast yawn trigger.

So what to do?

Well, you can go the path of dazzling listeners with an inspired onslaught of audio trickery—a potpourri of wild effects, slick samples, unique instrumentation, mammoth textures, cinematic mixing techniques, and thrill-ride arrangements. Who wouldn't dig *that* kind of sound coming at them? Go for it. But that approach is for another article. This bit is about deriving a stunning performance from the artist, rather than employing your audio smarts to surround the artist with sonic tchotchkes. The goal here is to put the performer so in touch with their talent, their emotions, and the song that an unbeatable bond is formed—one that allows the artist to unleash a performance of unbridled passion. A performance that only corpses could ignore. One that grabs listeners by the ears and brain and heart and ignites little bliss quivers that imprint the artist and the song into their memory banks for at least a few weeks (we must allow for our short-attention-span culture). In short, a performance so true, honest, and affecting that it can't be ignored.

Admittedly, these types of tracks—where a great song, a great performance, and sensitive and inspiring audio production bond together—are rare. But you know them when you hear them. And, anyway, aspiring to reach such heights isn't a bad thing, is it? After all, the alternative seems to be allowing less-than-stellar performances to stand, or giving up just a bit because the artist simply can't get there. Once again, making a transcendent track becomes a question of hope, faith, and creative resilience. So, wish us all luck, and let's go. . . .

The Problem

The often unspoken (at least publicly) challenge of documenting a passionate performance rests with the essential element of that performance—the artist. He or she may not be able to sing on pitch. Their phrasing could be as evocative as dry paint. They may be "wannbe stars" instead of committed musicians. They could be absolutely clueless to what the song they are recording actually means. Maybe they never even read the lyrics—a recurring situation for musicians who aren't the vocalist—or maybe the lyrics are indecipherable bunk.

The bad news is that you may be stuck with a talentless hack. The good news is that technology exists to fix little problems such as bad pitch and robotic phrasing. The better news is that every human can *feel*, and even people who are stoic and private express some level of emotion every day—even if it's just impatience, or boredom, or pity. And if there's a tiny spark of humanity welled up inside someone, there's also a chance that you could bring out bits of that energy to inform a performance.

Physical Inhibitors

Is there an *easy* reason (or reasons) why a performer is holding back? You may not have to do anything to capture a great track other than find out if a *physical* inhibitor exists in your studio space or recording approach. For example, the studio may be cold, or so messy that it's distracting. The headphone amp may hum or produce slightly distorted sound. The engineer may be taking too long to set things up. The headphone mix could be crap.

I've discovered tons of reasons that can distract an artist from the task at hand. Some seemed—to me, at least—insignificant in the extreme. But the trick is to get the artist to articulate anything that is making them uncomfortable. You may have to ask six times if, say, the headphone mix is okay for them before they'll share that they really can't hear themselves (or their instrument), or that they'd be more comfortable if some reverb was in the cans. Sometimes, nervousness or embarrassment can prevent an artist from being honest. It's your job as the producer to break through these barriers, and ensure that the artist knows—and truly believes—that you're there to make everything good for them. The reward for such open and nurturing communication—as much of a pain in the ass it can be for the producer—is a relaxed and confident performer who may be in the right headspace to uncork an amazing performance.

The Dreaded Mental Inhibitors

Trust me, there's going to be a high percentage of times when you will not be lucky enough to have a physical impediment be all that stands between you and a stellar performance. In these instances, you will be dragged into the exciting realms of education, psychology, and outright cheerleading. You are going where there are seldom black-and-white answers, or surefire strategies. You are on your own, buckeroo, because emotional turmoil is as varied as the people who tread the earth, and no

artist will likely share the same mind glitches as another. But here are some preemptive strikes that have saved my bacon at times. Please steal them, adapt them, or disregard them and develop your own actions. Either way, you'll be further ahead than if you had allowed the artist's idiosyncrasies to bully you into submission.

• **Explain the genius of "do-overs."** I always tell nervous performers that playing live is way more stressful than working in the studio. Onstage, if you make a mistake, it's done. Over. In the studio, we can erase anything that isn't totally cool. Those mistakes will never exist in the outside world. They are our little secret.

• **Expose the obvious.** If a performance seems emotionally dishonest, make sure the artist truly understands the meaning of the song. Make them read the lyrics, and relate what those lyrics mean to them.

• **Role play.** Once the artist knows what the song is about, you can tap into their experience. For example, if the song is about love, tell them to think of something all lovey dovey and precious as they perform their part. They don't have to share the emotion with you and/or the other musicians—they just have to part their head in line with the feel of the song.

• **Be free.** Let the artist know that they can do whatever they want to get to where they need to be. They can jump up and down, play in their underwear, hold a "dead" microphone, stand next to their amp with one headphone cup off the ear, or whatever else they might desire. Do not force the artist to conform to your recording methods, or hold the so-called requirements of technology (meaning avoiding things such as signal bleed, random noises, etc.) above the needs of the artist.

• **Allow playtime.** Make the artist comfortable by running rehearsal takes without recording anything. It takes some people a while to settle down amidst all the cables and blinking lights and new environments.

• **Release your inner drill sergeant.** As hard as it is to not watch the clock when you're dealing with a recording budget and a lot of tracks to cut, try not to enforce a rigid schedule. Let the artist clear his or her head whenever they want. Let them walk outside, or call their friends, or grab a coffee. For some artists, it helps to know that they can release stress whenever they want, and not have to wig out because a track must get cut in an hour, or whatever. This one will probably kill you (we all dig maximum productivity), but loosening up the schedule can pay big dividends when an artist walks back in the studio and unleashes a performance that blows your mind. EQ

HOME BREW ADR, PART ONE

by Buddy Saleman

ADR (Automated Dialog Replacement) is basically the act of restoring film dialog that has been compromised by various technical glitches. ADR can be needed because an actor's voice was compromised by noise on the set, or because a different language is needed for international versions, or because an actor can't dance and sing at the same time.

At this point, you may be asking yourself, "Why should I care?"

Well, consider that the independent film community is growing at lightning speeds, and video technology is growing right with it. Your next-door neighbor could be the next James Cameron, Kathryn Bigelow, or Alfred Hitchcock, and you may have a chance to work with them from the beginning. In addition, indie filmmakers don't have near the budgets of the big movie studios, but they still need much the same audio work done—just for far less dollars. Are you seeing the land of opportunity come into view?

Until recently, it would be near impossible for someone with a home studio to do ADR, as it required specialized training and high-end gear. Today, however, most DAWs can deliver the technical goods, and some audio-post-production tips can help unlock the secrets of effective ADR recording. The ultimate goal of ADR is to let the viewer think about the story, and not struggle to understand the dialog, or wonder why sounds keep changing around. Trust me, achieving that goal is harder than it sounds. Next issue, we'll detail an actual ADR session, but for now, I'll list the basic tools you'll need to explore doing some thrilling film sound at home.

What You'll Need

Microphones. When you replace dialog, you'll need to ensure the tones and timbres are very close to what was originally recorded on the set. It would be quite jarring if a viewer were to hear a taxi driver speak in a resonant baritone for one line, and then hear the next line sounding thin and brittle. To match the on-set sounds, you'll need a reasonable range of microphones, from small- and large-diaphragm dynamics to small- and large-diaphragm condensers. You don't have to have the best of everything, because the mic of choice for location sound is typically something on the order of a Sennheiser ME 66—a mid-priced, shotgun-style condenser.

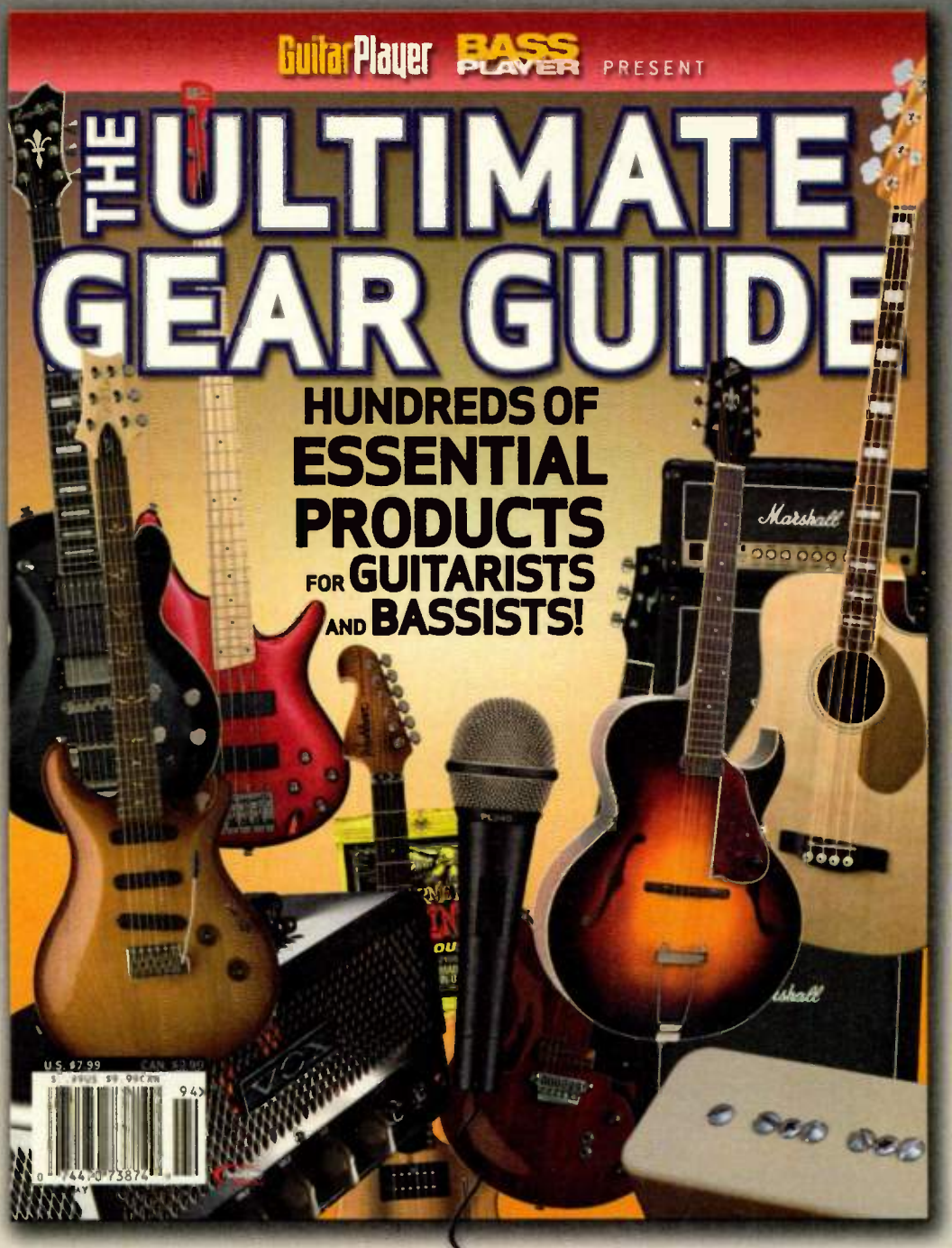
Monitors. The actor will need to watch the film in order to match the onscreen mouth movements to the dialog being replaced. This monitor can be anything from a second computer screen to a dedicated TV-style monitor. If you go with the TV screen, you'll likely need a digital-video converter. [*Tip: Canopus makes great cheap solutions.*] And don't forget that the engineer will need a monitor, as well.

The Film. Unfortunately, most filmmakers won't part with their movie until the last minute, so you'll need to be okay with delivering super-precise, time-consuming audio work on a very tight deadline. If possible, get a rough cut as early as you can, so that you can familiarize yourself with the project "off-the-clock." Then, when the talent arrives, you'll have a better idea of how to work with certain cues. Warning: Make sure that whatever footage you get is the picture-lock version. Picture lock is the very last edit the filmmaker does before the movie goes in for color correction (the visual mastering process). If you are working with an edit that is not a picture lock, you're in danger of replacing items that will be out of sync when you get the next edit version.

Directions. You know the drill—some creative people are better at giving clear and explicit directions than others. But when you're replacing dialog, in order to avoid unnecessary stress, you'll need a specific list of the dialog parts you will be replacing.

In addition, you'll need a list of the ambient sounds required for each scene. Remember, when you replace dialog, you are also replacing the ambient cues captured on the set. For example, picture a bartender speaking in a crowded bar. When he or she was recorded on set, some elements of the crowd noise and ambience leaked into the mic—elements that obviously will be missing when you replace the dialog in your studio. Sometimes, the film soundperson will provide you with ambient sounds for each scene, but you should also be prepared to "invent" ambiences that match the scene's sound design. After all, you don't want the replaced dialog to be shockingly obvious because the crowd noise dips or disappears for a few lines.

See the July 2010 issue of EQ *for a step-by-step guide to ADR tracking.*



AVAILABLE ON NEWSSTANDS NOW

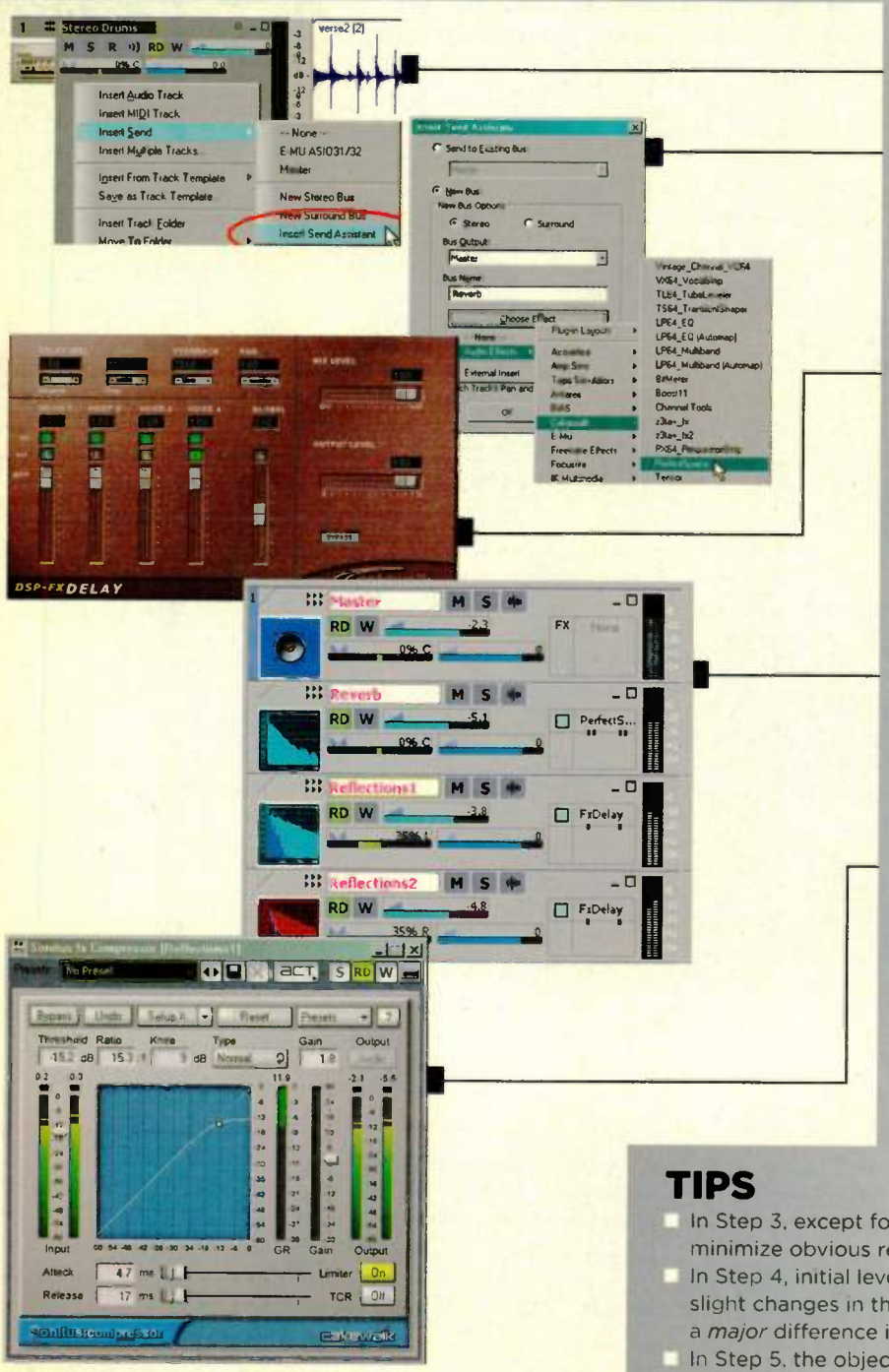
BY CRAIG ANDERTON

CAKEWALK SONAR 8.5

Synthesize room mics with very short delays

OBJECTIVE: Give a more realistic ambient sound than reverb alone can provide.

BACKGROUND: Real acoustic spaces have multiple (and diverse) early reflections, which electronic reverb has a hard time simulating. So, we'll augment the early reflections electronically, then add reverb. To simplify matters, we'll use a mixed stereo drums output, and apply our "room mic" to the entire kit.



STEPS

1. Right-click on a blank space in the drum track and go *Insert Send > Insert Send Assistant.*
2. Check New Bus, check Pre Fader, chooser Master as the bus output, and click on Choose Effect to choose your desired reverb (*e.g.*, PerfectSpace). Click on OK. Similarly, create two additional buses, name them Reflections 1 and Reflections 2, and choose the Cakewalk fxDelay multitap delay effect in each bus.
3. fxDelay has four independent delay lines, each with individual Delay, Feedback, Level, and Pan controls. Set the Reflections1 fxDelay times for 3ms, 5ms, 7ms, and 11ms, and feedback for each tap to 20%; pan the longer delays full left and right, and the shorter ones center-left and center-right. Mix level should be 100% wet. Set the Reflections2 parameters similarly except fxDelay times should be 13ms, 21ms, 23ms, and 25ms.
4. Edit the levels to taste. Try this: Adjust the dry drums level as desired. Pan the Reflections1 bus about 35% left, and Reflections2 about 35% right, with bus levels set for a good stereo balance and "full" sound. Next, bring up the Reverb bus fader to add "body."
5. For each Reflections bus, add a Sonitus:fx Compressor after the Delay. Program the attack for around 4–5ms to let through the initial drum transient "crack," turn off TCR, and specify a *short* release time—around 20 to 50ms, or even shorter. Set the Threshold for around 8–9dB of gain reduction.
6. Tweak the various effects and track parameters for the best possible sound. This takes a little effort, but it's worth it.

TIPS

- In Step 3, except for 25ms the delays are prime numbers to minimize obvious resonances.
- In Step 4, initial levels for each delay line are up full, but even slight changes in the panning, delay, or delay line levels can make a *major* difference in the overall sound. Experiment!
- In Step 5, the object is to add the "squashed room mic" sound favored for much rock music. For a more natural sound, don't add compression.

The John Lennon

SONGWRITING CONTEST

Categories

Rock World
Gospel/Inspirational
Hip-Hop Children's Electronic
Pop Folk Rhythm & Blues
Jazz Country Latin

Awards and Prizes

$20,000 for the Maxell Song of the Year
$120,000 in Project Studio Equipment
12,000 Custom CDs Courtesy of Disc Makers
Over $275,000 in Cash Awards and Prizes
Apple Computer with Cinema Display

ENTER your original songs

Download an application or Upload your entries

jlsc.com

Sponsored by: maxell Roland DISC MAKERS Godin guitars NAMM believe in music EDIROL by Roland propellerhead audio-technica Musician's Friend sonicbids ableton BOSS Ampeg MACKIE. CRATE broadjam DIGITAL MEDIA Academy Sibelius

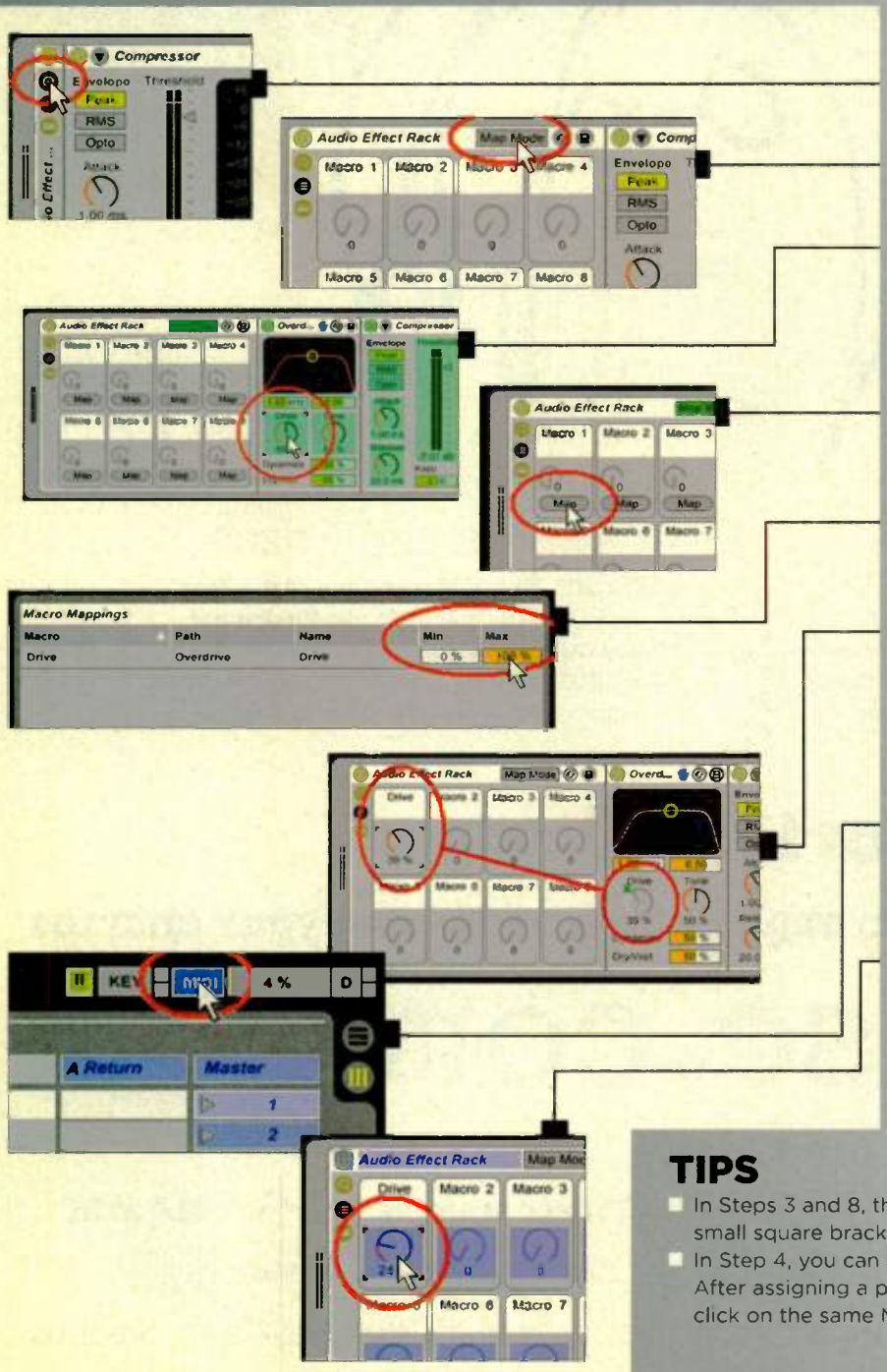
BY CRAIG ANDERTON

ABLETON LIVE 8

Control rack parameters with Macro Controls

OBJECTIVE: Make it easier to deal with the variety of parameters you'll find in a typical rack by bringing out crucial parameters to a consolidated set of Macro Controls.

BACKGROUND: Live lets you create "virtual racks" of audio processors (you can also create Drum, MIDI, and Instrument racks). As these can be quite complex, even encompassing parallel effects chains, you can assign critical parameters to easily accessed Macro controls for realtime tweaking or MIDI control. We'll assume you already have a rack set up.



STEPS

1. Click on the rack's Show/Hide Macro Controls button.

2. When the Macro section appears, click on the Map Mode button.

3. After clicking on Map Mode, any parameter that can be assigned to a Macro Control will be highlighted. Click on an effect parameter that you want to assign to a Macro Control (in this screen shot, it's Drive).

4. Click on a Macro Control's Map button. The parameter selected in Step 3 is now linked to the Macro Control.

5. When in Map Mode, a list of Macro Mappings is visible. You can set a parameter's minimum and maximum range as desired.

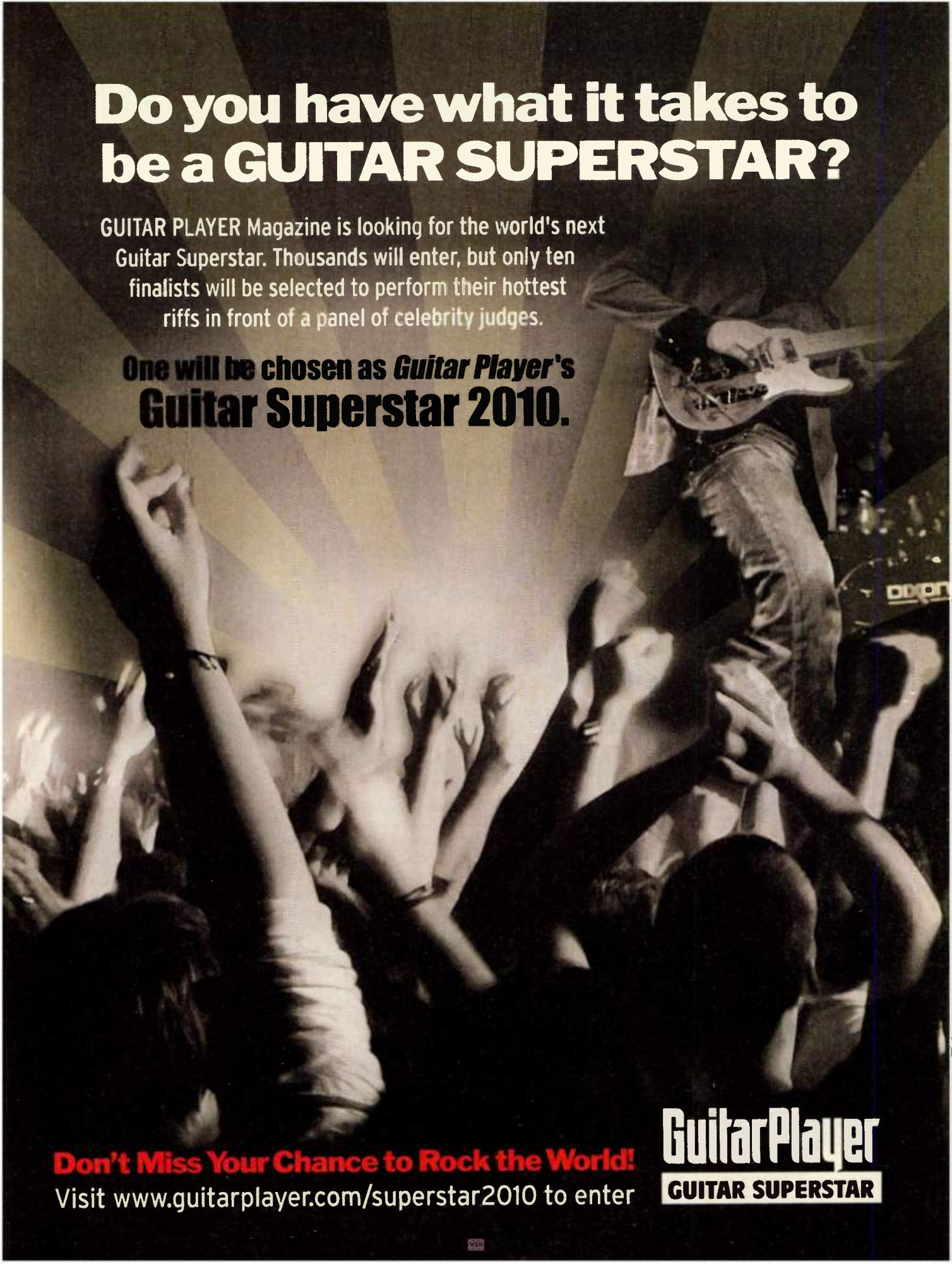
6. Click on the Map Mode button again to exit map mode. The Macro Control defaults to showing the target parameter's name, and the target parameter has a small green dot in the upper left to indicate that it's linked to a Macro Control.

7. To control a Macro Control with an external MIDI control surface, click on the MIDI Map Mode button in the upper right. MIDI-assignable parameters will be highlighted.

8. Click on the Macro Control you want to link to MIDI, then move the physical hardware control you want to assign. As soon as you exit MIDI Map Mode, the hardware control will change the Macro Control's setting.

TIPS

- In Steps 3 and 8, the selected parameter's highlight will have small square brackets in the corners.
- In Step 4, you can assign multiple parameters to a Macro Control. After assigning a parameter, click on the next parameter, then click on the same Macro Control's Map button.


Do you have what it takes to be a GUITAR SUPERSTAR?
GUITAR PLAYER Magazine is looking for the world's next Guitar Superstar. Thousands will enter, but only ten finalists will be selected to perform their hottest riffs in front of a panel of celebrity judges.
One will be chosen as Guitar Player's Guitar Superstar 2010.
Don't Miss Your Chance to Rock the World!
Visit www.guitarplayer.com/superstar2010 to enter
GuitarPlayer
GUITAR SUPERSTAR

ROUNDUP: NEW DIRECTIONS IN PLUG-INS

We review plug-ins from six companies that stretch what plug-ins can do

by Craig Anderton

Here's the story behind this roundup: Plug-ins are being introduced at a dizzying rate, so how are you going to know what's worth checking out? By reading *EQ*, of course. After sifting through the latest releases, these plug-ins were chosen because they're all classy, well-engineered audio tools—and all have free demos available, so you can decide for yourself what you think of them. Of course, there are other great plug-ins out there; but we only have so much space.

Plug-ins have gone from basic designs intended to provide common processing functions to processors that can do almost anything—from emulate analog gear with uncanny accuracy to mate synth modules with audio. Keep reading to get a handle on the current state of the art.

INTER-SAMPLE CLIPPING

Most digital meters measure the amplitude of the samples themselves. However, when these samples are reconstructed via digital-to-analog conversion, a curve might be created between samples that actually exceeds the level of the samples themselves. This is called *inter-sample clipping*, and can lead to distortion even if the meters themselves don't show this. For a full discussion of inter-sample clipping, as well as free metering software you can download, go to www.solidstatelogic.com/music/X-ISM/index.asp.

PSP Audioware Xenon

THE SPECS

Operating system: Minimum OS Windows XP with SP2, Mac OS X 10.4
Formats: VST, RTAS (Pro Tools TDM/LE 7.3 or higher), AU
Copy protection: Authorization code or iLok
Trial version: Time-limited to 14 days
Website: www.pspaudioware.com
Street price: $249, available from online store

THE CONTEXT

Ah yes . . . the loudness wars. Everyone wants LOUD, and that's easy to do; but loud and *good* is much tougher. Quality is up to the skill of the mastering engineer, and the willingness of the client to trade off a few dB of level for better dynamics. However, the tools you use are also crucial. That freeware maximizer/limiter you downloaded will work; just don't expect a clean, transparent sound.

Which brings us to Xenon. I think PSP Audioware's plug-ins are underrated, but the pros know: Engineers like Bob Katz, Bob Ludwig, and Bob Olhsson are among those who sing Xenon's praises—and with good reason.

OVERVIEW

Xenon is a full-band (not multiband), dual-stage limiter plug-in with 64-bit internal processing that operates at sample rates up to 192kHz. The first stage applies gain reduction, but lets through transients based on the attack time. The second stage clamps the transients through brickwall limiting, but leaves the main signal alone. The result is a more natural, forgiving gain reduction process combined with strict transient limiting.

There are four main elements:

Detector. This offers various transient detection options, and the ability to either clip transients or use look-ahead to predict transients, with the latter lowering the gain for a smoother sound. You can also over sample the detector (very cool) to avoid intersample clipping (see sidebar on page 52).

Metering. Xenon incorporates Bob Katz's K-System for metering. In a nutshell, Katz recommends using a consistent monitoring level; but he's done something about it by devising a metering system that promotes using standardized levels, and shows a more connected relationship between loudness and headroom. (To get the full story on the K-System, go to www.digido.com/level-practices-part-2-includes-the-k-system.html.) Xenon's metering also estimates the real, post-converter level to avoid inter-sample clipping.

Leveler. This section does the squashing, and includes a minimal set of controls. The clever feature here is that for loud sections, Xenon reduces the gain somewhat before limiting the signal. This gives a more natural sound because Xenon isn't squashing really loud signals, and also avoids the dreaded "too much limiting actually makes it sound quieter" problem.

Bit depth converter with noise shaping. As Xenon is intended for mastering, you can downshift a high-resolution signal's word length for such tasks as creating a Red Book CD. Dithering is done via triangular noise generation, with three types of noise shaping.

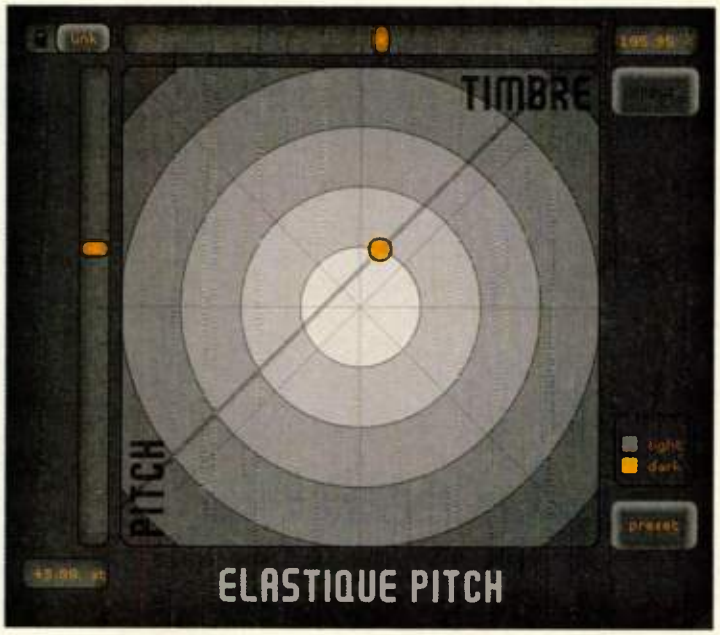
IN USE

Xenon does the hard work behind the scenes, so you don't really have to work too hard to get a good sound. After setting the input level, you choose how gentle or tough you want the first limiting stage to be with the transients. An Input control lets you push the limiting harder for a more squashed sound, while the Link knob sets the independence of the two limiting stages, and the Leveler adjusts how much loud material is reduced before limiting is applied. Simple, but effective.

CONCLUSIONS

If you're looking for a squashed "effect," this probably isn't the plug-in for you—you have to hit the input *really* hard to get obvious squashing. But if you value transparency and a loud sound without actually sounding squashed, Xenon does an exemplary job. And while designed for mastering, it's excellent with individual tracks, particularly drums. If you want to win the loudness wars, this does the job—but without the bloodshed.

zplane Elastique Pitch



THE SPECS
Operating system: Minimum OS Windows XP/2000, Mac OS X 10.4
Formats: VST, RTAS (Pro Tools TDM/LE 7.4 or higher), AU
Copy protection: Serial number and authorization code
Trial version: Mutes audio periodically
Website: www.zplane.de
Street price: $199, available from online store

THE CONTEXT
Pitch shifting digital audio is hard to do, but can accomplish tasks such as transposing an instrumental track so it fits a vocalist's range to creating crazy special effects by transposing a signal beyond any rational amount. zplane has specialized in high-quality pitch-shifting algorithms, and licensed those algorithms to various manufacturers. But now zplane's élastique algorithms are available as a plug-in for VST, AU, and RTAS. Note that this is about pitch shifting only—not time-stretching.

OVERVIEW
Here are the main Elastique Pitch components.

Pitch/Timbre XY graphical control. This is the interface's main part, with sliders for pitch shift and formant (both up to 312 semitones). Linking them causes formant changes to track pitch; I usually start off with them linked, then unlink and tweak the formant control for the desired timbre. Like most pitch shifters, the quality deteriorates with greater transposition; unlike most, the sound quality is extremely good with transpositions of a few semitones or less. With maximum transpositions, the sound quality is sufficient for great special effects—mixing it with straight guitar gave some good 12-string emulations.

MIDI. If inserted as an instrument, Elastique Pitch can respond to MIDI notes to change pitch and formant (these parameters are also automatable). However, recalculation isn't instant; if you shift pitch on a sustained note, you'll hear a short portamento effect. Also, the note doesn't latch—as soon as you release the key, the pitch slides back to 0 pitch and formant, regardless of whether you've set a different initial value. But you can indeed take a single note and pitch it, and an Arpeggio MIDI plug-in can be a lot of fun.

Input. This restricts the input to certain frequency ranges, which improves performance by simplifying Elastique Pitch's analysis process.

Presets. There are presets for common scenarios where pitch may have been altered, such as when a 44.1kHz signal was re-sampled to 48kHz without suitable conversion.

IN USE
Elastique Pitch works in near-real time rather than having to do offline processing, which is convenient. However, the delay through it is significant—so if your host uses path delay compensation, playing through Elastique Pitch in real time is difficult—if not impossible—due to the delay.

Interestingly, a single instance (when inserted as an effect, not an instrument) can process four stereo or eight mono signals simultaneously. It does this by exposing its inputs as if it was a standard host output, so you can send a track to this input. This feature is handy for when you want the same amount of transposition applied to several streams at the same time, like transposing guitar, bass, and vocals while leaving drums untouched.

CONCLUSIONS
While suitable for multitrack hosts, Elastique Pitch is also ideal for stereo digital audio editors (or surround, if the editor accommodates multiple channels) when you want to raise or lower the pitch of program material by a few semitones. I've also used it on voice for narration to give a slightly different timbre, and it can also give truly freakazoid alien voices.

Although most host programs include some kind of pitch-shifting option, the quality can be iffy. Elastique Pitch gives pitch shifting with solid fidelity at a reasonable price, and while zplane hasn't quite figured out how to beat the laws of physics, the company certainly knows how to bend them.

XILS 3 Modular Synthesizer

THE SPECS

Operating system: Minimum OS Windows XP, Mac OS X 10.3.9
Formats: VST, RTAS (Pro Tools TDM/LE 7.0 or higher), AU; no standalone version
Copy protection: iLok or Syncrosoft eLicenser
Trial version: Time-limited but full-feature version for iLok or Syncrosoft eLicenser owners, limited feature version requires no dongle (outputs silence periodically; no saving or automation).
Web site: www.xils-lab.com
Street price: $199 (LE effects-oriented version for $49), available from online store

THE CONTEXT

The EMS VCS3 was one of the early, seminal synths from the '60s. It eliminated patch cords by using a cross-point pin matrix, with outputs on the vertical axis, and inputs on the horizontal one; sticking a pin at the junction of an input and output connected them. The XILS 3 is more "inspired by" the VCS3 than being a direct emulation, but the main reason we're covering it here is because it can also be inserted as an effect for processing audio, either from a host track or from a real-time input signal.

OVERVIEW

This is not a synth for neophytes. Although it includes presets, to get the most out of it (especially as an effects processor) you need to know synth programming—and the XILS 3 isn't always intuitively obvious, so there's a learning curve.

The interface has two main panels: The right panel is nominally the "audio" section, with three oscillators, filter, envelope shaper, noise generator, reverb, ring modulation, and one of four virtual pin matrices. The left panel is more about control, with several tabbed views—modules, matrix, keyboard, sequencer, input, and effects (chorus and delay). The other pin matrices control routing for the various control elements.

While the synth is very cool and deserves its own review, let's concentrate on the input section as that relates to processing external audio signals. The chain starts with a noise gate, then proceeds to a transient detector that provides a trigger signal (*e.g.*, for envelopes). There's also an envelope follower, and a pitch tracker that extracts the fundamental from the input signal and turns it into a virtual control voltage.

IN USE

With guitar, the envelope follower did a great job with filtering, while the pitch tracker works about as well as expected—you won't get glitchless note-to-pitch conversion, but it's useful for effects. I was surprised at the transient module; it detects plucks very cleanly, so triggering envelopes yields effects like super-sharp decays and attack delays. It's also possible to use triggers for more esoteric functions, like resetting the step sequencer or LFO. With drums, the gating and filtering can be very effective, and adds another dimension when patched in parallel with the dry drum sound.

If you're going to use the XILS 3 as a processor, you'll need to do a lot of tweaking and routing to get what you want—so create a preset when you come up with something cool. You'll find the manual helpful, but there's no substitute for spending some quality time to see what this baby can do. In return, you'll be able to get effects that are unobtainable with conventional signal processors.

CONCLUSIONS

XILS 3 isn't the only synth that can serve as an effects processor, but for hardcore synth fans, it exposes lots of parameters and control options—you can do far more than just throw a lowpass filter on a signal. Beyond the processing, though, this is an extremely capable synth that takes advantage of its pseudo-modular nature to allow a wide range of patches and effects, particularly because so much attention is paid to control sources and routing.

Virtual instruments are becoming less "me too" and more creative, which is a welcome trend. XILS 3 exemplifies that trend, so if you're looking for something different and occasionally quirky—just like real analog synthesizers—download the demo and start programming.

UAD Manley Massive Passive

THE SPECS

Operating system: Minimum OS Windows XP, Mac OS X 10.4; requires UAD-2 DSP accelerator card
Formats: VST, RTAS, AU
Copy protection: Online authorization
Trial version: Time-limited to 15 days
Web site: www.uaudio.com
Street price: $299, available from online store

THE CONTEXT

I'm not a snob about boutique audio gear. Some of it sounds wonderful; some of it leaves me cold . . . and I'm not always sure there's a correlation with price, either. So I'm doubly skeptical about modeling a complex piece of analog EQ that's known for the ephemeral concept of "character" rather than the easily measured trait of surgical precision. Besides, a unit like this depends on the engineer's concept of "good sound," as much of that sound is locked into the components and design—controls do only so much.

But the Manley Massive Passive (MMP for short) has a few tricks up its sleeve. First, the hardware uses a passive approach to filtering, which results in gentler curves. (Incidentally, guitar amps typically use passive tone controls.) The sound is different from, say, a parametric EQ, especially because the EQs are in parallel. Second, Universal Audio did the modeling, and their specialty is capturing analog—a necessary requirement for this project.

OVERVIEW

The four EQ bands per channel can be linked or adjusted separately; each has different ranges (low, low mid, high mid and high), a shelf or bell response (you can even stack multiple shelves), and a boost/cut/out switch. In addition to frequency and bandwidth knobs, the gain controls work differently than active EQs; when fully counter-clockwise they have no effect, while turning clockwise increases the amount of boost or cut, as set by the switch. There are also two master filters, highpass and lowpass. A link switch links the controls, but does not allow offsets between them.

You get two versions of the MMP, standard and mastering. The mastering version has slightly different highpass/lowpass frequency choices and slopes, "stepped" controls for repeatability (although of course presets are pretty repeatable, too!), and reduced gain ranges for finer resolution. Note that the EQ in/out switch is different from the power switch, as it's not a "true bypass"—some of the hardware's characteristics remain.

IN USE

The MMP demands that you use your ears—not as a cop-out, but because the controls have a degree of interaction not found in typical active gear (active stages isolate circuit elements from each other). Forget your preconceptions about EQ unless you're conversant with using older passive units, like the Pultec; for example, the gain and bandwidth controls don't operate independently.

The MMP is not about fixes, like adding a sharp peak to increase electric bass pick sounds—it's about creating a particular tonal quality. In this respect, it messes minimally with the signal despite giving strong results. I often found myself using settings that on paper, made no sense but in practice, sounded great. Although I tend to favor cutting with EQ, boosting the MMP is very effective too.

CONCLUSIONS

It's hard to describe the MMP, which is why I've posted an audio example of what it can do at www.eqmag.com. The unmastered cut had too much bass, and a blah upper midrange. With a standard EQ, I would have cut the bass, and added some high end. With the MMP, I instead found that boosting around 500Hz and 1kHz added "meat" in the midrange that both fattened *and* added more definition; because it was a boost, the bass fell into place. A little bit of boost at 6.2kHz finished things off.

I really didn't expect to get too excited about this plug-in, but the unit itself makes some great design decisions about what delivers "musical" EQ, and UA captured those qualities in a plug-in. As a result, if you're looking for a bit of that "analog magic," yes—you can find it in a digital audio plug-in. Thumbs up to Manley for an inspiring piece of gear, and to UA for getting it right.

McDSP Retro Pack

THE SPECS
Operating system: Minimum OS Windows XP, Mac OS X 10.4; requires Pro Tools 7.x or higher
Formats: RTAS, AudioSuite, TDM
Copy protection: iLok
Trial version: Time-limited to 14 days
Website: www.mcdsp.com
Street price: Native $395, TDM $795, available from online store

THE CONTEXT
McDSP takes a different approach from some companies, preferring to create original designs rather than model specific pieces of gear. For example, I love their Chrome Tone guitar amp, but they don't claim it sounds like a Marshall or whatever; it just sounds like a really sweet guitar amp on its own merits. This allows McDSP the freedom to bend the rules as needed to make what they consider the right product, and the Retro Pack series is no exception.

OVERVIEW
The series consists of three processors. The 4030 Retro Compressor control set is straightforward, but with a twist; there's a mix control to blend compressed and uncompressed sounds, along with a key input. The 4020 Retro EQ has four bands of EQ (high and low shelf, with high mid and low mid parametric stages). These have frequency controls over appropriate ranges and a boost/cut (Gain) control. There's no bandwidth control for the parametric stages, but the slope changes shape to a more narrow response at higher gains. There are also separate highpass and lowpass filters, and phase flippers for each channel.

Finally, the 4040 Retro Limiter is as simple as it gets, providing a brickwall response with only two controls—Ceiling and Gain (which determines the amount of squashing).

IN USE
Really, how interesting can these boring types of processors be? Well, pretty interesting, actually. My main impression with all of them is they have a relatively light touch on the signal, even with fairly extreme control settings. For example, I tried clamping down hard with the minimum attack time on drum transients, but they didn't sound spiky, or throw the gain reduction into a fit. Similarly, you can really push the Limiter hard, but it retains the signal's integrity very well. And the EQ has a sort of active-meets-passive sound quality, where the sound is detailed, but also has a more organic quality than plug-ins that take a strictly digital approach.

The EQ has another twist because of the adaptive slope. This is the perfect EQ for those in a hurry, because when you want "more" gain, you also get "more" sharpness. My only complaint is I wish they'd raised the highest highpass frequency, and lowered the lowest lowpass frequency—that would make it ideal for sharp, DJ-style cuts (yes, I know that's not the intended application, but it would sound fantastic in this context). I also find the GUI kinda big, but then again it does look cool.

It also seems that when you push the signal, it stays clean but in addition, acquires some "girth" for lack of a better word. McDSP claims to have some kind of proprietary analog saturation mojo, which I presume is what accounts for this. In any event, this is the quality I would associate with the "retro" sound.

CONCLUSIONS
I chose McDSP for this roundup because I knew I could count on them to do something interesting. Sure, these are bread-and-butter processors—but instead of getting Wonder Break and margarine, you get freshly-baked French bread and sweet cream butter. These are simple plug-ins, but by no means simplistic ones.

Waves Artist Series Collections

THE SPECS
Operating system: Minimum OS Windows XP, Mac OS X 10.4.11; see the Tech Specs section at Wavesupport.net for detailed host support information
Formats: RTAS, AudioSuite, VST, AU
Copy protection: iLok
Trial version: Time-limited to 7 days
Web site: www.waves.com
Street price: $830 each, available from online store

THE CONTEXT
The Waves Artist Collections includes plug-in sets designed in conjunction with Chris Lord-Alge, Tony Maserati, and Eddie Kramer. These go beyond the usual collection of processors, and are personalized to a surprising degree to reflect the production and mixing styles of these producers.

Of all the plug-ins presented here, these benefit the most from having demos available: Each collection is far richer, and more interesting, than could be adequately described in the allotted space—it's worth the download.

OVERVIEW
Each collection includes "channel strips" for bass, electric guitar, vocals, and drums; Lord-Alge's adds Effects and Unplugged (for acoustic instruments), Maserati adds Acoustic Guitar Designer and Harmonics Generator (an "exciter"-type sound), while Kramer adds an Effects channel.

If you can only afford one, how do you know which to choose? I don't think the determining factor should be "I want to sound like 'X'," but rather, "I work in the same kind of musical genre as 'X'." For example, Kramer's take on processing is very oriented around hard, more classic rock, while Maserati leans toward pop and hip-hop and Lord-Alge's processors are at home with rock you'd hear on the radio. However, of the three, I would consider Lord-Alge's to be the most general-purpose. I get the impression that he designed his collection more as a toolkit, while Maserati and Kramer stayed more with the concept of giving you their sound "in the box."

IN USE
I was fortunate to have waited just long enough to be able to demo all three sets. My preferred test method was to pull up an appropriate track (*e.g.*, a vocal track for the vocal processors), and put each related Artist Collection preset in series. I could then switch among them to hear what they contributed to the sound.

For example, with bass it was clear Maserati likes round, full sounds on electric bass, but his plug-ins add processing for synth bass as well (although this can also impart a synth vibe to electric bass). Kramer went for crunch and compression, giving a forceful bass sound capable of standing its ground with rock drums. Lord-Alge, on the other hand, provided more of a construction kit for bass sounds, including EQ, compression, subharmonic, distortion, and modulation effects, each with several variations.

The drum strips for all three are intended to be used on individual drum tracks (kick, snare, etc.) rather than full premixed drums, although there are settings for overhead and room mics. CPU drain on these is reasonable, so with all but the slowest computers, you'll have no trouble inserting a plug-in for each drum track.

There were a few times when I used two of the Artist Collection effects in series or parallel, sometimes with excellent results. One favorite: Kramer's bass module set for very little crunch and lots of compression, combined with Masterati's set for the roundest possible tone, and the treble fully rolled off. The sound was huge, full, and aggressive. While I don't know how many will have the opportunity to do this kind of mix and match, and while it's certainly not essential, it's a pleasantly unexpected perq.

CONCLUSIONS
These are pricey, but you're getting several plug-ins within each set that can be used individually and of course, instantiated as many times as your computer can handle. More importantly, they move beyond emulating particular *technologies* to emulating particular *approaches* to processing. That alone is newsworthy, but what counts is that the plug-ins achieve this goal. There's also something to be said for the graphics, with Maserati's and Kramer's adding real flair, and Lord-Alge's taking a more down-to-business approach—not unlike the plug-ins themselves.

Just when you think you've seen everything in plug-ins, something like this comes along. They're almost like "style" plug-ins compared to the standard plug-in effects we've come to expect, and I predict we're going to see more plug-ins taking this direction in the years ahead. EQ

Customize your all-in-one MOTU studio

Run DP7 on Apple's latest multicore iMacs, connect the UltraLite-mk3 with HYBRID technology, then customize your system with the very latest desktop studio technology.

Euphonix Artist Series
High-end console technology

Together, **MC Transport**, **MC Control**, and **MC Mix** give you access to almost every facet of your Digital Performer 7 project for an unprecedented "hands-on" editing and mixing experience. In-depth, custom-programmed support for the EuCon protocol brings Euphonix' high-end console technology to your MOTU desktop studio in a compact design that fits perfectly in front of your iMac.

Apple iMac
The all-in-one that's one of a kind.

Apple introduced the first iMac more than a decade ago. And the design philosophy remains the same: an all-in-one computer that's as powerful as it is beautiful. A 21.5-inch or 27-inch display with edge-to-edge glass covers nearly the entire front of the unified enclosure. This latest iMac has a 3.06GHz Intel Core 2 Duo processor and comes loaded with 4GB (up to 16GB) of RAM and a 1TB hard drive. It's the perfect all-in-one centerpiece for your MOTU studio.

www.sweetwater.com MOTU

MOTU UltraLite-mk3 Hybrid

The world's first hybrid FireWire•USB2 I/O

Connect to any current Mac or PC via either FireWire 400 or hi-speed USB2 and enjoy the same pristine audio quality and zero-latency on-board mixing performance either way. Includes classic reverb, modeled analog EQ, vintage compression, and advanced signal analysis tools including a full-screen real-time FFT display, a spectrogram "waterfall," an oscilloscope, an X-Y plot, and phase analysis.

PreSonus BlueTube Dual Path

2-channel tube preamp

Looking for a versatile preamp with lots of character? The BlueTube DP gives you two sonic colors in one box! This stereo microphone/instrument preamplifier delivers dual path technology, enabling separate control between a transparent solid-state preamp stage and a tube preamp stage, for a wide range of sounds from pristine and clear to fat and warm. The BlueTube DP is the perfect tube preamp complement for your MOTU desktop studio.

Neumann TLM 102

Sweet little microphone — huge Neumann sound

Don't let its small size fool you — only 4.5" tall — the new TLM 102 large-diaphragm microphone makes a perfect addition to any studio, from project to professional. Featuring transformerless circuitry, a foam-lined grille to reduce "p" and "s" sounds and an SPL rating of up to 144 dB, the TLM 102 brings the legendary Neumann sound home at a price everyone can afford.

BIAS Peak Pro 6

Evolution of an award-winning standard

Whether you're a musician, sound designer, audio editor, multimedia producer, or mastering engineer, Peak Pro 6 offers more creative potential than ever before. Used side-by-side or launched directly from within DP7, Peak Pro 6 streamlines your workflow with industry-renowned sonic quality and precision. For additional mastering, restoration, and DDP 2.0 delivery power, step up to Peak Pro XT 6.

Authorized Reseller

Sweetwater
Music Instruments & Pro Audio

(800) 222-4700

SOUNDS

UEBERSCHALL SOUNDS OF BERLIN

I love Berlin—maybe because it's filled with reminders that sometimes, good prevails. Big Nazi buildings now house an entirely different government, the guards waiting to machine gun citizens are gone, and the wall is down. What's more, Berlin is now *the* hot club scene, and *Sounds of Berlin* encapsulates that scene with 75 construction kits, divided by time increments (*e.g.*, the 12PM–4PM "afterhours" set is more mellow than the 3AM–8AM set). Tempos range from 120–130 BPM, although the Elastik playback engine allows for high-quality stretching. The kits include deconstructed and mixed riffs, playable via MIDI (controller or sequencer notes); this brings flexible, realtime control to a loop-based virtual instrument.

I'm a big fan of this kind of music, and this is the real deal: hypnotic, minimalist, highly electronic grooves that connect directly to your central nervous system. It's moody without being negative, and the slight aura of mystery matches the vibe of a darkened, smoky club. These loops show great care in both their musicality and recording; you can use them as is, or apply the Elastik engine's filtering and other processing.

Ueberschall's offerings are of uniformly high quality, and *Sounds of Berlin* is no exception. Catch the audio example at www.eqmag.com, and you'll understand why I'm so impressed. —*Craig Anderton*

Contact: Ueberschall, www.ueberschall.com
Format: DVD-ROM with 1.01GB of content (1,258 loops and samples), arranged as 75 construction kits
List price: $99.95

BIG FISH AUDIO ELEMENTAL PERCUSSION

One of my favorite loop library applications is percussion, because percussive parts are often repetitive anyway. This library is nothing but percussion, using a wide variety of percussion instruments. Tempos range from 80 to 240 BPM; you'll even find 3/4 and 5/4 loops (thank you!), as well as one-shot hits if you want to customize the loops or create your own.

The WAV files are Acidized, and stretching is effective. One handy feature is that within the folders, each file has an identifying number. Identical numbers were recorded as part of a multitrack session, and therefore work well together (*e.g.*, an 04 Tambourine part fits with an 04 Djembe part). However, these are suggestions, not restrictions, as I found that most loops with dissimilar numbers worked reasonably well as a team.

The recordings are relatively low-level; there's plenty of headroom for the transients to do their thing and as percussion is generally mixed low, you can just bring the loops in and they'll fit.

This is not an exotic library, but a utilitarian one. Having a good media browser in your host is a plus, as you can scan through the different loops and import those that strike your fancy. *Elemental Percussion* is like a good session musician who shows up on time, does what you want, doesn't require a second take—and delivers the goods. —*Craig Anderton*

Contact: Big Fish Audio, www.bigfishaudio.com
Format: Two DVD-ROMs with 3.12GB (1,410 files) of unique 24-bit/44.1kHz Acidized WAV loops (duplicated for Apple Loops/REX2/Stylus RMX) and 153MB (153 files) of one-shots
List price: $99.95

SAMPLE MAGIC DEEP TECH-HOUSE

Just when you think you're going to burn out on house music, another mutant strain pops up to keep the genre fresh. *Deep Tech-House* provides an eclectic combination of bass, drum, fx, synth, and top loops, along with "combi" loops (several compatible loops assembled as one loop) and "music" loops, which are more like chord/melodic combinations.

The loops are great, but it seems like the loop keys were chosen by throwing darts on a target with various key signatures. Fortunately, most hosts have decent pitch-shifting (or you can use a plug-in like zplane's Élastique Pitch; see the review in this issue) so those *A*♯ loops will work in, say, *C*.

Unlike some libraries, this isn't just suitable for putting together static pieces of music. You could load many of these loops into a program like Ableton Live, and with an Akai APC40 or Novation Launchpad controller, keep yourself entertained for hours. I'd definitely include some of the drum and bass loops in DJ sets to reinforce the main track, or provide a cool transition.

When it comes to house, either you like it, you don't like it, or you haven't been exposed to it. So, I've put together an audio example at www.eqmag.com that gives a reasonably good idea of what this library is about—it's definitely house, but with a more tech, minimalist groove that I find extremely appealing. —*Craig Anderton*

Contact: Sample Magic, www.samplemagic.com
Format: CD-ROM with 795MB of unique WAV (non-Acidized) loops/fx and 25MB of one-shot hits; 24-bit, 44.1kHz; loops duplicated for Apple Loops and REX; also formatted for EXS24, HALion, Kontakt 2, Reason NN-XT, and Stylus RMX
List price: $99.95

The S7 Family of Mics

ADK Microphones

Now Available

The S-7, S-7B and S-7C are the only mics that you need to make pro-quality recordings. From screaming guitars to whispered vocals, each S-7 mic has a specific character that will give you the ultimate flexibility and the best results.

SRP: S-7 = $479; S-7B = $479; S-7C = $479

www.adkmic.com

805-644-6621

Radial J+4 Stereo -10dB to +4dB Line Driver

By Radial Engineering

Now available

Converts consumer level unbalanced high-impedance signals to +4dB for broadcast, recording or live applications. Transformer isolated active buffered circuit delivers >95dB signal-to-noise and eliminates hum and buzz from ground loops.

SRP $220 USD

www.radialeng.com

604-942-1001

PROSCREEN XL Metal pop filter

Stedman Corporation

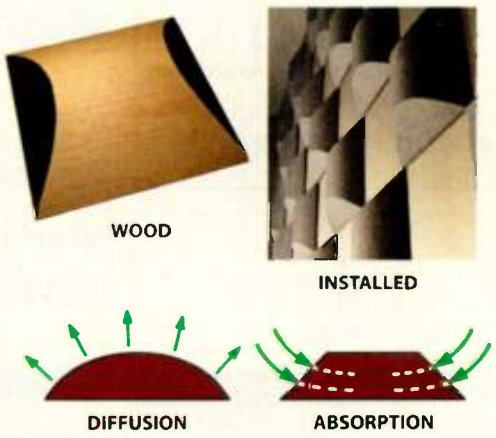
Now Available

The original Stedman Proscreen XL patented metal pop filter has undergone refinements to its proprietary metal Proscreen. These refinements keep the Proscreen at the top of the list of products designed to eliminate bursts in the studio while retaining high frequency detail. This USA made product is washable and has a lifetime warranty.

SRP: $79.00

www.stedmancorp.com

888-629-5960



ASC-COOLTRAP Absorption/Diffusion Modular Sound Panels

ASC-TubeTrap

Now Available

Convert any room or space into a professional sounding studio. Diffuse/Absorb reflections; take the room out of the mic and mix. Great for ADR, VO, foley, narration work and vocal booths.

Develop ambiance out of slap-back in control and live rooms.

SRP: $31 each, sets of 16, (fabric finish, wood extra)

www.acousticsciences.com

800-ASC-TUBE (272-8823)

CLASSIFIEDS

CATEGORIES

EDUCATION/TUTORIALS

MIXING / MASTERING

STUDIO FURNISHINGS

ACOUSTIC PRODUCTS & SERVICES

ACOUSTIC PRODUCTS & SERVICES

ACCESSORIES

DUPLICATION

BASS PLAYER LIVE!

Los Angeles

October 23–24, 2010

REGISTER NOW!

Artist Clinics · Gear Exhibits · Concert

Artist Clinics

Darryl Jones, Billy Sheehan, Alphonso Johnson, Alex Al, Steve Bailey, Andrew Gouche

More clinics, artists, and exhibitors to be announced!

Visit www.bassplayer.com

purchase tickets · stay tuned for details · sign up for the exclusive BPL! e-Newsletter

ROOM w/a VU

by Kylee Swenson

Studio name: Sweetfire Studios
Location: 424 3rd Ave., 2nd Floor, Brooklyn, NY 11214
Website: www.sweetfirestudios.com
Key Crew: Michael Barile (pictured middle), Producer/Head Engineer; Hamboussi (pictured left), Producer/Studio Manager/Art Director; Georgios Pesios (pictured right), Engineer/Session Musician; Francine Barile, Assistant Engineer/Customer Relations
Latest projects: Constantine Maroulis, Stoned Fire, DareDevil Squadron
Computer, DAW, recording hardware: (2) Apple Mac Pro 66GHz Quad-Core Intel Xeon processor 3GB, 6GB memory; (3) 640GB internal hard drives, 18x double-layer SuperDrive, (4) Alesis HD24 hard-disk recorders
Software/plug-ins: Apple Logic, MainStage; Avid Music Production Toolkit, Avid/Digidesign Pro Tools; McDSP plug-ins; Waves SSL 4000 Collection
Console: Avid Control|24, Mackie SR32•8 with a 24-channel expander board
Synths, modules: Clavinova 88 weighted keys, Fender Rhodes, Farfisa organ, M-Audio 61-Key MIDI Controller
Guitars, basses: 1985 Fender Stratocaster with scalloped fretboard, 1961 Fender P Bass, Modulus Flea Bass 4
Amps: 1978 Marshall JMP 50-Watt head, Marshall JCM 800 (modified by HMJ for Steve Stevens [Billy Idol, Michael Jackson]), Marshall JCM 800 (modified by HMJ for Scott Ian [Anthrax])
Kits/Snares: 1996 custom Drum Workshop shells; Tama Artstar shells, 1986 14"x8" Tama Artstar Snare; (2) 14"x6" Custom DW Snares
Mics: 1978 AKG C 414 EB, (2) D 112; (4) Audio-Technica AT4033; Audix i-5; Electro-Voice RE20; (2) MCA matched vintage mics; Neumann TLM 170; (4) Sennheiser e 504, e 602, MD 409 U 3, MD 421; (5) Shure SM57, (3) SM58; Studio Projects C1
EQ/Preamps: Ashly SC-66A stereo parametric EQ; Avalon Vt-737sp; (3) 1989 TL Audio Stereo Tube preamps, VI-1 8 channel valve Interface.
Compressors: Aphex Systems 661; 1973 dbx 160, 1974 dbx 161, dbx 166; 1960s Urei LA-4
Effects: Alesis MidiVerb II; dbx Subharmonic Synthesizer; Korg A1 prototype, A2; Lexicon LXP1, MPX1, PCM70, Prime Time
Room treatment: Auralex Acoustics
Power Conditioning: (4) Furman power conditioners
Monitors: Mackies, Polks, Radio Shacks, RORs, Yamaha NS10s
Headphones: Sennheiser, Sony

You say you appreciate new technology, as well as "traditional recording values." How do you strike the balance?

Barile: It's obvious what technology has done to make our lives a lot easier. However, I go back and forth in terms of what the trade-off has been. For us, the most important thing is to use *all* of the performance as much as possible. Cutting and pasting the first verse into the second loses something for me. I call it "the progression inside the progression," which is the human factor. A better way of saying it is that a drummer never plays the second verse the same way he/she plays the first verse. If you're a musician, you'll understand that playing a song affects you, so by the time you've gotten to the second verse, you've already played a chorus, which means that emotionally, you're in a different place. The same thing applies to the second chorus; it's usually more intense. It's a "progression inside a progression." This gets completely lost when you're cutting and pasting. "Reel rock" is never played that way! Technology should be used to enhance talent, not create it.

What are your goals for the studio?

Barile: It was always my intention to approach recording from the artists' perspective. I used to hate going to recording studios because of the sterile environment and being told, "You can't use this sound, or that amp." Also, playing in a telephone-booth style room 40 feet away from the drummer didn't help the vibe either. So, we created a large live-room scenario that has taken away all the things I hated about recording studios. We still have a vocal iso booth and baffles, but the way the studio was built—over 20 years ago—works to accommodate the artist. In addition to recording artists, we also do scoring, jingles, movie soundtracks, voiceovers, and editing.

What gear couldn't you live without at Sweetfire?

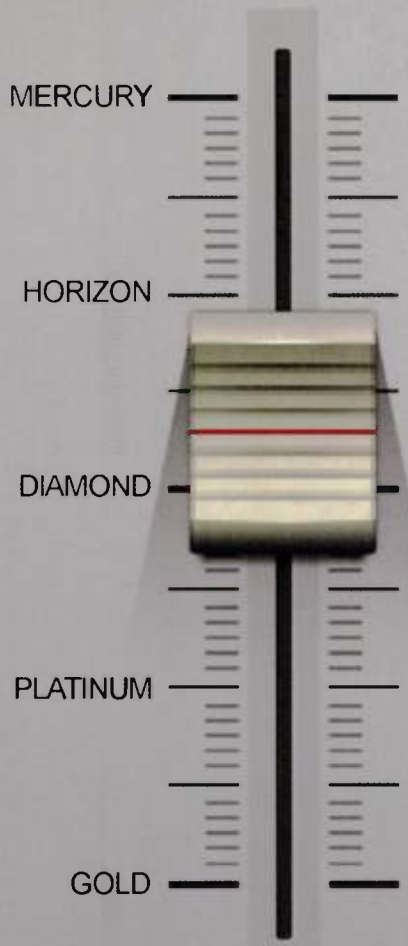
Barile: My Ears! I know it may seem egotistical, but it's true. I've been fortunate that because of my ears I've always been able to get the sound I wanted, regardless of the equipment available. With that being said, more important than the gear used is my staff and the talent that walks through our doors. Without them, what good is anything, really?

What is one "aha moment" you've had in your career as a producer?

Barile: It was learning that being the greatest songwriter, guitarist, bassist, drummer, singer, band, or musician is only half of what it takes to be successful. The other half is knowing that no one can make it on their own. There are people who do know better than you. And, for every great goal there are greater sacrifices. eq

HEY, *EQ* READERS. WANT US TO FEATURE YOUR STUDIO? SEND PICS AND INFO TO eq@musicplayer.com.

Where there's sound, there's **WAVES**.



Mercury
Over 100 plug-ins

Horizon
Over 50 plug-ins

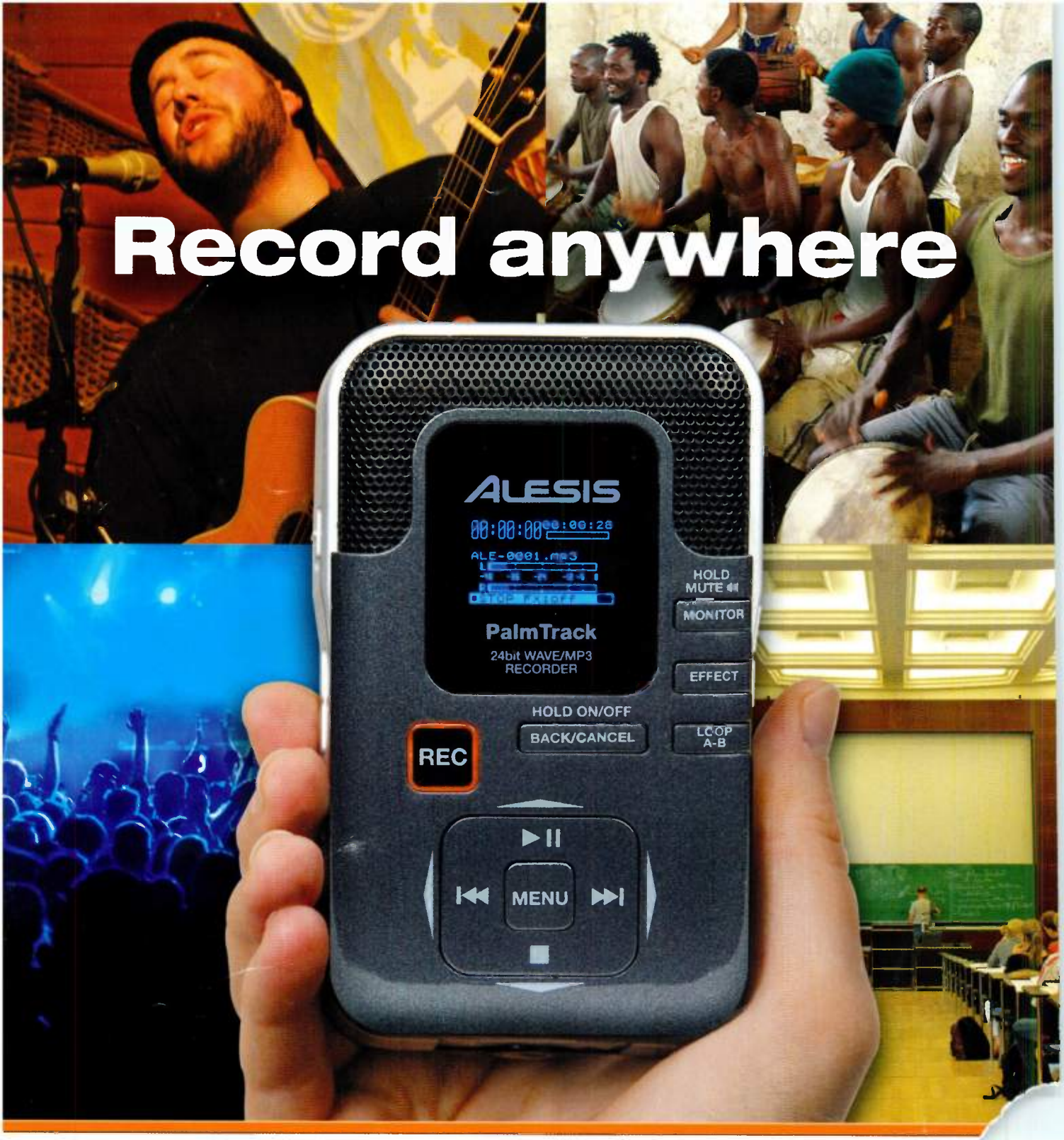
Diamond
Over 40 plug-ins

Platinum
Over 30 plug-ins

Gold
Over 20 plug-ins

WAVES

www.waves.com



From the coffeehouse to the concert hall, the classroom to a community drum circle halfway around the wo
Alesis PalmTrack puts crystal clear recording technology in the palm of your hand. Record stereo or four-capsu
omni 24-bit audio directly to an SD card, no external mics or cables required! All for just $149.

Pick up a PalmTrack today and start recording anywhere.

PALMTRACK
HANDHELD SD RECORDER

ALESIS