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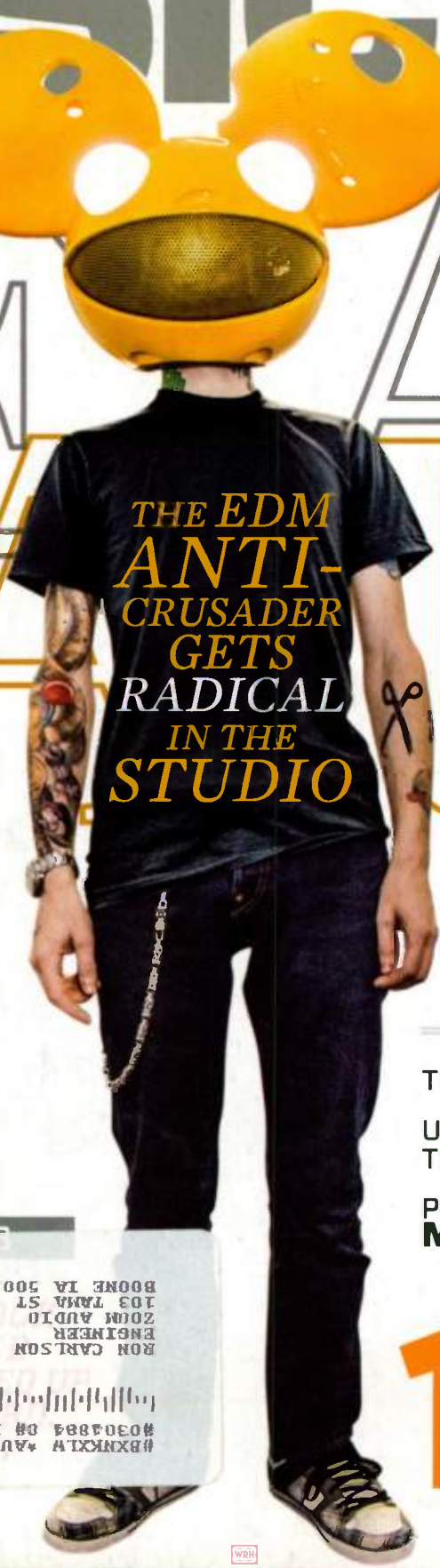
deadmau5



THE EDM ANTI-CRUSADER GETS RADICAL IN THE STUDIO

REVIEWS!

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PRODUCER SURVIVAL 2013

A MUSIC PLAYER PUBLICATION

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EDITORIAL DIRECTOR Michael Molenda
mmolenda@nbmedia.com

EXECUTIVE EDITOR Craig Anderton
canderton@nbmedia.com

EDITOR Sarah Jones
sjones@nbmedia.com

MANAGING EDITOR Debbie Greenberg
dgreenberg@nbmedia.com

CONTRIBUTORS
Michael Cooper, Steve La Cerra, Kylee Swenson Gordon, Emile Menasche, Ken Micallef, Lily Moayeri, Bill Murphy, Gino Robair, Barbara Schultz, Bud Scoppa, Tony Ware

ART DIRECTOR Damien Castaneda
dcastaneda@nbmedia.com

STAFF PHOTOGRAPHERS
Paul Haggard *phaggard@nbmedia.com*
Craig Anderton *canderton@nbmedia.com*

PUBLISHER Joe Perry
jperry@nbmedia.com, 770.343.9978

ADVERTISING DIRECTOR, NORTHWEST, MIDWEST, & NEW BUSINESS DEV.
Greg Sutton
gsutton@nbmedia.com, 925.425.9967

ADVERTISING DIRECTOR, SOUTHWEST
Albert Margolis
amargolis@nbmedia.com, 949.582.2753

ADVERTISING DIRECTOR, EAST COAST & EUROPE
Jeff Donnenwerth
jdonnenwerth@nbmedia.com, 770.643.1425

SPECIALTY SALES ASSOCIATE
Michelle Eigen
meigen@nbmedia.com, 650.238.0325

PRODUCTION MANAGER Beatrice Kim

THE NEWBAY MUSIC GROUP
VICE PRESIDENT, PUBLISHING DIRECTOR
Bill Amstutz
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EDITORIAL DIRECTOR Brad Tolinski
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Your Next Act

IT'S JANUARY, and we all have self-improvement on our minds. Normally around now I talk about setting small goals that make a measurable difference. But sometimes, you just have to go big. Is it time to take your career to the next level? We have a few ideas to help you turn dreams into reality.

Stand by an unpopular choice. Deadmau5 caught a lot of grief in the EDM world for his "DJs Hit Play" Tumblr missive last summer. Lost in the hype, though, was his focus on staying creative and moving forward with his own ideas, rather than being a follower, which he talks about in depth—along with sharing studio-production insights—in our interview on page 20.

Stop procrastinating. Being a professional producer is a real, attainable goal; if you want it, start walking the walk. Need a nudge? Get career advice from superproducers Supa Dupa, Damien Taylor, and Andrew Murdock in "Make or Break" on page 28.

Don't be afraid to reinvent yourself. Former Semisonic singer/guitarist Dan Wilson has a new life as a songwriter for hire. His career took a new trajectory when he collaborated with the Dixie Chicks on *Taking the Long Way*, and reached another high when he co-wrote/co-produced Adele's smash hit "Someone Like You." Take inspiration from his story, on page 40.

Think big, and the small steps will fall into place. What are your goals for 2013? Let us know.

SARAH JONES
EDITOR
sjones@musicplayer.com

COMMUNITY

"AUDIENCE IS ONE WORD, BUT IT'S NOT ONE PERSON. IT'S THOUSANDS OF INDIVIDUAL AND UNIQUE PEOPLE, SOME OF WHOM COME WITH THEIR OWN AGENDA, SOME WHO COME OUT OF CURIOSITY, SOME WHO ARE JUST DRAGGED ALONG, AND SOME WHO'VE BEEN THERE AND DONE THAT WITH ME FOR A LONG TIME, AND THEY'RE RIGHT BY MY SIDE."

Neil Diamond in *Billboard*, November 10, 2012

The *Electronic Musician* Poll

HOW DO YOU FEEL ABOUT MIXING ON HEADPHONES?

- I NEVER MIX ON HEADPHONES 15%
- I MIX PRIMARILY ON HEADPHONES 16%
- I USE THEM AS A REALITY CHECK 29%
- I'M ABOUT 50/50 HEADPHONES/SPEAKERS 29%
- I HAVE TO MIX ON HEADPHONES (NOISE ISSUES) 11%

DIG MY RIG

My name is Terrany Johnson, also known as Tee-Double; I've recorded and released more than 19 independent albums on my own label, Kinetic Global.

I mostly produce hip-hop and urban music, with some licensing work, but my studio is designed with the hip-hop producer in mind. I converted my upstairs into my studio and lounge area for writers to get a break and collect their musical thoughts.

My studio (Kinetic Global Studios) is based around the MPC 2000XL as my main drum machine and the MIDI brain of the studio, as everything runs through it. I have numerous keyboards and modules from Moog, Crumar Roady, Nord, and Sequential to capture and create any sound or idea I might have that needs to be added into a track to give it that extra shine.

Being a vocalist, my mic collection is maybe bigger than most emcees (15 models), but each one has its own tone and character, depending on the track. My go-to mics are the Neumann TLM 103 & 102.

Having my own place to create saves money and gives me a relaxed environment to work on an idea without worrying about the clock.

TERRANY JOHNSON
KINETIC GLOBAL STUDIOS
AUSTIN, TX

ask!

I LIVE IN AN APARTMENT, SO I MIX ON HEADPHONES. I KEEP READING THAT'S A REALLY BAD IDEA, AND NO PROFESSIONAL WOULD EVER CONSIDER MIXING ON HEADPHONES. BUT I'VE ALSO SEEN COMMENTS FROM PEOPLE WHO DO MIX WITH HEADPHONES AND HAVE BEEN SATISFIED WITH THE RESULTS. SO WHICH IS IT?

KIM "BEE" SHARPE
LAS VEGAS, NV
VIA EMAIL

If you're mixing at levels that would bother the neighbors, reconsider how you mix. Many top engineers mix at relatively low levels not just to avoid ear fatigue, but because they feel that if a track sounds great at low levels, it will sound *fantastic* when you pump up the volume.

There is no law that says you have to choose between speakers and headphones. It's common practice to switch among speakers—for example, comparing one really good pair with something more lo-fi to emulate how music would sound on consumer gear. With more people listening to music on earbuds and headphones, it's important to do at least a reality check with headphones.

Mixing with headphones has pros and cons. You'll hear more detail, but there's an exaggerated stereo field, effects like reverb will sound more prominent, and if you turn up the levels, you'll have a harder time judging balance. And while a given amount of money will likely buy higher-quality headphones than speakers, headphones—especially the "over ear" kind—can be bass-shy.

Whatever you use, remember that the goal is to create a mix that will sound good over *everything*. If your mix sounds wonderful over speakers at lower and higher levels, but also sounds great over earbuds and a couple different sets of headphones, you're pretty much set.

THE EDITORS

Audio-Technica's ATH-M50 headphones (available with straight or coiled cable) are a popular, budget-friendly option for many musicians who mix over headphones.

>>> Got a question about recording, gigging, or technology? Ask us! Send it to ElectronicMusician@musicplayer.com.

Book Excerpt

You Better Ask Somebody!

Staying on Top of Your Career in the Friggin' Music Business

BY BOB BALDWIN

As a longtime recording artist, producer and composer, Bob Baldwin has learned some important lessons about thriving in the music business. In his new book, *You Better Ask Somebody!* ($10, amazon.com), Baldwin gives other musicians the benefit of his 20 years' experience, offering practical tips on working with managers and agents, securing publishing rights and royalties, navigating tour production and more. Here are a few sample tips from Chapter 2, "Management/Artist Contract 101."

Trial Period "When you start a new job, what happens? You are hired; then you go through a 'trial period.' Ninety days is the normal period for everyone to get acclimated to one another. Well, the same should apply to a new business relationship between you and a manager. Try a trial six-month period to see how the relationship unfolds and list your *reasonable* goals. If you find that he or she has misrepresented you on more than a few occasions, you may want to think about dissolving the agreement immediately; send a letter, and move on. A clause such as, 'Manager agrees to uphold the name and likeness of artist in the highest of business integrity' can set the record straight upfront and make sure you are not being misrepresented while you are hard at work doing other things."

Pay Your Manager, Not Vice Versa "You are the artist and the employer and are responsible for your taxes at the end of the road, so keep your paperwork decent and in order. Read all contracts thoroughly and, also, have all deposits sent directly to you. When you pay over $600 to anyone, including your manager, during a calendar year, get a signed W-9 from that individual, preferably before you pay him/her. Pay your manager quickly and without delay so there's a trust developed there as well."

Get All of Your Contracts, and Read Them "If you are doing business with a manager who does not want to reveal his contracts, then you may want to reveal to him Donald Trump's favorite *The Apprentice* line: 'Mr. Manager, you're fired!' This is your business that you are generating. If you don't generate the revenue by doing what you do (perform, record, produce, etc.), then a manager ultimately would have nothing to manage; therefore, all contracts should be reviewed by you."

Gadget Geek

New from the "why didn't anyone think of this before?" department: Genelec's Acoustitape is a tape measure that marks feet/inches and metric measurements on one side and wavelengths from 10kHz to 115Hz on the other (including quarter wavelengths, which represent the predicted cancellation dip when a speaker is placed at a specified distance from the front wall in a studio). Besides its use for studio analytics, it's perfect for discussions about acoustics with students. Available for €10 (about $13) at genelec.com.

Correction

In our November controller roundup ("Control Freaks, Unite"), an incorrect URL was listed for the Synesthesia Mandala mk 2.9 drum controller. The correct URL is Synesthesiacorp.com.

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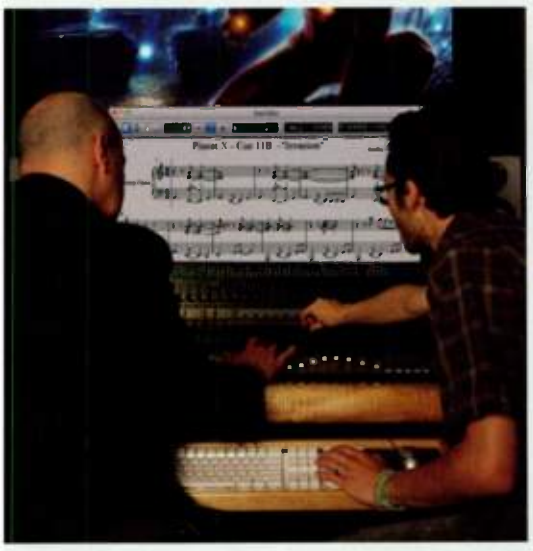

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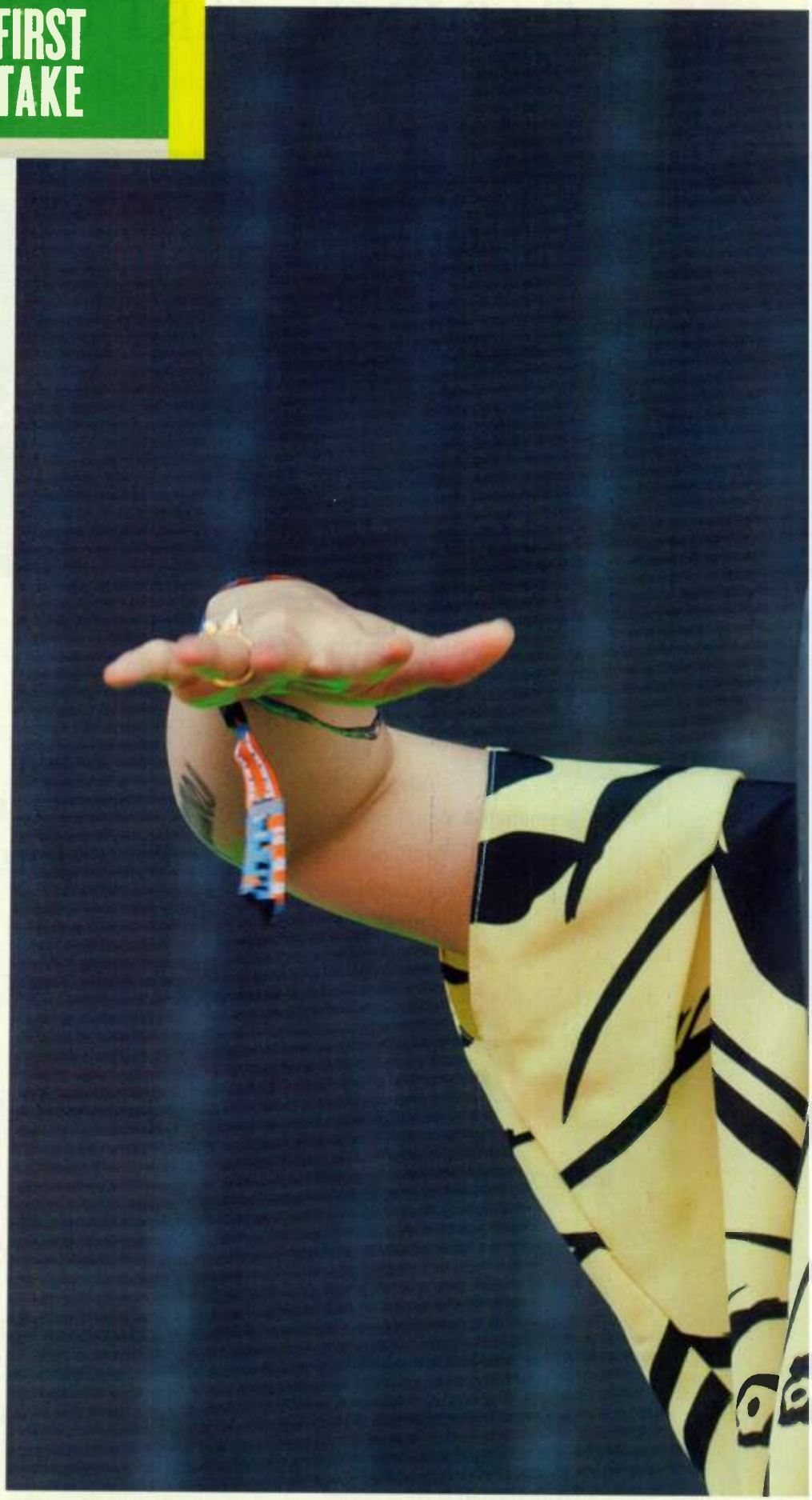
LITTLE DRAGON ON FIRE AT LOLLAPALOOZA

CHICAGO, IL
AUGUST 5, 2012

It's been a long road for Little Dragon. Last summer, the Gothenburg, Sweden, electro-soul quartet charmed the crowd from Perry's Stage at Chicago's Grant Park. But back in 1997, they were just a bunch of high school students, making music together in the afternoons. Their career simmered for a decade, until their underground hit single "Twice" was featured on *Greys Anatomy* in 2007 and captured mainstream attention, which ultimately led to collaborations with the likes of Gorillaz, Big Boi, Raphael Saadiq, and TV On the Radio's Dave Sitek. The band is grateful for their accolades, as frontwoman Yukimi Nagano recently told *Spin*. "It's amazing to know that a lot of creative people believe in what we do."



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"I'm on a CD with Amy Winehouse Because I Joined TAXI."

Anj Granieri – TAXI Member
www.anjmusiconline.com

My name is Anj and I'm 26 years old. Thanks to TAXI, I've recently signed a 5-year contract to compose for a publisher that supplies music for the #1 highest-rated daytime talk show in American television history.

Myth: Living in N.Y. or L.A. is a Must

I moved to NYC when I was 23 to "make it big" in the music business. I ended up living in a shoebox-sized apartment with broken windows and cockroaches all over the place. Not *quite* as glamorous as the movies make it out to be. I was frustrated and deflated.

That's when a friend told me about TAXI. She said it would provide me with the ability to make valuable connections that would advance my career. I was so intrigued that I called and signed up that day.

Myth: Cold Calls Work

Imagine that you're a busy music executive. Are you going to listen to the song a trusted source sent, or one from the pile of unsolicited stuff from people you don't know?

I used to spend countless hours trying to make connections, let alone the *right* connections! With TAXI, when my music is on-target and great, it's placed in the hands of people who need exactly what I have to offer. The results have been nothing short of amazing.

My music has been sent to more than 15 major record labels by TAXI, and my single, *Former Stranger* was released on a Universal Records compilation with Amy Winehouse and Duffy in Europe and Asia. It's also been placed in a prominent publishing catalog that features music on the CW network. All because I joined TAXI.

Myth: All Music Executives Are Cutthroat

My biggest success yet came from TAXI's annual free, members-only convention, the Road Rally. I met the decision-maker from a prominent publishing company that provides music for the #1 highest rated, day-time talk show on the air. I performed for him at TAXI's open-mic and he signed me on the spot.

The Road Rally is loaded with insightful seminars and the nicest executives you could ever meet. It's the *only* convention I've ever been to with a true "family feel."

Reality: Dreams Can Come True!

There are two types of people in the world: those who *dream* of what could be, and those who make what *could* be into their *reality*! So which are you? Call TAXI and do something with your music!

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DEADMAU5

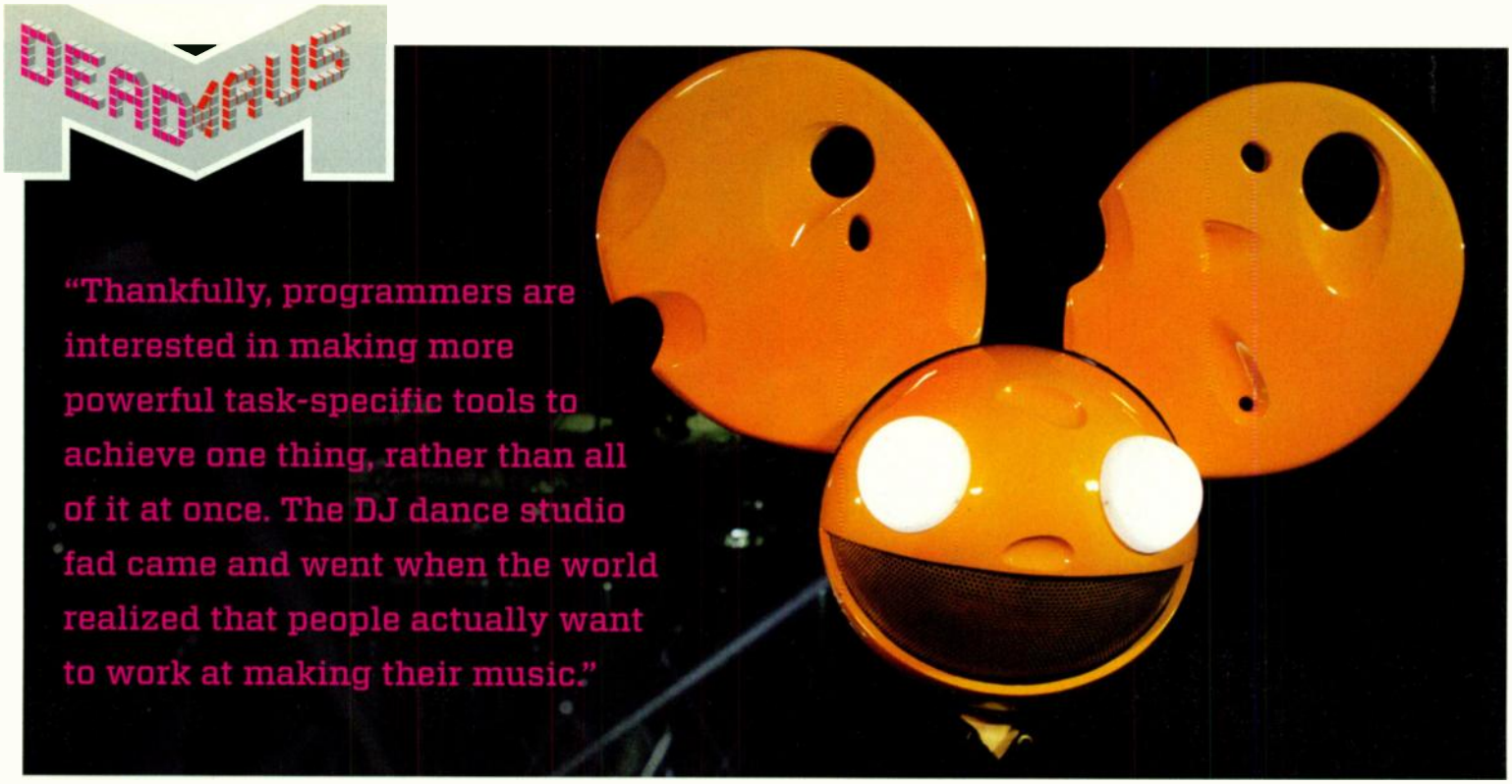
The gear head under the mouse head shares candid views on DJ production, sonic transparency, and staying true to his creative vision, even if it doesn't win him popularity points.

BY TONY WARE

JOEL ZIMMERMAN spends the better part of his year with a huge smile plastered across his face. Performing as his alter ego Deadmau5, Zimmerman commands arenas with his meticulously produced waves of progressive, electro, and tech house while wearing a bobbing, LED-encrusted 3D helmet that grins maniacally at the EDM crowds. It's a playful image, but underneath that mau5head is a serious gear head, and not always a sunny one. Whether on Tumblr, Twitter, YouTube, or in conversation, Zimmerman proves himself to be bracingly honest, somewhat cagey, as willing to infuriate as educate, but openly enthusiastic about the importance of experimentation and working with an appreciation for efficiency and sonic transparency.

Despite being a guy who plays uplifting music for the masses, Zimmerman is not afraid to stand behind an unpopular point, especially one that reinforces his refusal to be just another follower. Over the past five years, Zimmerman has released a steady stream of material, including 2012's *>album title goes here<*, which compiles new productions with reworked singles. The year 2012, however, might be most memorable among Deadmau5 followers for the attention Zimmerman garnered from publishing a confession about/critique of live electronic performance under the title "We All Push Play." What got lost in all the static about whether Ableton Live or an arms-in-the-air headliner does all the work at concerts, however, was the point that there wouldn't even be something to play back if an enormous effort wasn't being put in to the studio, where Zimmerman would say the best advice is don't follow any advice too closely.

PHOTO BY DAVE VANN



Though prickly at times, the man behind the mask is genuinely passionate about being gear obsessed yet refuses to be a slave to any one means of, or platform for, production. Championing a tactile approach that places dynamic response at the forefront, Zimmerman directs his scorn proactively at those (this interviewer included) whom he thinks just don't get how to just get to it.

So you're in Los Angeles right now; how's that treating you?
It's sunny and warm, not like Canada. Can't complain.

Looking back at your upbringing in the Niagara Falls, Ontario, region, what part did that play in your music?
Well, where I grew up, there were no electronic musicians, really. There was no one else leading the pack in that department, so it was a really cool place to start out.

So, where did you find your first exposure to electronic composition? I understand you were in the Scream Tracker scene [home to users of an integrated multitrack step sequencer and sampler popular among DOS users in the early 1990s].
Yeah, my exposure kind of began on the Internet, joining various communities, hearing what all these chiptune dudes in like Norway were doing, and I got plugged into that for a little while, making mod[ule] files. But I got a little more localized when I hooked up with the dance music radio station and worked in a record shop. That's where I got exposed to more produced stuff as opposed to the hobbyist stuff.

What would you say were the first codified genres that caught your interest?
Well, there weren't really that many genres; it was just straight-up house. The Porn Kings and Armand Van Helden were killing it. There was "Bombscare" and all that kind of stuff, but it was all in the house vein, at least in my world. There was no techno, no minimal, no f**king progressive-neo-dubstep-tech.

Was there ever one defining recording that caught your ear and inspired your direction?
Um, f**k, I don't know, sh*t, [Ritchie Hawtin's] *Decks, EFX & 909*, I guess. Dude, I f**king hate this sh*t, this interview f**king sucks. I'm sorry, but "how do you feel," "what's your opinion"—this doesn't help anyone; this isn't informative. Who gives a f**k if I listen to black metal or f**king country music?

Okay, let's turn the conversation to building a better mousetrap, then. What was the first recording gear you picked up?
The first thing I bought was a Roland MC-303 [Groovebox] because Roland decided to make some really cheap sh*t, which was good for kids who don't even have a job. That was fun, and I really got into that; I remember being in high school and I would just be reading that gear manual during geography or whatever. That got my head around oscillators, filters, your meat-and-potatoes-of-dance-music kind of stuff.

How did you first attempt to both use and abuse that box?
You always found these little tricks, like how you could run it into a computer and record .wav files of just the samples of the thing and mess with them, or you'd buy a cheapo distortion pedal and record samples running it through that. I was still very tracker oriented, so I would go and make drum sounds and then affect them with the DSP processors in the computer and throw those into a tracking program. And then suddenly my mod files sounded a little more up to date, as opposed to using all these old crazy samples that everyone was using. It was more interesting to make my own thing for a change.

What was your first computer?
It was an Atari ST running C-Lab Notator, and I had the dongle on it so I could send MIDI to the 303 or an old [Roland] Juno-60 that I had, and that was interesting because it was getting me out of tracker world and into MIDI. But I did end up upgrading to an Intel 80486DX2 with some SRAM in it, and I think I had a very early version of Cubase in it. The old way of doing things was to MIDI out all this stuff and then record what it was, and that's the end of it. But then VSTs came out and I really tried to stay ahead on that curve. That opened a lot more creative possibilities.

What's your current workstation?
I've been working with a company in Texas called BOXX Technologies that's been specially tailoring PCs for me. They've built some of the most reliable performance PCs I've seen. I used

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to build them myself, but I've been supplied with machines by BOXX for the past six years now and they're amazing. And it's funny, because I went into Hans Zimmer's studio the other day and he's got racks of PCs from the same company for his sample libraries. So I feel even more like I did the right thing.

What's your current ratio of hardware to software in a production?
Probably about 70/20 on the hardware side, a lot of that being my mastering stuff. My compressors and limiters are all outboard, just because I like the way the physical ones behave. And I have all these modular synths; I'm loving this gnarly-ass Modcan [a collection of rack modules for complex, evolving monophonic voices and external signal processing] I commissioned [Modcan founder Bruce Duncan] to do, and that was a f**king eight-month build. But it was all worth it; there are lots of oscillators and options, just a big happy-accident machine, really.

I've seen pictures; it's an impressive stack. Cherry-pick some of your favorite components.
Definitely the analog delays are great, and the frequency shift is all analog, too. Frequency shifts are a real horror to program, and even then, to have it sound really great you have to invoke some oversampling algorithms on rendering and stuff like that. There are things like that that you just can't get a computer to even get close to doing, at least in near real time. And I've seen a lot of great filter VSTs try, but when you can get an analog filter like this, why try and replicate it? And even if the filter does sound better as a VST versus an analog one, it's good to stay away from drawing those automation envelopes, those perfectly linear timed sweeps and things like that. When you're doing it by hand, you're adding a kind of subliminal nuance.

Do you compensate for or incorporate subtle analog grit?
There's always going to be noise, and when it comes to modular synths, there's no going back to do another take of something just the way it was before, so I'll just patch in some ideas for drums or big, nasty bass or whatever and work with what's recorded. It's not the end of the world if there's dirt in a filter or you're driving it just a little too hard . . . distortion and clipping are two different things, you know; computers are prone to clipping, but analog just puts in distortion.


Zimmerman's studio in progress.

Tell me other ways you work with what we'll call "positive distortion." Do you add frequencies that will intentionally unsettle or refocus the attention of a mix?
I think I've been producing my music a lot differently than some of my peers. I tend to do the mastering process almost about halfway through the production of a track. I want to work on it as I hear it, while other guys just work away on these melodies and arrangements and all that, and after they are all done they have to go back and mix and master their tracks. With my workflow, I'll know whether to keep something at a reasonable level or if the compression is just not right. I really like to avoid printing audio whenever possible just in case I want to go back and change something, or come off a compressor a little less or something.

Do you approach compression more as subtle adjustments rather than an overt effect?
A lot of people are busing everything to one spot and then just sidechaining the hell out of the thing, and then when the kick comes in, everything disappears. But the problem you're going to run into is, when you mute the kick, the whole dynamic of the song is going to change. A lot of people tend to overdo that, and what they do instead is they mute the kick but still send the kick signal into the rest of the stuff. So you're not hearing the kick, but you are hearing the sidechain result and it's god-f**king awful, but it's the only way you're going to escape not changing the dynamic of the track throughout. In terms of compression, I so rarely go over 1:4 just for that reason. I want it to sound just as good with no sidechain.

A lot of people do what they do for volume reasons, but the thing is, dude, if you really want your track to be loud, turn the f**king volume up, don't limit the sh*t out of everything. As soon as you start taking away that one element that's sidechaining it or limiting it, your track is going to blow out all to hell and you'll be wondering, why is it so much louder than this other part when I wasn't limiting it? So it's good to A/B when you're sidechaining or doing any of those other f**king A-to-Z house music moves where you can just totally ruin a track. I tend to keep it very subtle and then gradually ramp it to a point where I can hear the difference as to whether all of these buses combine or not, and then I'll just start knocking back levels as opposed to sidechain amounts or ratios on each of the buses. At the end of the day, they are all running into my master chain, which is going to be probably a Neve EQ and a Weiss DS1 [compressor/limiter/de-esser] as the last thing anything sees for maximization.

Do you lean toward that choice to apply coloration or control?
The thing with the Weiss is, it is so f**king transparent that you're getting the loudness but you are keeping the dynamics. Another thing, too, is poor Waves designed this L1 [Ultramaximizer] for a reason, and a lot of people are just taking the threshold of that and bringing it half down to -30dB and just sausaging out their tracks. So, great, sounds really loud good for you, buddy, but here's the problem: When that gets played in a nightclub, the amps are going to limit that again. And if you play something with more dynamic range, the amps are going to have more headroom to go up louder, so I'm very happy it sounds great on your f**king monitors, but it's going to sound like ass in a club.

It's one thing to lift up a tuned noise floor in between compressor hits and make a deliberate rhythmic effect, but you feel that a lot of producers don't see a difference between super tight and plain constricted mixing?
I'm not a f**king crusader . . . if you think something sounds great, then great, use that. But it's just such a shame because you have to realize that when you're producing electronic music that's going to be played in environments that have copious amounts of amplification, you have to think outside the monitors in your house, you have to think about the nightclub system or the arena system. Imagine setting your L1, and then what you should do is copy that L1 and paste that again after it and see how terrible it sounds, because that's what the amps are going to do to it. Maybe I'm the only guy who is sitting out in the crowd thinking, 'Man, this is just so limited,' but it's just a constant noise, a car horn in your f**king ear where you want to hear music. Yeah, when it was loud for that one second, it had that punch, but when it lulled out, the volume still stayed . . . Thinking about this is something that is just blatantly thrown out the window in electronic music just because of some guy's f**king dumbsh*t pro tip in *Keyboard* magazine or wherever the f**k.

Well, we did collect reader questions, and a lot of them did request some pro tips from you, like finding out what your technique for tightening a particular kick might be, or whether you tune your kicks to the song's key, etc.
Oh f**k, yeah . . . I don't do it all the time, but you should always make note of the fundamental frequency in a kick drum . . . and that can be found by using any free spectral imaging plug-in or EQ that's going to show the peaks and all that stuff. It's not hard to find, it's the swell in the middle of the EQ that's peaking the highest. So what I do like to do with kicks is just use a sine wave and tune that sine wave . . . go up a few octaves if your monitors suck, and then bring it back down because you don't have to necessarily hear it when you can see it. And then obviously you're going to do a little bit of envelope shaping on that sine wave, but that's not the kick, that's basically an 808 with no attack on it, no punch.

For that punch, you can go through all these millions of sample libraries and start to find the top and mid of that kick, to add the transient, the punch of it. The way that I do it is, I split three tracks for a kick sound, sometimes even four or five, and I'll start layering the sounds but splitting them up in frequencies so you have your fundamental sine wave, a mid one, which might be some old '60s cut that might be only 1,000 samples long—a little, tiny thing—and then a couple more that are in and out of time. And as you move those and mess with the phase a bit, you can get it a little more slappy or not slappy, and then you've got that kick. So render that out.

It sounds like the rhythmic elements are what take you the most time to consolidate. Why produce and grid out all these one shots?
A lot of times, the more parts you can have, the better, because you can re-introduce or swing different parts without f**king up entire loops. It's got a lot to do with the placement and timing of that kick. Even though it's dance music and it's not f**king rocket science to place one on every quarter note, it doesn't hurt to nudge it backward a millisecond because that's going to trigger a key sooner and give a little bit of time for the plug-in to process after the transient or during the transient. Because if you do everything from zero onward, you're going to run into latency problems. And I'm talking changes in the microsecond range, not so much making a loop that's way off. You'd be surprised what you can do by making micro adjustments to the placement of a kick, especially when it's being used as a key for a compressor. If you bring it back just a little bit early, then you can hear a transient much better before the compressor just destroys it, squashes it down by 1:8 or 1:10.

So far, a lot of our conversation has centered on percussion; is that where you start a lot of your production?

"As long as I have a sound font of a piano, I could write melodies the rest of my life. Beethoven didn't have too hard of a f**king time, you know what I mean?"

Yeah, because I can usually tell where the track is going to go from there. Agreeing on a fundamental frequency for a bass drum is going to pretty much determine where the root is going to go, up a fifth, seventh, an octave, whatever. I tend to do that unless I've done this kind of kick that has so much going on for the fundamental frequency that you can go any way with it. I think of it as an elaborate click track, basically, in that I am going from there and start drawing in notes and melodies, pads and all this stuff, coming up with phrases . . . making 8, 16, 32 bars to keep on with that club-music formula.

Over time, have you found that your tools have fit the music or your music has fit the tools? Has any piece of gear or production technique resulted in a large body of work?
It's all experimentation. I just go out and get the thing I don't have and play around with it and see if I can shape some kind of sound out of it. Melody is never a problem; as long as I have a sound font of a piano, I could write melodies the rest of my life. Beethoven didn't have too hard of a f**king time, you know what I mean?

I saw on your Twitter feed that you just upgraded your monitors to the PMC IB2S.

Those are actually really great, f**king amazing for the price. I'm in a weird room right now, and I'm doing some modifications to it and putting paneling up, though with this room I'm been pretty damn lucky because the bass goes right through it and doesn't bounce back and cause bullsh*t pockets. But I'm still having a little bit of trouble with the mids and the highs because of a rounded ceiling above me. The PMC speakers are really tight, and I can hear like 40Hz at really low volume, which is really important because I don't like really piercing-loud sh*t. I like clarity and transparency and comfortable listening levels; I don't want to walk away from the studio at my ears ringing. But it's true what they say: The speakers are only as good as the room they are in. The room is 70 percent of the sound when it comes to engineering, so I'm retrofitting this guest room in this house to disperse some reflections.

Is there a magic piece of gear or plug-in in this new studio that can glue a track together more effectively?
Oh yeah, maketrack.exe is that app—you know, the one where you just push the button and all the music comes out . . . I bet you we're not far off from that, but thankfully, the spirit of producing prevails and most programmers are less interested in doing something like that than making more powerful task-specific tools to achieve one thing rather than all of it at once. The DJ dance studio fad came and went when the world realized that people actually want to work at making their music.

I'm going to throw out a hypothetical situation: Your studio is on fire, you've collected the cats, is there a single piece of gear you'd grab to start your studio over?
It's got to be the box, it all starts with the BOXX now, but if I lose it, I lose it. If you fear that losing the equipment would cost you your creativity, you weren't that talented to begin with and you should start considering a second career. So, if you feel that you'll never write anything amazing ever again, you'd better have a lot of backup drives.

Looking back, your past year has been a busy one for productions, touring, and sparking discussions throughout dance music forums. Is there anything you would do differently, going forward?
I'm less concerned with the ongoing question of what's going to happen and how to change

"If you fear that losing the equipment would cost you your creativity, you weren't that talented to begin with and you should start considering a second career."

to benefit from that somehow. As long as you remain creative and keep moving forward with your own ideas, doing different things your own way as opposed to designing in a way that you know is going to be popular with everyone else, then you will always be not another sheep, you'll always be looked at as a starter rather than a guy who jumps on a thing. And that's really important to me, to challenge myself before sounding like everyone else.

Is there a particular direction you see yourself heading as a challenge in the near future?
Yeah, I'm heading toward Norwegian black metal run through a Sherman Filterbank and calling it a remix. But really, I am building a 52-foot mobile production studio that I'm taking on tour that will be more or less a replica of my room in Toronto, just inside a massive truck so we can do all kinds of cool sh*t with it. We're going to do live broadcasts from the road, inviting fans and friends and people in our little electronic world to come in and collaborate and do a thing in there called mau5hax [a Livestream session featuring Deadmau5 and others working with start-up producers and discussing production topics]. The new live show we're working on is so involved, we're looking at two-day stage build times, so we might as well just park a studio out there where I can work instead of just sitting around picking my nose in a f**king hotel room wishing I was at home making music.

And what's at the core of that workstation?
Ableton is working out, but I'm looking at Cubase these days just for better mix control in terms of the way their busing system works, their EQs, and the way their layout is a little more engineer-friendly. As an arrangement tool, Ableton f**king rocks, but as an engineering tool it sucks and Cubase rocks. But you can combine the two with a ReWire client, and I've found that to be very useful. I don't want to give away too much, but on stage there's a lot of f**king sh*t going on up there, in terms of both Mac and PC. The MIDI in Cubase has always been bang on, where you do global adjustments on timing, like moving a latency slider over a bit, whereas in Ableton, you start f**king with that plug-in delay compensation sh*t, you're entering into a world of f**king disappointment. Cubase has been a lot more reliable when it comes to timing-specific things.

If you could invent the perfect DAW, you'd be doing a lot of people and some companies a favor.
I don't think it will ever come to a solution that's perfect for everyone; everyone will always have some obscure, weighted thing. I've never seen a "live electronic music" setup that didn't have some weird f**king workaround or some weird ingenious way of combining different things. It's always been that way and it always be that way, or we'll all just end up using [High End Systems'] Road Hog [consoles] and Ableton, and show technology won't advance. Any developer that sees someone is using this-and-this for a task can come up with something new to deal with those chores specifically, but of course you're going to have a new problem, and then a new solution, and then another problem. ■

Tony Ware is a Northern Virginia-based writer, editor, and friend to felines. When he's not busy playing a game of cat and mouse with producers, he enjoys chasing down high-resolution audio, delicious coffee, and iOS synths.

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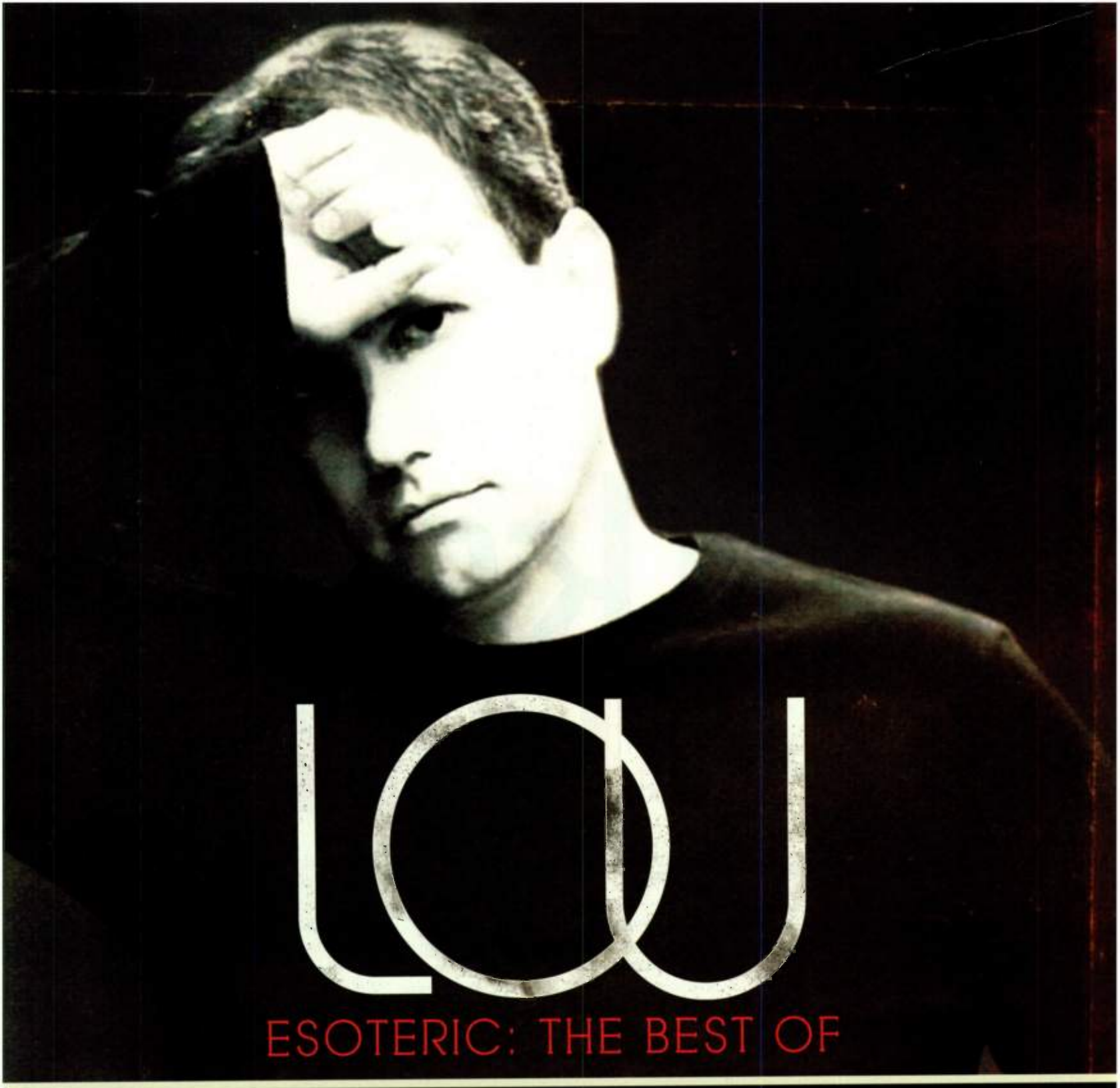

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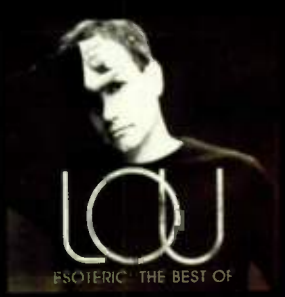

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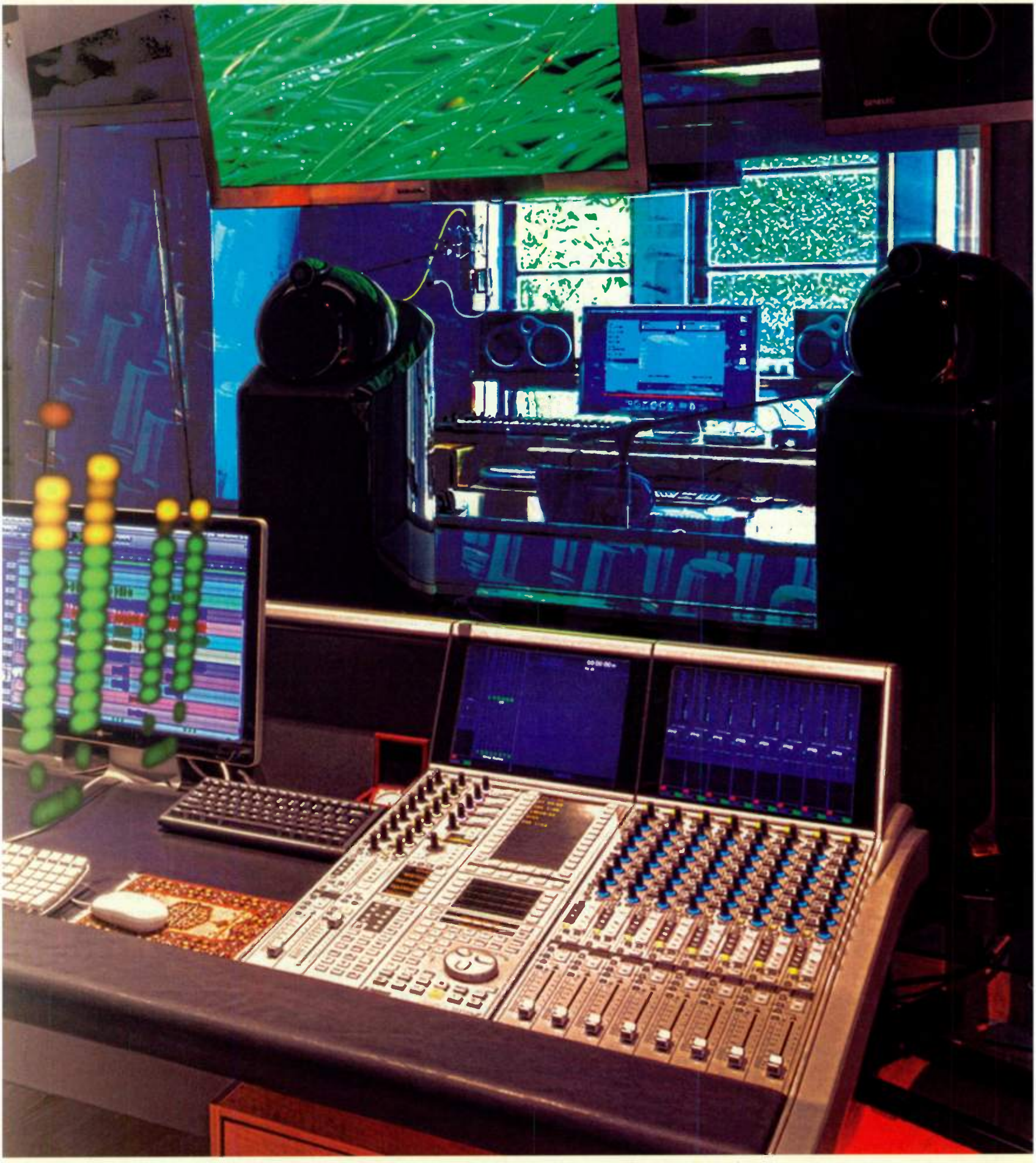
Want to turn your home-studio hobby into a successful producing career? Several pros reveal how to turn your dream into reality

make or break

IT'S A fantasy job. Maybe some of your friends have talked about doing it, and ten years later, they're still *talking* about it. But paying your bills as a professional music producer is an actual, attainable goal. *Electronic Musician* knows that because we feature real, bona-fide producers who live the life. Supa Dups (Bruno Mars, Rihanna, Mary J. Blige), Damian Taylor (Björk, The Killers, Arcade Fire), and Andrew (Mudrock) Murdock (Godsmack, Powerman 5000, Avenged Sevenfold) know it because they made it happen for themselves. They weren't born into über-rich families who subsidized their lifestyles while they "played" in the studio. They just worked on it, day in and day out.

To gather some insight on how aspiring producers can make the leap from hobbyist to professional while steadily build up their discography (and bank account), I picked the brains of Supa, Taylor, and Murdock—as well as Senior Vice President at Nettwerk Producer Management Alia Fahlborg and Senior Vice President of A&R at Warner Brothers Records Jeff Sosnow—to gain insight on how to get your business off the ground.

BY KYLEE SWENSON GORDON




Damian Taylor

Gotta Start Somewhere Jamaica-born Supa Dups (aka Dwayne Chin-Quee) started DJing at the age of 11. Two years later, he won a DJ competition, the reward for which was spinning on Miami's Power 96 radio station. As he continued to DJ, he discovered a passion for music production. Supa's aunt saw his potential and bought him an Akai MPC3000, but he didn't have the same immediate success he had with DJing.

"I went to a couple of influential people at the time, and they declined me," Supa says with a laugh. "They were like, 'You need to stick with your day job and leave music alone.' That was a huge reality check for me. But I had this drum machine, and I developed a style of remixing that made me very popular amongst the reggae community, and after that, it exploded all over the world."

Along with five other friends from Jamaica (who are also of black and Chinese descent), Supa founded the Miami collective Black Chiney. The group churned out dancehall/hip-hop remixes and released mixtapes. One of Supa's beats from Black Chiney's *Volume 7* caught the ear of his future manager, Mr. Morgan, and led Supa to his first big break, Nina Sky's "Turnin' Me On."

"I met him in Jamaica when I was down there for a gig," he says. "I gave him a CD, and he was working on the Nina Sky project at the time with Cipha Sounds. They heard the track and were like, 'Yo, this track is crazy.' So that was my first paying production gig. It's not like I even went out and was seeking work from it. I was just making this beat to put on the CD because I could."

Meanwhile, as a teenager, Taylor got his foot in the studio door by doing odd jobs and janitorial work. "I was really lucky that there was an engineer who would let me sit in a corner on his sessions as long as I didn't touch anything," he says. "Even if you've got all these talents, people aren't going to know it until you have the opportunity to show it. The downside of working in a major studio is that you'll basically have to sit in the corner and shut up for quite a long time, but it's a great way to learn things."

While doing Pro Tools editing at a small studio in London—"a kind of advertising-in-the-back-of-a-magazine place where local bands would pay 25 pounds an hour," Taylor says—was introduced to producer Guy Sigsworth. They hit it off, and for the next couple of years, Taylor assisted Sigsworth and worked on Björk's amazing fourth album, *Vespertine*.

In between engineering jobs, he produced smaller bands. But it wasn't his studio work with Björk that got his phone ringing. "It's funny because more people have asked me to produce their records off the back of me playing with Björk live than from my time in the studio before," Taylor says. "It was about me being at festivals and meeting lots of bands, because if you're stuck in a studio slaving away all the time, you don't meet many other artists."

Murdock also ignited his production career was by meeting bands at shows, where he was working as a live sound engineer in Boston. Bands loved how he made them sound live and asked him to produce. One band he recorded was signed to Warner/Chappell Music (now Warner/Chappell) and acquired $10,000 from the publishing company to build a demo studio. When the band broke up, Murdock and the rhythm section kept the equipment and turned the rehearsal space into a studio.

In the beginning, he charged "broke bands with day jobs" $15 an hour. "They'd scrape together $400 and would want to record all 17 songs that they knew," Murdock says. "As it went along, I started inviting in bands that I liked to record and told them, 'Look, I'll do two songs with you. It's free, you own the songs when I'm done, but I'm driving.' So I was able to barter with them the recording time for the ability for me to use them as a guinea pig."

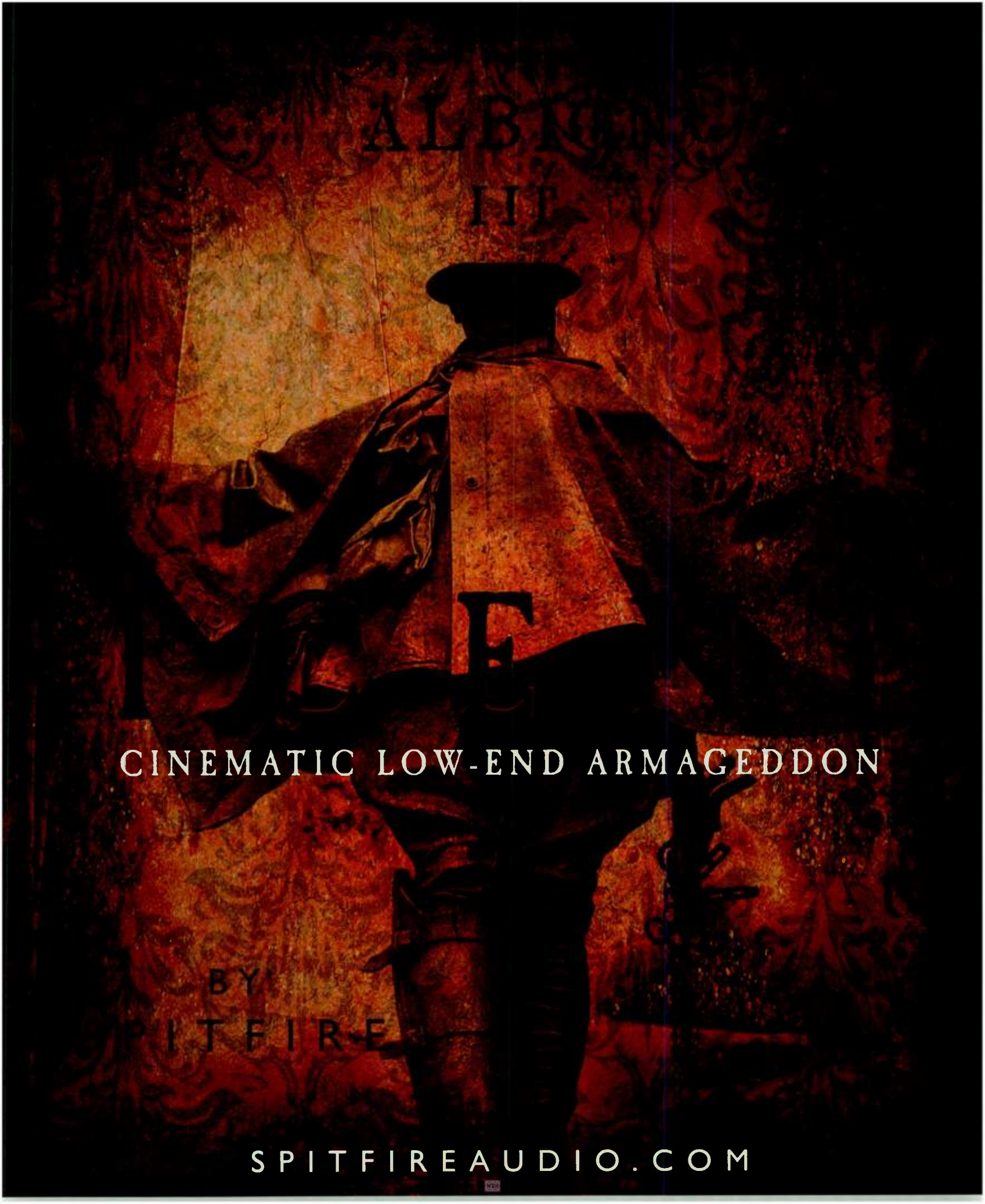
Murdock's first big paycheck was Godsmack. Singer Sully Erna was the drummer in a metal band Murdock had recorded. When Erna started Godsmack, he came to Murdock with $3,000 to make a record. "I was planning on recording and mixing that record in a week, and it became obvious that we weren't going to finish it in a week," Murdock says. "I gave him the mixing for free because it was sounding good, it was something I thought I could play other metal bands that wanted to record at my studio, and that's as far as I thought about it. A year later, he sold it to Universal, put a contract in place for me, and that contract bought me a house."

Getting the Gigs "I read something that said, 'Some people are lucky, but the harder you work, the more you'll *get* lucky,'" Supa says. Rather than hustling and pounding down the doors of music-industry execs, Supa spent extra time working. "I'm never up in their butt saying, 'Please work with me!' I just make my talent speak for itself."

Part of that talent involves a lot of multitasking. "The landscape is such that people can't afford to hire a producer and an engineer often, so you need to be able to wear a lot of hats," Murdock says. "Ninety percent of the producers out there are wearing at least two hats."

Years ago, Timbaland's engineer Jimmy Douglass offered some advice to Supa: "Do you want to be a better producer? Learn how to engineer," he said. So Supa learned how to mix his tracks and avoid things like phase cancelation and ensure that his beats sounded good on speakers. "When you learn how to structure beats so nothing is clashing, it makes you a better producer because when you play it for people, it sounds better, and they get the point more quickly," he says. "Plus, when you give it to the mix engineer, you give them a good point of reference to work with."

As for Taylor, he calls himself a producer, engineer, mixer, programmer, composer,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performer, editor, remixer, and software designer. Lots of hats. "I was asked to work with a lot of different people because I was quite versatile," he says. The more he put himself into different situations, the more he learned from the likes of Sigsworth, Spike Stent, and dozens of others in the studio.

But wearing multiple hats comes with a caveat. "You need to be aware of which hat is on your head at any given moment," Murdock says. "The engineer hat and the producer hat will knock heads with each other because the engineer is like, 'We're done! It sounds good.' The producer hat is telling you, 'Yeah, the song sounds fine, but they're not the right drum parts.' And the producer hat should *definitely* win. Don't consider it a waste of time if you're throwing an entire recording away and starting a song over. Consider it the road to something better because if your gut is telling you that it's not right, it's not right. The producer in you will know that immediately, but the engineer in you will fight it and want to keep it because you don't want to do it all over again.

Another potential pitfall about producing is the importance of protecting your brand name. "Know what you want to do, what you want your public perception to be, and accept projects that lend themselves to that because as a producer, your name is your brand, and you're pigeonholed really fast," Murdock says. "If you're somebody like Colin Richardson, who is an amazingly talented rock/metal producer, and you just want to be in that genre, then go for it. Be it and own it. But if you want to be somebody like a Rick Rubin, who has produced a huge variety of people, be aware of that. The parallel I like to make is Leonard Nimoy can only play Spock. As a young actor, he took that role, and it's become so iconic that he was stuck with that for his whole career. So it's a dance that actors play as they establish a name on the acting landscape. It's like, don't do two horror movies in a row, or you'll become the horror-movie actor."

Hiring A Manager? Murdock, Supa Dups, and Taylor all have managers, but they didn't start working with them until there was something to manage. "It is important as a producer manager that the client has something to run with," says Fahlborg, whose roster includes Bob Clearmountain, Jim Abbiss, and Tom Lord-Alge. "It doesn't always have to be a big hit, but there has to be something bubbling under to enable the manager to catch the interest of A&R people, artists, and artist managers—something to set the client apart from the many other producers and mixers out there."

For Murdock, that time came "when the business side got so complicated that it started interrupting the art," he says. "I found my first manager by cold-calling management companies and saying, 'I'm the guy who did Godsmack. I'm looking for a manager.' It was the week when Godsmack went Gold. That's when you should look for a manager, not before then. If you get some douchebag local person who just wants to play manager, that's a huge mistake."

"If your gut is telling you that it's not right, it's not right. The producer in you will know that immediately, but the engineer in you will fight it and want to keep it because you don't want to do it all over again." —Andrew Murdock

But trying to get in with a big firm can be a problem, too. "What can happen is people look at these huge producer-manager companies that have six million people on their roster and go, 'Oh, my favorite producer is on that one. I want to try to be on that roster,'" Taylor says. "If you're looking after a ton of established producers and engineers, there's not much motivation to build a career for someone who doesn't have one."

Taylor's working relationship with his current manager, Liz Hart, is symbiotic. She finds creative ways to help him with his career and negotiates great deals for him, and he fosters relationships to makes her job easier. For example, he once gave The Killers an open invitation to work with him, and four years later, they called upon him to help produce their latest album, *Battle Born*.

"Liz and I have a very collaborative relationship," Taylor says. "We do a lot of brainstorming together, and the last year has been super busy, so it's been more a case of trying to keep me afloat," Taylor says. "With a good manager, it can be a very creative relationship even though it's specifically about the business side of what you do. You're discussing strategy, the right people you want to be talking to, which projects you're interested in, and how one step can affect the next step."

Fahlborg has a similar relationship with her clients. "My most successful clients realize that the keys to the kingdom are in an active partnership where both the client and manager are working together to achieve their goals," she says. "Every client has a different comfort level in dealing with industry people, and it's important to work with those individual preferences but to always realize that relationships are extremely valuable in our business. I've seen clients put themselves out of business ignoring that reality, and I've seen others experience immense success by making it Rule No. 1—after making great music, that is."

Although Supa gets along with many people in the industry, he knows when to step aside and let his manager, Mr. Morgan, handle the dirty business. "If I don't want to do something," he says, "when I'm not telling people no directly but my manager is telling them no, they're not really mad at me. They're mad with manager even though I'm the one who's saying no. So it's a kind of good cop/bad cop situation."

Getting Along With A&R As part of her job, Fahlborg oversees her roster, negotiates producers' deals, and builds relationships with A&R and artist managers, attorneys, and publishers. Her team also tracks budgets, books musicians and studio time, arranges travel, takes care of invoicing, and tracks royalties. "A great deal of time is spent chasing, tracking and analyzing royalty statements and Sound Exchange payments," she says. "That is an extremely tedious process but does yield tens of thousands of dollars of otherwise lost income for some clients."

But while producer managers take on a lot to serve their clients, producers still need to

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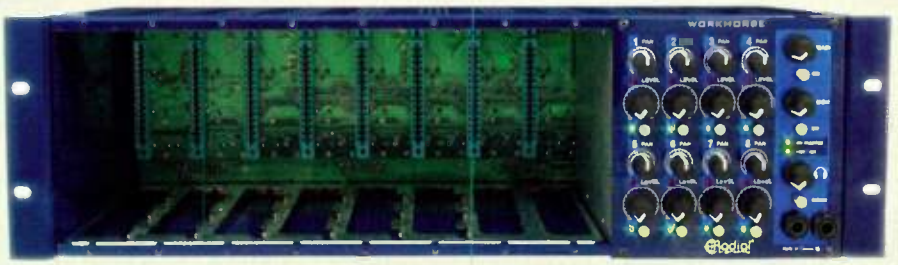

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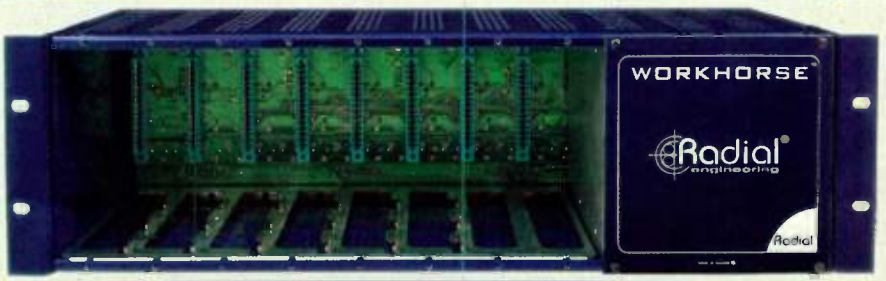

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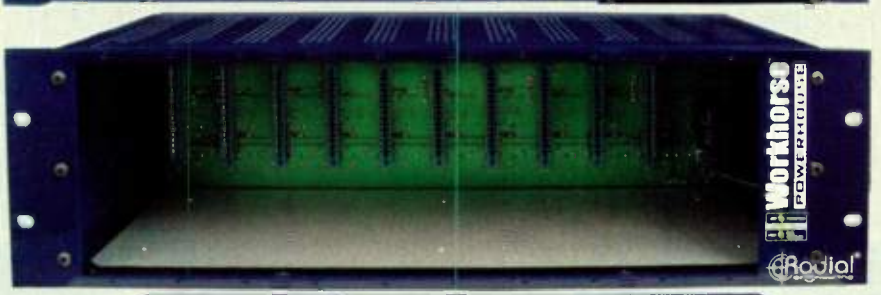

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interface directly with A&R managers, which isn't always easy. "They're the people who hold the purse strings, and they're important to the project," Murdock says. "But frankly, they often have ideas that are counterproductive. They have good ideas, too, but it's another relationship that needs to be massaged. And that's the huge part of being a producer: massaging relationships with singers, the rest of the band, the manager, and the A&R guy. There are a lot of political waters to be tread, and I'm not a very political person."

Supa plays the game diplomatically. "Not everybody is going to like you, and you're not going to like everybody because at the end of the day, some people really aren't good in the business," he says. "But you have to be cool with everybody: A&Rs, studio owners, interns.... Most importantly, you have to just remain humble, not hard-headed."

Taylor is glad to have the outside perspective of A&R managers in a project. "I really appreciate their fresh ears," he says. "They don't have to sit there telling you what kind of hi-hat sound to use, but they can give you a reaction outside of the people in the band, which can be really useful."

> "My outlook and advice are summed up in one word: adapt." —Alia Fahlborg

Sometimes, an A&R manager can pinpoint something that a producer or mixing engineer misses. "I remember one time when I was working with Eric Valentine on the All-American Rejects' third album, we had delivered a rough that Jimmy Iovine loved," Sosnow says. "But when we played the mix, there was a sort of molasses-like feel that slowed down the song "Gives You Hell" a hair. The groove wasn't the same. After a thorough process of elimination, Eric deduced it was a gear issue—turns out the tape machine wasn't working properly. It kept getting gummed up, and we had to pull up stakes and just mix in the box."

The Changing Landscape Just like producers' ideas need to be fresh to stay relevant, producers need to keep up with the evolving music business to survive. "With the changes in consumption of music and other factors forcing the consolidation of our business, there are fewer projects for everyone and there's less money with which to do them," Fahlborg says. "That creates stress, especially for veteran clients, and can easily make day-to-day life in the music business difficult. My outlook and advice are summed up in one word: adapt. We encourage our clients to stay positive and focused on the great music out there, while finding ways to be more efficient in record making."

Taylor created that efficiency—and avoids a ticking clock—by opening his own studio in Montreal called Golden Ratio. He found a good-sized place in a great part of town, which would have been difficult to achieve in London, where he worked for years. "It was very important to go to a big country to make the connections," Taylor says. "But where I am now, I can send multitracks around the world for pretty much every project. We can communicate with each other so easily. It's cool because it means that your lifestyle can change."

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One way Supa has adapted to changes in the industry is by using Soundcloud as a testing ground for his ideas. "In one day, I can let almost 15,000 people hear something that I put online, and then it spreads like a wild disease," he says. "Years ago, for a track to get any kind of play, you had to print a million CDs, or you had to give it out to the right A&R that believes in it and wait. Now, there is no waitin'."

But although producers can release music instantly, some aren't taking advantage of the technology. "I strongly suggest to anybody who's starting out to just start doing it," Murdock says. "So many people talk about it or go to school for it and don't really do it. It sounds like such a simple thing, but it's a big step to get over and just say, 'Okay, we're doing this project, and I'm driving.'"

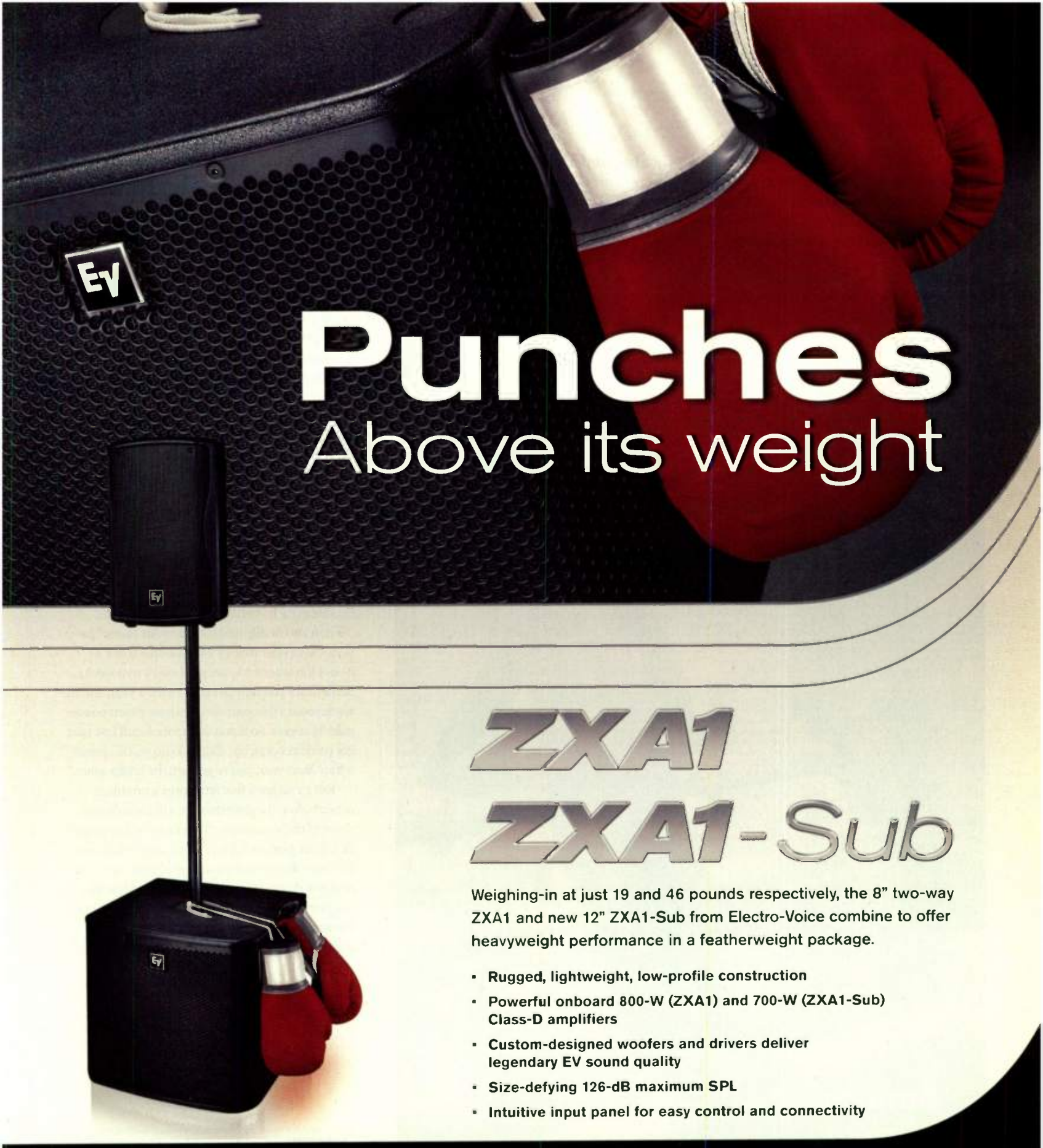
Although Murdock didn't go to music-production school, he teaches audio engineering at the LA Music Academy and believes it's the right path for those who need structure to succeed. "I feel like I'm giving the kids I teach something really useful," he says. "One of the biggest skills is to learn how to say something negative in a positive light. Learn how to criticize without ridicule because if you're going to produce somebody, the first thing you're going to concentrate on are the things that you think need to change. And it's really easy—I've been guilty of this myself—to pull somebody out of their comfort zone and put them in a place where they can't deliver anything to you."

Murdock believes that producers will get better performances out of artists if they feel comfortable and ready to take risks. "I made an amazing record with a band called the Riverboat Gamblers, and when they came to me, they were sure they were a punk band," he says. "They wanted everything to be, 'Punk! Punk rock! Punk! Punk Rock!' I just helped them realize that what a band is in reality and what a band thinks they are almost never agree with each other."

Clearing Hurdles In the '90s, Taylor worked with Martin Virgo from the London-based band Mono, who offered some career advice. "He said to me, 'The first stage [of your career] is that no one gives a sh*t who you are or what you're doing," Taylor says. "The next stage is when people notice, but that basically means you have to be taken advantage of for a few years until you're at the point when you can start to put your foot down.'"

Now that Taylor is calling more shots, the challenge is balancing work with his personal life. "My life is the studio, but I've got a beautiful young family, and it's a constant struggle just to try to be a good dad and husband and also love making records. I think if you're happy to lock yourself into a studio for the rest of your life, then you're going to love it, and if you don't, you'll know pretty soon and you should probably go do something else." [*Laughs.*]

Of all the many jobs Taylor's done in studio—from tuning vocals to tending to multitracks—it's always been labor of love. "All I can really say is just absolutely follow your bliss and what's most exciting to you," he says. "In my own case, it's been quite a long process to get here, but I've not



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been afraid to immerse myself in whatever the situation was at the time. But it keeps you busy and you meet people, and all those skills come in handy."

But while being busy is good, Murdock suggests listening to your gut before agreeing to take on a new project. "The biggest black eyes in my career have been projects that felt wrong from the beginning but I said yes to anyway," he laments. "Anybody in their early career is going to have embarrassing projects that they did because they needed money because everybody needs the work. But at a certain point, it's a delicate dance between accepting projects for the money and becoming Christopher Walken who appears in bad movies but who is actually a really good actor. My first barometer on whether I'm going to accept a project is, number one, do I like the music? And number two is, are these people douchebags?"


Alla Fahlborg

Once you move forward on a project, Murdock insists that trust is key. "I discovered that if the band doesn't trust you, nothing is going to happen," he says. "There needs to be some kind of give and take that establishes a trust. Otherwise, the entire project is going to feel like an awkward first date. Two things need to happen at the beginning: I need to present an idea that the band isn't sure of at first but likes later. And I also think I need an idea that I push hard for and then abandon because I realize that it's not working."

As for Supa, one of the biggest pitfalls to producing is forgetting about your finances. "When you finally make it, pay your taxes!" he says. "Save your money because this is not a 9-to-5 job where you get paid every two weeks. Sometimes you only get paid twice a year, and the work you do this year dictates how much you get paid next year. So if you did a lot of stuff last year, got paid this year, but didn't do no work... guess what? Next year, you're going to be broke again."

But there are a few attributes a producer needs before the government will care about a share of their earnings. "What's most important is determination and drive," Supa says. "Make sure you have the right attitude and remain humble. And always try to improve. Don't ever feel like you have arrived or that you are the 'ish.' Because the way I look at it, from the day you are born until the day you die, you are constantly learning." ■

Kylee Swenson Gordon is a writer, editor, and musician based in Oakland, CA. In addition to making music with her indie-pop band Loquat, she's a frequent collaborator with EDM producers.

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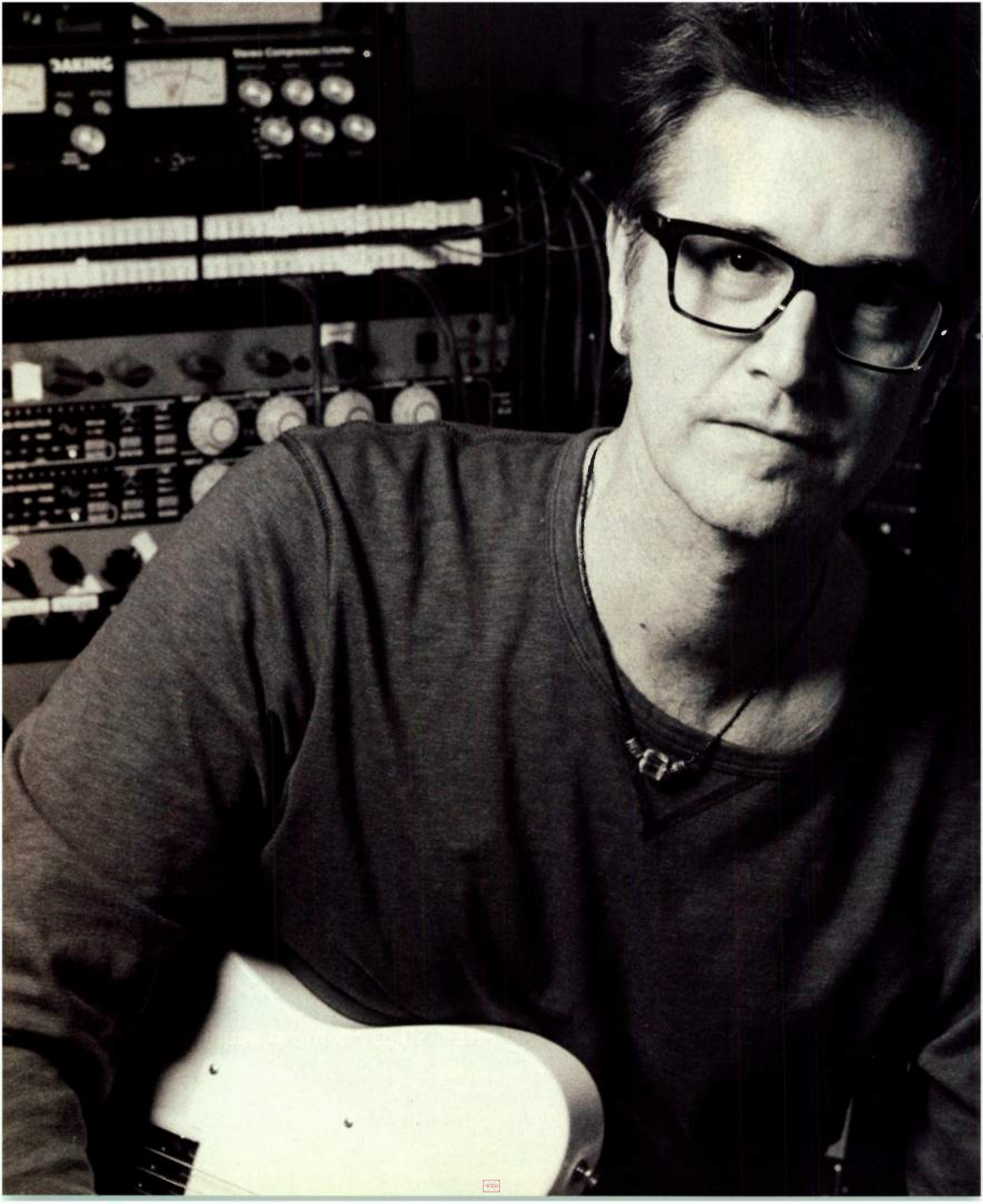

LISTEN

Dan Wilson

The former Semisonic frontman talks about collaborations with everyone from Adele to Benny Blanco to Nas, along with his own new studio project

BY BUD SCOPPA

SINCE REINVENTING himself as a songwriter for hire, former Semisonic singer/guitarist Dan Wilson has been on quite a roll. The launching mechanism for Wilson's second act was the Dixie Chicks' 2006 hit album *Taking the Long Way*, for which he collaborated on six songs, including the anthem of defiance "Not Ready to Make Nice." He hit his next home run by co-writing and co-producing Adele's chart-topping big ballad, "Someone Like You." In the two years since that memorable collaboration, Wilson has been all over the place, geographically and stylistically. The locales range from Nashville, where he partnered on Dierks Bentley's country chart-topper "Home," to Australia, where he and Missy Higgins came up with her single "Everyone's Waiting." In the most improbable of his collaborations, Wilson co-wrote and co-produced a track on Nas' *Life Is Good*, his first foray into hip-hop. Wilson's recent writing partners include Pink, LeAnn Rimes, Kim Perry of The Band Perry, Keith Urban, Michael Fitzpatrick of Fitz & The Tantrums, Josh Groban, writer/producer Benny Blanco, and Taylor Swift. Between co-writing sessions, Wilson has nearly completed a studio album of his own, the follow-up to his solo debut, 2007's *Free Life*. In the following conversation, the affable and articulate Harvard grad describes the process that led to some of his biggest songs and generously shares his co-writing and producing secrets.

Semisonic's "Closing Time" really put you on the map as a songwriter. What inspired that modern-day standard?
Semisonic had just come off the road from [1996 debut album] *Great Divide*, and the guys were clamoring for a new song to end our sets with. They were tired of playing "If I Run," which was my favorite song to end the set lists with. I don't mind repetition—I like to eat the same breakfast every morning—but I took it upon myself, almost like an internal commission for the band, to write a new closer for us, and thought of the title "Closing Time" in terms of this mission. About halfway through the writing of the song, I realized that I was writing this sort of pun about a baby being born, because my wife was pregnant at the time. So the song took on a double meaning for me, and I ended up making sure that every line was doubly interpretable. It was about being bounced from the womb, I guess. But I wrote the whole thing in a very short time—about 20 minutes. Only two things changed about it after I wrote it. One, I went to [Semisonic bassist] John Munson's house to do a demo of it, and while I was there I wrote a chord progression that could be an instrumental bridge. Then, when I sent the demo to our A&R guy at MCA, he suggested that the lyrics were too repetitious and the second verse needed some variety. So I did those lines that go, "Gather up your jackets/Move it to the exits/Hope you found a friend." That's the one variation in a pretty strict lyrical pattern.

When you get input like that from your A&R or publishing rep, you have to consider it carefully, right? You're in business with these people, so you can't be precious about it.
That makes some sense to me, although I must confess that it's difficult for me to make a change in a song because someone said it would be more "commercial" that way. My hunter instinct doesn't kick in when somebody says, "You could make more money if you did this." But that same kind of hunter/seeker instinct totally kicks in if somebody just says something as raw commentary or potential input for a song.

And following your artistic impulse has frequently led to commercial results for you.
I'm very fortunate in that, when I like something, there's a really good chance that other people will like it. And I can tell if I like it. With a lot of people, they know when they like something, but not if they *have* to know—not when it's their job to know if they like it. Once it becomes a job to know whether you like something, you become very confused.

Having worked in A&R, I know exactly what you mean.
Right. So, with me, if I really love something, it often turns out that everyone else loves it too. I have this tendency to discover music that comes to me through pop culture, and it's not gonna be like the tastemaker, cool-guy kind of thing—it's always the huge, smack-down-the-middle hit that everyone's really tired of within a few months.

Do you have an appreciation for the side of mainstream pop dominated by writer/producers like Dr. Luke, Max Martin, and Bennie Blanco?
I have that experience that all songwriters have where you hear something on the radio and you go, "Ooh, I wish I had written that." There's a Bennie Blanco/Shellback/Maroon 5 song "Payphone," and the first time I heard it, I immediately had that super-excited but envious kind of feeling. So I definitely enjoy really poppy stuff, but I'm more interested in great songs than I am in slammin' tracks. With a lot of songs that are hits right now, you almost feel like they're hits because of the *mechanics* of the production. They hit you with a really hard, beautifully constructed kick drum, and then they hit you with an even harder, more beautifully constructed kick drum for the chorus, and they also hit you with even more blaring guitars or synthesizers. It's like the difference between getting a nice backrub from someone you love as opposed to a professional masseuse. You're definitely gonna get your bones cracked in all the right ways by the pro, but there's not a lot of feeling in it.

So much of the current pop stuff rigidly hews to a particular structural and dynamic formula. You have to shoehorn content into that approach, rather than the ideas dictating the approach.
It just feels very functional. I read a couple of very different books at the same time that coincidentally pointed me in the same direction; one was *Animals Make Us Human* by Temple Grandin, which is about the shared emotional lives of people and animals; and the other was Thomas Mann's *Dr. Faustus*, in which a young composer sells his soul to the devil to become the greatest composer alive. *Animals Make Us Human* said that the experience of following your curiosity is the most powerful neurological circuitry in the animal brain, and it's the same in human brains too. The book describes that feeling of being about to open a present after coming downstairs on Christmas morning as being the queen bee of all the emotions. And one of the characters in the Thomas Mann book says to the other, "Love is strongest emotion of all," and the second character says to the first, "No, there's one stronger—*interest*." To me, that's the flag I try to wave to myself. If I'm writing something and I'm really, really interested, and I don't know where it's going, it's almost like I'm just about to open a present on Christmas morning. That's the feeling I want to have about writing a song. I don't want to be satisfying a checklist of criteria and second-guessing whether I could make someone else excited; I have to have my own curiosity totally engaged.

You've produced a number of the commercially successful songs that you co-wrote with the artist, including Adele's "Someone Like You." Do you walk into the room with that intention? How do you become the producer as well as the co-writer?
We were halfway or two-thirds of the way into the song on the first day, and she laid down some amazing stuff. So we had a recording of most of the song, but there were big gaps missing. On the second day, we wrote the bridge and finished the second verse, and it was interesting—she had a different sound to her voice. It was more cracking and distorted-sounding; it sounded more hurt and weary—it had this extra element of blues and sadness. So I asked her to go back and re-record the choruses of the song, even though we had nailed them the day before. So half of that second day was spent writing the bridges and the second verse, and the tweaking of details about the voice and the melody, and half of it was spent rerecording the vocal parts that were perfectly good the day before, but they just weren't as captivating.

So "Someone Like You" as it appears on *21* was written and recorded from scratch in the studio.
From beginning to end, yeah.

What was she singing to?
Just me playing the piano. She was gonna produce the record with Rick Rubin at the time, and he ended up producing the other two that I wrote with her, "One and Only" and "Don't You Remember." I thought he was gonna produce "Someone Like You" as well, so partly I was thinking, "This piano demo is gonna blow Rick's mind. He is gonna love this." But what happened was everyone fell so madly in love with the piano-vocal demo that they made it the record. They decided no one was gonna beat it. I imagine you could do an amazing classic-soul-pop version of "Someone Like You," but there was no need for it.

You've been working on your second solo album. Can you describe your process in writing and producing it?
I started out with 30 or 35 songs in Minneapolis,

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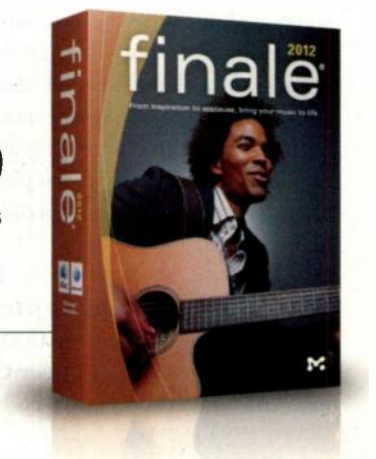

and right before I moved to L.A., made a big batch of simple piano-vocal or guitar-vocal demos and ended up with a very isolated and mournful-sounding batch of songs. So when I moved to L.A. a year and a half ago, I came with this notion of doing the record alone, like Stevie Wonder, Paul McCartney, or Elliott Smith. I ended up doing that, but for some reason it just didn't feel right or sound right. It didn't have the depth of emotion I wanted, and I'm not the best drummer in the world. So this year, I wiped the slate clean and gave a whole bunch of those songs another shot. I collaborated with some musicians that I've met in the year and a half that I've lived here and brought them into the album.

Did this new crew cause a chemical reaction with the lonely material you'd written?
It's funny because, with my own playing on the first version, the songs almost sounded too joyful and too bright. It seems like I've been able to get a simpler, darker sound with the musicians that came on board for this second try.

Were you recording live off the floor with the band?
There's only a handful of band takes on the record, and a couple of the most band-sounding ones were pieced together. In that way it's another real departure from *Free Life*, and really interesting to explore working that way.

Let's talk about some of your more recent collaborations. You worked with Pink on her new album; how did that go?
It felt like a really fruitful session. She had a brand new baby and was basically coming from that mommy fog back into the world of concentrating on things, and I was lucky enough to be part of those early days. We finished four songs, and one was way too country for a Pink album—but she's definitely got that in her DNA. Another song is called "Exit Strategy"; I think it's gonna be a B-side or a bonus track. "The Great Escape" is a very grand orchestra/piano/vocal number with me playing piano and acoustic guitar, and a lot of people sawing away at the strings.

You crashed the Nashville party with "Home," your co-write with Dierks Bentley, which became a Number One country hit. And since then you've collaborated with LeAnn Rimes and Kim Perry of The Band Perry. Seems like the dominoes have started to fall for you down there.
Maybe. It's funny, because I'd done so much writing in Nashville between 2000 and 2006, and nothing ever came of it. Then the Dixie Chicks album happened, and I almost felt permission to not go back because they were so mad at the Chicks for the album. And then, writing that song with Dierks, which went so well, maybe there'll be some more coming down for me in Nashville. LeAnn, Darrell Brown, and I did a three-person session that was super-fruitful. We wrote a great song on day one and another one on day two. Very revealing, exposed, raw songs that I like to write.

The professional country writers I've talked to seem to have a very particular kind of discipline and methodology. Did you find that instructive in any way?
I learned a ton from going down there once or twice a year for those six years. One enormously useful thing I learned was the idea of getting a song done in a day, which they do routinely in Nashville. There's a power to that—it goes against the "I'm not feeling it today" kind of mindset. I read this quote recently: There's always little muses around you all the time, so keep working and you'll have small inspirations all the time, and you might get a big inspiration once in a while. So don't just sit around waiting for the big inspiration. I learned that in Nashville.

You've also spent some time at the other end of the stylistic spectrum, with left-of-center artists like Britt Daniel of Spoon and Divine Fits, Ben Folds, and Lykki Li. Did anything come of those get-togethers?
With Britt, it was more like us just hanging around and talking, telling each other what our favorite tracks were and listening to things. It was fun. Ben and I got together a bunch; we talked about music and jammed on some of his new ideas. It felt like we had a real meeting of the minds. My hope is that I can get him to help me out on some track of mine someday. With Lykki Li, we started a song that I think is pretty cool—I'm supposed to send her a demo. But I feel like my role in situations like those isn't to try to write some big song for their album. It's something that you make up as you go along.

One enormously useful thing I learned [working in Nashville] was the idea of getting a song done in a day, which they do routinely. There's a power to that—it goes against the "I'm not feeling it today" kind of mindset.

You co-wrote a song, "Treacherous," with Taylor Swift for her recent album, *Red*. How did that go?
We squeezed in two days before a trip I was taking, and we did a song each day, totally country-style. But it was extremely inspiring. She gets such a backhanded appreciation from the press, but that's just a bunch of bullsh*t. She's so talented and so spontaneous, and she really was on fire for the sessions that we did together.

I was taken aback when I heard you had a song on Nas' *Life Is Good*. What was that like?
It was fascinating. The song is called "Roses," and I produced it with Al Shux. I got together with Nas and we talked about songs and subjects. I played the piano and he'd say, "Oh, I like that," or "Mmm, I don't know." I'd play the piano again and he'd say, "I like that." We did that until we got a piano theme that was inspiring and beautiful, and then Al came with his beats and amazing sounds, and turned my piano piece into a track. And then, after I left, Nas did the rap. I never heard Nas' part until the album came out, and all I was thinking was, "I just hope it's not so offensive that I can't play it for my parents."

And?
I'm not playing it for my parents. ■

Bud Scoppa has written for Rolling Stone, Creem, Rock, Fusion, Crawdaddy!, *and* Phonograph Record. *He's a senior editor at* Hits *and industry-news site* hitsdailydouble.com.

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Rearranging Expectations

Nurdy Tunes assemble tech and technique to compile exciting grooves

BY TONY WARE

YOU DON'T have to recognize the theme from Nintendo's *The Legend of Zelda* or appreciate a musical shout-out to the Power Rangers in order to appreciate what Nurdy Tunes has achieved. Winners of Strange Arrange—a hip-hop and R&B live-arrangement competition held in Nashville last July—the five-piece band put together a medley of hip-hop, R&B, pop, chiptunes, and cartoons and smashed it, earning them the title, a trophy, cash, and a recording session and video shoot with Musiq Soulchild.

In a cohesive 10-minute set, the group cut up and stitched together familiar melodies and original measures to transform the songs of Cash Out, Katy Perry, Rihanna, Wiz Khalifa, Daft Punk, an elf named Link, and some costumed children's television heroes. "We go for authenticity, mixed with a new youthful energy," says Jamahl Smith, one-fifth of the group.

Dropping some 8-bit funk into the mix would have been enough to reinforce the Nurdy Tunes name, but the way the band finally came together is pretty geeky as well: It happened through the Internet. Sean "Chopz" Wright, Dwele Coore, and Smith all attend Berklee College of Music in Boston, while Kerry "2Smooth" Marshall Jr. and Tadarius "T.Ray" McCombs live in Birmingham, Ala., and Miami, Fla., respectively. At Berklee, Wright started building a reputation by uploading videos of recognizable songs with reworked grooves that made you fall in love with the jam all over again. Links made it to Facebook walls, and pretty soon the guys found out about each other, started talking by Skype, and began comping together performances. Word got down to Soundtrack Entertainment, the organizers of Strange Arrange, who offered the group an audition for the competition. Despite all of this activity, the guys hadn't performed in the same room as a complete group until the day before they took the stage at the Limelight in Nashville.

But they killed it. Exhibiting the ability to vibe off each other's body language, Nurdy Tunes used guitar, bass, drums, and two sets of keys to add color and embellishments without obscuring the original songs. "We were in complete shock that we won at first, because we went last and got to hear everyone murder it and do some things we wanted to do, so we had to adapt on the spot while staying true to ourselves," says McCombs. "Next thing you know, it's five in the morning and we're on our way to the studio."

"Nurdy Tunes coming together was like the [Olympic basketball] Dream Team," says Marshall. "Everyone is strong in their area, but you can change any person's role and they'll step up to the plate and do what they need to do to deliver an arrangement that stays true to our formula and is full of feeling."

Following the competition, Nurdy Tunes reconvened at SAE Nashville with Musiq Soulchild, putting touches on a song and an interlude, stretching out motifs while adding sing-a-long flavor that stays true to the artist, injecting a J Dilla-type swing, and showcasing original touches. Working collectively with one mind and one goal, taking advantage of sharing a warm soundboard rather than emailing each other parts, Nurdy Tunes got that lightning in the jar.

Now, building on the momentum from the Strange Arrange endorsement, Nurdy Tunes will put out more videos and field new opportunities, including recent ones from artists including Diggy Simmons and Jacob Latimore, without compromising the little detailed, almost nerdy touches that make the group's core.

"It's all about staying in your lane," says Smith. "We didn't jump on live arrangements because it was hot, and we won't switch up our sound or underplay just to fit in. This isn't just a hobby, but it's also not just about capitalizing on one moment. We formed a brotherhood that will last a lifetime, and from that we'll grow, continue to move forward." ■

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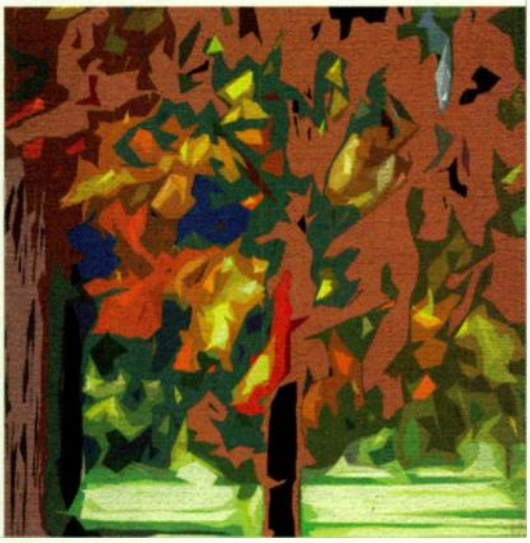
LUX BRIAN ENO

Brian Eno
LUX
WARP

AN HOUR-AND-FIFTEEN-MINUTE-LONG piece divided into sections of unequal lengths, Brian Eno's *LUX* is well, classic Brian Eno. Seemingly referencing such Eno landmarks as *Music for Films* and *Music for Airports*, *LUX* is an atmospheric anti-thriller of echoing tones, spiraling zither-like sounds, and hushed silences so free of agitation and aggression it positively radiates with Soma-like sweetness. *LUX* was borne out of Eno's work for the Great Gallery of the Palace of Venaria in Turin, Italy, so be careful not to talk as you observe its hallowed virtual halls.
KEN MICALLEF

Massive Attack
Blue Lines 2012 Remix/Remaster
VIRGIN

As initially envisioned, Bristol's Massive Attack represented elasticity, a nexus centered on a trio of soundsystem veterans playing with weight and pace while influenced by Def Jam Recordings, Lee "Scratch" Perry and PiL. This revisiting of the collective's 1991 master tapes is brighter, featuring audibly heightened separation; the clarity can briefly seem less viscous, but it's merely less shallow. The decompressed mix remains urgent, still laced with tendrils of dank, condensed bass and soulful gradients.
TONY WARE

Various Artists
Cold Blue Two
COLD BLUE MUSIC

This marvelous CD assembles 14 works by contemporary composers, including James Tenney, David Rosenboom, Larry Polansky, Gavin Bryars, John Luther Adams, and Daniel Lentz. While many of the composers here have roots in the experimental tradition, the pieces on this disc are fiercely consonant and infused with unique orchestrations and electronic processing. Fine moments include the stacked steel guitars of Chas Smith, and the pieces by label veterans Rick Cox, Read Miller, Michael Jon Fink, and Jim Fox. Essential!
GINO ROBAIR

Bill Withers
The Complete Sussex and Columbia Albums
COLUMBIA LEGACY

Yes, all nine albums, remastered on analog equipment from the original tapes. All those true, warm, soulful songs are revealed with love and reverence for the artist who made them. Engineer Mark Wilder described for the December issue of our sister magazine, *Mix*, the awe and rush of memory he felt when he first put up the master for *Still Bill* and heard "Lean on Me" in all its original glory. Thanks to him, you can feel it, too.
BARBARA SCHULTZ

Kreidler
Den
BUREAU B

This pioneering German band's 12th album shimmers in certain 1980s territory, from Phil Collins-sounding drum stabs to Peter Gabriel-worthy arrangements to the occasional Depeche Mode synth wash. Some may cite Eno as an obvious influence, what with the organic direction of its assembled blips and bobs, but *Den's* pulsating figures and varied tones and textures are more than ambient decoupage; they're like King Crimson slumming with Morton Subotnick at a Kraftwerk afterparty.
KEN MICALLEF

Mogwai
A Wrenched Virile Lore
SUB POP

Mogwai's 2011 full-length, *Hardcore Will Never Die, But You Will*, presented a pleasingly subtle slate of chiming/churning guitar anthems. This companion piece sublimates some, condenses others. Several artists (Cylob, RM Hubbert, Robert Hampson) reconvene wholly disassociated melodies into treated electro-acoustic silhouettes. Others (Tim Hecker, Klad Hest, The Soft Moon, Godflesh's Justin K. Broadrick) take liberties with obvious sources, reshaped into portamento suspensions, 8-bit drill 'n' bass and psychedelic drones.
TONY WARE

Graham Parker and the Rumour
Three Chords Good
PRIMARY WAVE

It's not just another great album from Graham Parker: It's the first one from Parker with the whole Rumour in 31 years! This terrific record is like a gathering point for Parker's many moods and talents. Check out the sweet love song "That Moon Was Low," or the extra-bitter "Coathangers." Parker's sharper than ever, and *Three Chords Good* is an unexpected gift from one of the greatest singer/songwriters to survive England's New Wave.
BARBARA SCHULTZ

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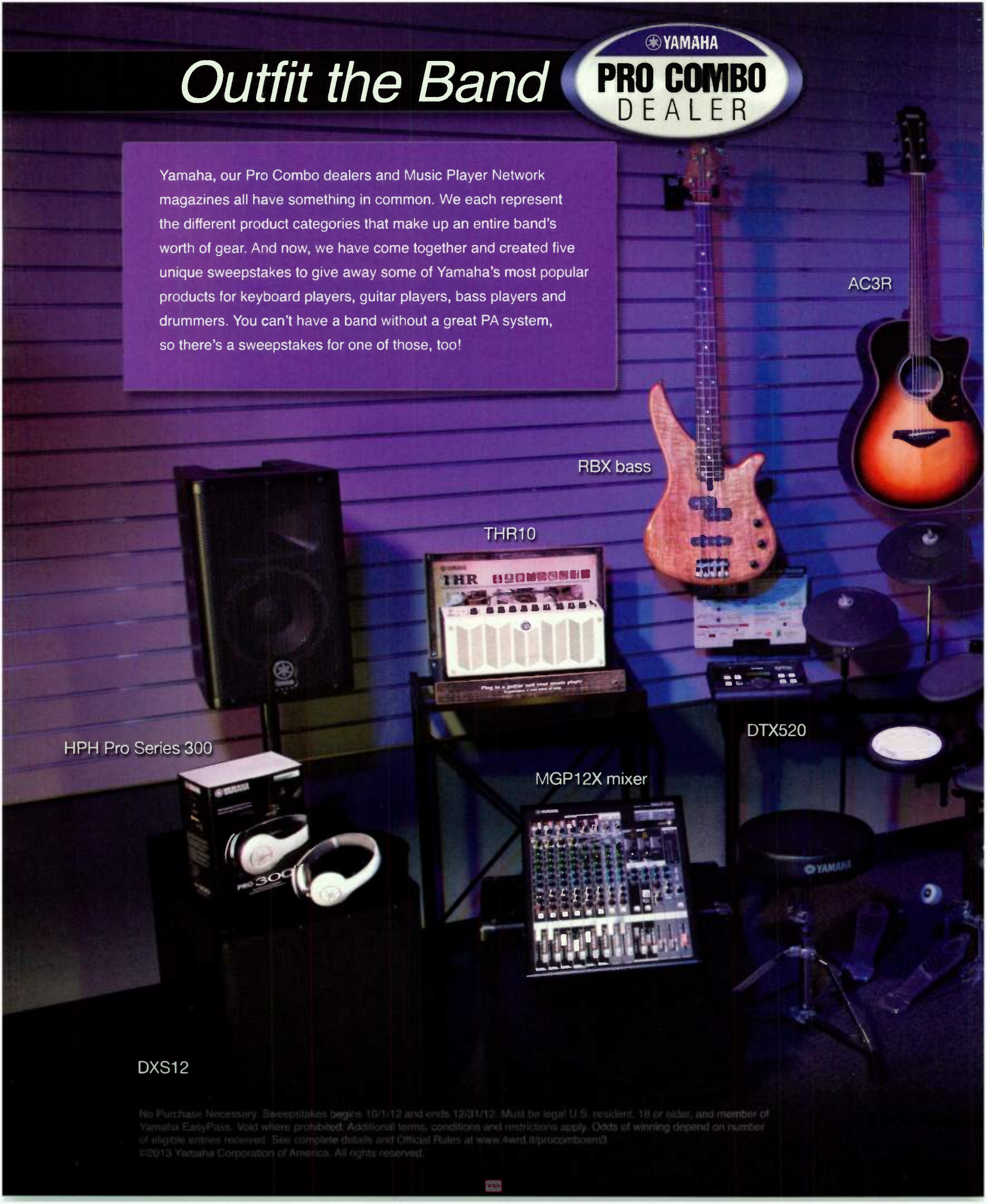


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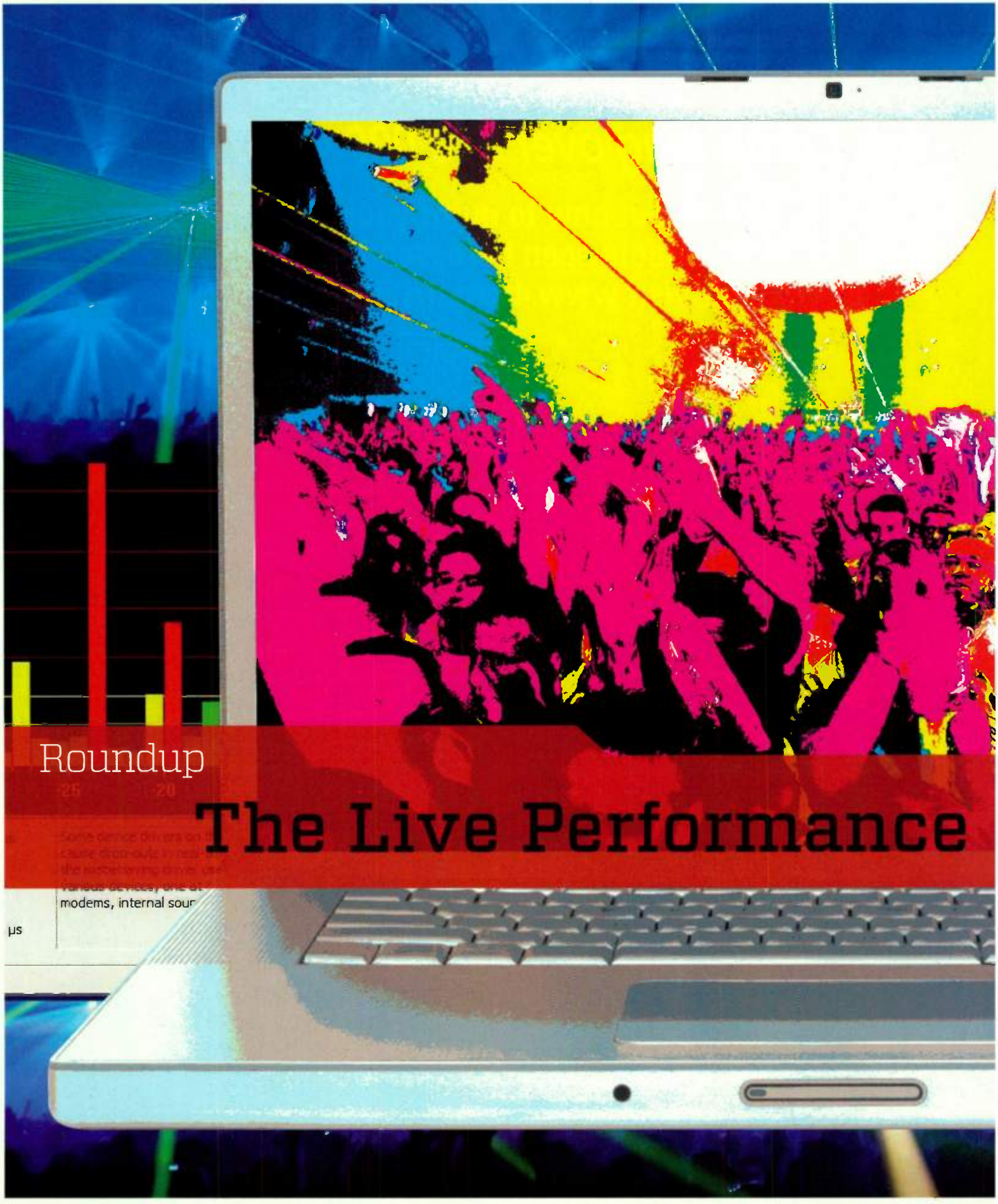
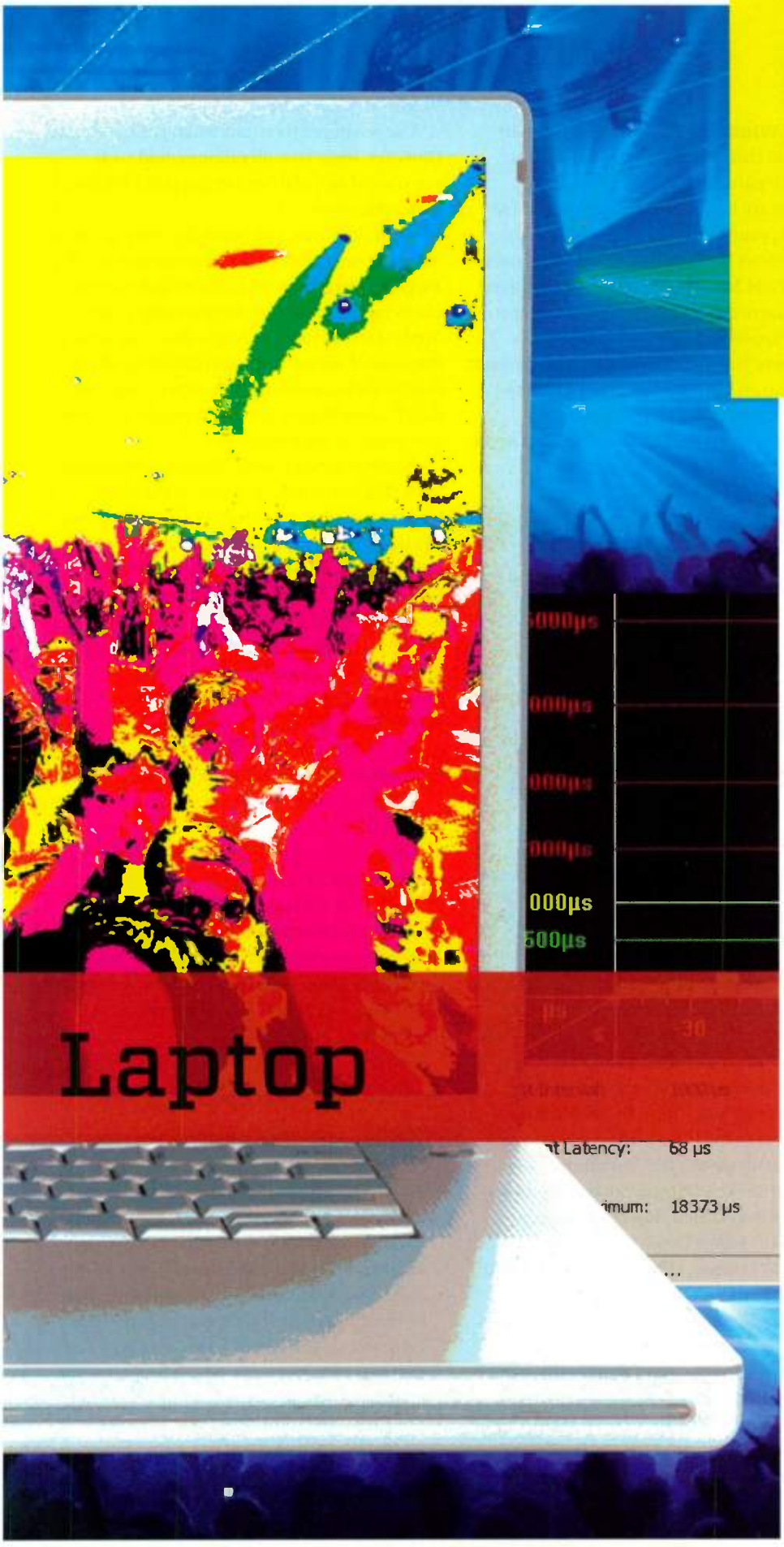


Roundup

The Live Performance



LUST

Take your studio to the stage—but not before reading this survival guide

BY CRAIG ANDERTON

LAPTOPS HAVE made it possible to bring your computer-based studio to the stage, but the needs of musicians are quite different from salespeople lugging around laptops to corporate offices so they can run spreadsheets and do PowerPoint presentations. You want power, performance, and portability—and you want it all now.

I've been doing laptop-based performances for more than a decade, and learned a lot in the process. So why reinvent the wheel? Read on, and save yourself the hassles of learning the lessons I learned the hard way. And, pick up some helpful gear suggestions for the tasks at hand.

Plan for the Worst The show must go on, so if your act is laptop-based and your laptop goes down, unless you're really, *really* good with acoustic guitar, singing, and kazoo, you'll want a Plan B. And assume your computer *will* die, because it will—the only variable is when.

The Mirrored Computer The ultimate backup is to have two laptops with duplicated contents. No matter what happens to computer 1, just slide in computer 2 and keep on going. (It can be impractical to carry around two computers, and fortunately, there are other options, so keep reading.)

Mirroring the System Drive Many laptops make it fairly easy to remove an existing system drive and replace it. A system drive is not only the most crucial

part of any computer but also the most likely element to fail (unless it's a solid-state drive, which we'll address later), so making an image of your system drive is inexpensive, and usually effective, insurance.

Mirroring to a New Computer The next best option is being able to mirror your computer on demand. If the problem involves not just a drive but something like a motherboard failure, you will likely need to buy a new laptop or borrow one. The best way to be prepared for this scenario is to bring all data necessary to reconstruct your set, as well as any host programs or plug-ins you use. Thankfully, the days of having to insert a CD-ROM for verification are behind us, but you will need serial numbers and activation codes to install from a set of backup discs or from online.

When creating your backup data set, be aware of any "gotcha" data. Some crucial data may live in a documents folder on your system drive, so make sure you have all of the data and preferences a program needs—a "file not found" error message during soundcheck is a buzzkill.

Don't overlook demo versions as a possible way to save your act. For example, the demo version of Ableton Live (the software I use for live performance) does everything except save. So, if anything happens to the registered version on my computer, I can download the demo, perform my set, use all the effects and instruments, and carry on.

Backup Cloud storage is wonderful—except when your hotel's internet connection makes dial-up look blazingly fast. You often need a gigabyte or more to reconstruct everything needed for your set, and that can translate to hours of download time. So, while having cloud backup is prudent, have a physical backup as well.

USB sticks or SD cards often have sufficient storage capacity for backup, which, given their robust nature and fast transfer times, makes them ideal. For really large amounts of data, external drives are inexpensive and plentiful. Solid-state external drives (SSDs) are even better, as they're pretty much immune to mechanical shocks, and can tolerate the rigors of the road better than platter-based, mechanical hard drives. Call me paranoid, but I use the cloud and carry some kind of drive *and* DVD-ROMs . . . then again, I've never had to cancel a performance.

Mac vs. Windows For many people, their platform of choice is like a religion, but bear with me (Figure 1). For live performance, computers are basically appliances dedicated to running your software of choice. Sure, there are differences in the operating system between Windows and Mac—but onstage, the first thing you do is *leave* the operating system and open your fave application. Programs like Native Instruments Traktor, Steinberg Cubase, Ableton Live, and so on look and feel pretty much the same regardless of the platform you use.

For about a decade, I used nothing but Apple gear for live performance. Apple makes great computers, and the older models were much easier to maintain tha Windows machines. Now, I use Windows products live simply because if anything goes wrong, it's easier to replace a Windows machine. Apple has about 250 Apple Stores in the U.S., and also sells through Best Buy (with about 1,055 stores) and local authorized dealers. But you can buy Windows laptops not only at Best Buy, but also Target (1,740 stores), Office Depot (1,100 stores), Staples (1,575 stores), OfficeMax (almost 1,000 stores), and various other outlets.

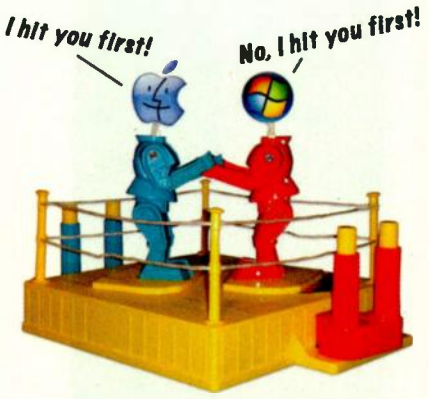


Fig. 1. Yes, this illustration is recycled from a recent Craig's List column, but it bears repeating: Choose a computer for the job you need to do, not for its logo.

Also, while Apple makes gorgeous laptops, they can be overkill for live performance. You're paying for the extra battery life (which doesn't matter, for reasons we'll explain later), the lighter weight, the retina display, and Industrial Design of the Gods. You're more likely to be able to afford two Windows machines and have a mirrored backup than two fully loaded Macs.

Use whatever you want when you get home. However, some considerations could sway you toward one platform or the other for live performance.

With Windows, you're on your own as far as tech support—don't expect the salesperson at Target to provide much help. With Apple, you can bring any laptop under warranty to any Apple store, anywhere. Apple also maintains a database of names and serial numbers, so you don't even have to bring any paperwork, and they'll know if your particular production run was prone to any problems.

Another problem with Windows machines from "big box" stores is they usually come loaded with junk, like trial versions of software you don't need, bloated "assistance software" that's just a waste of drive space, and the like. These can slow down performance, and what's worse, you may not receive the actual Windows OS discs, which would let you wipe the hard drive clean, install Windows, and start over. Learning how to get rid of the bloatware isn't difficult, but if you don't know how to do it, you'll likely run back screaming back into the comforting arms of an Apple store.

But there's much to be said for the low replacement cost of Windows computers, and the ability to get them up and running in very little time. Furthermore, companies like PC Audio Labs, Rain, and ADK make laptops designed specifically for musical applications. They're more expensive than a cheapo Toshiba from Office Depot, but they basically you give you an Apple-type, optimized experience on the Windows platform.

In any event, you want to choose the right laptop, so check for the following.

- With non-Retina MacBook Pros, pay the extra money for an internal 7,200 RPM drive, or do the DIY upgrade for less. The same is true for Windows. The extra speed compared to a standard 5,400 RPM drive means everything happens faster and audio streams better.
- Solid-state system drives are appealing, but be careful. 250 or 500GB may sound like a lot of storage, but you'd be amazed how fast that gets eaten up with today's programs and media, particularly sample libraries if you use virtual instruments. If you do get an SSD, factor in an external drive to hold library data and the like, even though this reduces portability somewhat.
- A bigger screen is worth the extra bucks and

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Fig. 2. Adapters like Belkin's Thunderbolt Express Dock let Thunderbolt drive a host of legacy devices.

portability hassles. You just can't look cool on stage if you're squinting.

- Don't worry about battery life. Laptops have all kind of power management schemes for squeezing the last possible drops of energy out of batteries, but these degrade performance. Run off AC power when you're onstage, and set the power options for maximum performance, not minimum power consumption.
- Don't skimp on RAM. Extra RAM and additional processor cores are investments that pay rich dividends.
- Make sure you have the ports you need. This is important enough that it deserves its own discussion.

Interfaces Avoid a computer's internal audio if possible, which implies adding an audio interface. If you're thinking of FireWire, also think back to when Roland Reagan was president, Human League was topping the charts, and Dell introduced a computer with a blazingly fast 16MHz processor—because that's when FireWire was born (although both it and USB came into prominence in the mid-'90s). FireWire has had a great run and will continue to serve us well, but it's getting harder to find laptops with FireWire ports. Some Windows laptops have ExpressCard slots where you can insert a FireWire card, but that's kind of a kludge, and not particularly stable (from a mechanical standpoint) for live performance.

Although USB is the most universal solution these days, Thunderbolt is now being built into Windows laptops as well as Macs. Thunderbolt is an extremely fast (10Gbit/second data transfer), low-latency interface protocol, although currently, the only audio interface available for Thunderbolt is Universal Audio's Apollo, and as of this writing it's Mac-only—although that may have changed by the time this issue hits the streets.

One of Thunderbolt's great features is that with various adapters (Figure 2), you can easily run FireWire, Ethernet, USB, and even PCI cards from the interface; your older gear won't become a doorstop. It's entirely possible that someday, the easiest way to run a FireWire interface will be through a Thunderbolt adapter.

Laptop Security The same element of portability that makes laptops so desirable for live performance also makes them easy targets for theft, and 97% of stolen laptops are never recovered. But there's more to security than theft, like making sure your laptop doesn't go crashing to the floor, or damaging the motherboard by catching a dongle on something. Here's a grab bag of tips to keep your laptop safe.

- Never leave a laptop, or computer bag, visible in your car when it's parked. Keep your computer in the trunk, or hidden in a brown paper shopping bag.
- At the airport, when you have to take the computer out of its bag, put it on the X-ray machine's conveyor belt last, after your belt, shoes, carry-on, etc. It's almost impossible for someone to take your laptop and go out the way you came in, but if it's the first thing off the belt, it's all too easy for someone to grab it while you're being wanded or felt up by a TSA worker.
- The computer can build up a static charge when it goes through the X-ray machine. Don't touch any of the ports when picking up the computer; touch the cover first to discharge any static electricity.
- On the plane, put the laptop under the seat in front of you. All you need is for someone to put the carry-on with their rock collection on top of your laptop bag in the overhead bin. Also, contents in the overhead bin can shift; someone might open it, and if your bag ends up leaning against the bin's door, it can crash to the floor.
- At the gig, if possible, secure the laptop to a table or stand with bungie cords. Many laptops have a flat area between the keyboard and screen, or between the keyboard and touch pad, where bungie cables can sit without getting in your way.
- Keep the laptop's cover closed unless you're performing. This protects both the screen and the keyboard.
- Use cable extensions between laptop connectors and the outside world. For example, use a short USB extension cable with dongles (Figure 3), and an extension cord between audio outs and the cables going to the front of house mixer. The goal is to have all your cables configured so that if someone trips over them, they'll pull out of the extension rather than out of your computer. Use duct tape to affix the extensions to your playing surface so they're held securely in place.
- Kensington locks aren't foolproof—no anti-theft device is—but they can be a good deterrent (Figure 4). These work by attaching a difficult-to-cut cable to your computer; you then thread the cable around something permanent or difficult to move, like a table leg bolted to the floor.

Optimizing Performance The live performance laptop should be dedicated to only one task: Making you look good on stage. All it needs to do is the minimum necessary to run your programs as quickly and efficiently as possible, so relieving it of its other duties can increase performance and reduce latency. The following tips relate to Windows machines, but some of the concepts apply to Macs as well.

Fig. 3. An extension cable keeps dongles from sticking out from the motherboard, which invites breaking them off at the base—and could necessitate a pricey motherboard replacement.

Fig. 4. Kensington's MicroSave DS keyed notebook lock fits the standard Kensington security slot found in 99% of notebooks and computer devices.

Always run the laptop from its AC adapter, and disable power-management schemes. In Windows, create a power plan for live performance: Select Power Options from the Control Panel, pick a plan, and click on Change Plan Settings. Set "Put the Computer to Sleep" to Never, then click on Change Advanced Power Settings. Expand the Processor Power Management section, and set both the minimum and maximum processor states to 100% for both AC power and battery (Figure 5). While setting them to maximum is important, setting the same value for each is also important. One laptop I used produced an audible click every time the processor switched to a higher- or lower-performance state. Next, open Device Manager from the Control Panel, expand the various trees, and disable (do not uninstall!) devices you won't need onstage. Start with internal wi-fi (Figure 6), which can have a major negative impact on performance. But you also don't need the onboard camera, internal sound card,

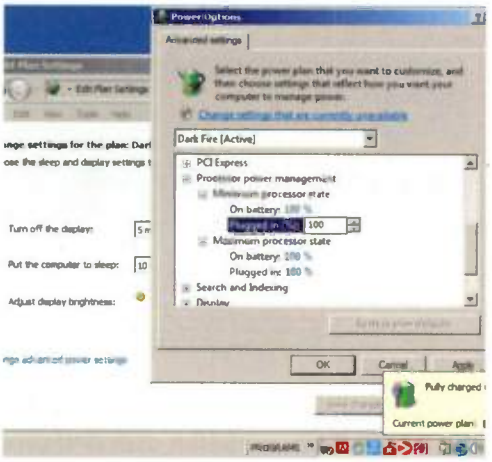

Fig. 5. For the best performance, run your processors to the max under AC power.

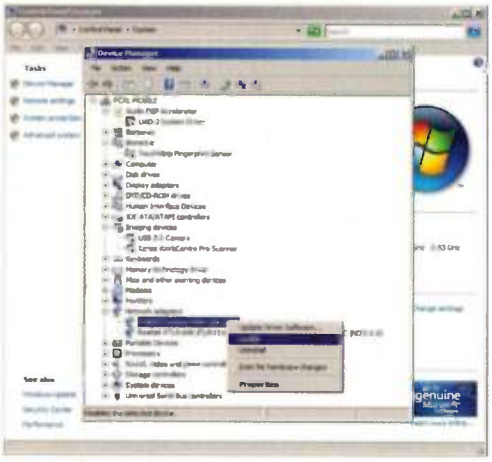

Fig. 6. Disable wi-fi and other performance drains using Windows' Device Manager.

Ethernet port (except in rare instances), fingerprint sensor, and the like.

While in the Control Panel, click on System then click on Advanced System Settings. Click the Advanced tab and under Performance, click on Settings. Under Visual Effects, select Adjust for Best Performance. This basically turns off all eye candy. Although in most cases a dedicated chip offloads graphics tasks from the CPU, from time to time I still find audio programs that don't function as well under the Aero look as they do under the simpler Classic Windows theme.

Now click on Start and in the Search box, type msconfig and open msconfig.exe. Click on the Startup tab, and uncheck any frivolous startup programs. (Do you really need Adobe updater to check for updates to Acrobat when you're playing a DJ set?) This frees up CPU memory and distractions. As you've already disabled the wi-fi and won't be checking your email while performing, turn off anti-virus programs, as they

may decide to scan at an inopportune moment and slow down your system.

Finally, download the free DPC latency checker utility from www.thesycon.de/deu/latency_check.shtml. This monitors your laptop's realtime performance and displays CPU spikes, which reduce performance, or worse yet, can cause audio dropouts (Figure 7).

Fig. 7: The window on the left uses DPC Latency Checker to show a laptop's performance prior to performing the system tweaks mentioned in the text; the red spikes in particular will almost certainly cause dropouts at lower latencies. The window on the right shows performance after turning off unnecessary devices, closing unnecessary programs, and changing the look from Aero to Classic.

USB RAM Sticks As RAM Disks With some programs, you can use USB RAM sticks as external disks, and stream data from them. Although USB sticks aren't fast when writing, they read very well. For example if you use a virtual instrument that reads samples from a library, load the library on a RAM stick, and point the program to the library.

My favorite application for this is running Ableton Live; using this technique increases performance so much you can even use laptops with slower 5,400 RPM drives. First, invoke Save Live Set As and navigate to a USB 2.0 stick to create a project folder. Then go to File > Collect All and Save, and click "Yes" to all the options.

Open the .ALS Live project file from the folder on the USB RAM stick, and select all audio clips by drawing a rectangle around them. Select Live's Clip View, and under Samples, uncheck RAM.

Now Live will think the clips are disk clips, and stream them from the USB stick. But note that now, Live no longer has to stream *anything* from the laptop's hard drive, and doesn't store these clips in system RAM either, because the program doesn't think they're RAM clips. So basically, you're streaming all that audio without it taking up any of your laptop's RAM, or stressing out your hard drive. Is that cool or what?

Laptop Love So there you have it: a survival guide to using laptops live. In all my years of laptop-based performances, so far, the show has indeed gone on. Treat your laptop kindly, and it will return the favor. ■

Best of the Best

The new Electro 4D features everything from the award winning Electro 3 series, adding a brand new set of physical drawbars, the tone wheel organ engine from the Nord C2D and USB-MIDI - all in an ultra portable package sporting a 61-note Semi Weighted Waterfall keybed.

A division of Jam Industries Ltd

For more information contact
info@AmericanMusicAndSound.com

nord

www.nordkeyboards.com

Bose L1 Model 1S Portable Line Array System

Pioneering speaker line adds a mid-size format

BY CRAIG ANDERTON

Bose L1 Model 1S with B2 sub and ToneMatch engine.

SUMMARY

STRENGTHS:
Convenient and compact. Great sound and dispersion; easily fills venues of intended sizes. B2 sub pumps up the low end. ToneMatch is very useful. Small footprint. Includes carrying bags for all elements.

LIMITATIONS:
Only one input without ToneMatch.

Price varies with system; for example, about $1,799 with B1 sub, $2,299 with B1 sub and ToneMatch engine, $2,499 with B2 sub and ToneMatch engine
bose.com

BOSE PUT the "personal P.A." on the map with the original L1, which despite being greeted initially with skepticism has proven itself as a brilliant, effective design. However, there's been a hole in the product line between the high-end L1 Model II with its 24-speaker line array and the L1 Compact system, with a six-speaker line array. The L1S splits the difference with a 12-speaker line array and coverage for venues holding around 300 people—perfect for coffeehouses, gyms, churches, and the like. But overall, L1 Model 1S system leans more toward the Model II than the Compact, particularly as it can drive either the original B1 sub or the new, more powerful B2.

The Bose Paradigm The L1 Model 1S system consists of one or two bass subs, a line array column that connects to a powered stand *sans* cables (the combination weighs about 50 pounds), and a ToneMatch port that connects to the optional T1 ToneMatch audio engine. As with other Bose systems, the P.A. goes behind you, not in front, so monitors aren't needed; its claimed 180-degree dispersion (and my experience bears that out) is exceptional, but so is the projection—level dropoff with distance is considerably less than expected.

The system's only input is a 1/4" analog balanced/unbalanced input with trim control, so the ToneMatch engine with its digital four-channel mixer is an extremely useful accessory. It features more than 100 presets for specific instruments and mics that tailor their sound to Bose systems, as well as effects (five global reverb algorithms, along with per-channel effects like delay, modulation, dynamics, and EQ); these settings can be stored as scenes. It even has a chromatic tuner.

Enter the B2 A single cable (included) connects the heavy-duty NL4 cable connector to the sub. (The Model 1S can drive a single B2, while the Model II can drive up to two B2s when used with the optional Packlite amplifier.) The B2 features two 10" woofers for serious bass—excellent for DJs and bassists. It weighs 45 pounds, compared to the B1's 25 pounds (and is somewhat bigger), but remains portable, and the extra low end is worth it. Subjectively, it seems the B2 actually gives more lows than stacking two B1 cabs.

A three-position switch tailors the B2 for various applications: maximum bass for DJs, normal for bass and kick, and less bass for singer/songwriters or background music. (Note that L1 Model II systems with updated powered stand firmware can also use the B2, and with its switch in the normal position, the B2 also works with the older Model I and Classic systems.)

Bose on a Budget I've been using Bose systems for years, including use as a guitar amp. (It's great.) Frankly, once I switched, I never looked back. They're easy to set up, compact (my entire live rig fits in a 2000 VW Beetle), sound more like a loud hi-fi system than a P.A., give the audience a sonic treat, and have been 100% reliable. The L1 Model 1S brings those advantages in at a lower price, while still offering exceptional performance—and now, the option for bigger bass. I expect to see these populating a lot of stages in the years ahead. ■

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HK Lucas Nano 300 Portable Sound System

Petite P.A. packs a punch

BY CRAIG ANDERTON

SUMMARY

STRENGTHS:
Easy to transport, set up, and tear down. Multiple inputs. Allows various mono and stereo configurations. Clean sound and overload protection. 8" woofer provides decent lows.

LIMITATIONS:
Nothing significant.

$1,100 MSRP, $700 street
hkaudio.com

SOMETIMES, DOWNSIZING is good—like when back-breaking sound systems shed the pounds but still deliver the volume. The Lucas Nano is the first "personal P.A." that I've reviewed that you could take to the gig on a motorcycle. (It weighs 23 pounds, and measures 16.5" x 15.5" x 12".) While it won't fill an arena, for instant parties, presentations, weddings, and even venues like restaurants, the Lucas Nano is a surprising, well-engineered performer.

The Package The ported cabinet has an 8" woofer with a 160W Class D amp, and drives two 3.5" satellite speakers (35W each). These latch into the cab for easy transport. Satellites can be set up in several ways: stacked on each other and mounted on the top of the woofer, everything snaps into place—no wires. You can also stack the two, mount them on a pole stand that fits into the base to raise the satellites' height, and run a speaker cable to them; or go for stereo, and mount one on the woofer and one on a floor stand, or both on floor stands. Link two mono units to create a more powerful stereo setup.

The satellites' small size and 60-degree dispersion lets you fit the system into places where larger systems might not work. For example, snap the satellites into the woofer and raise the entire assembly on a chair so the sound is "off the floor" and at ear level. Or, when running in mono, separate the two satellites for greater coverage.

Inputs and Controls The system has three mixable inputs for various needs. The first handles mic or line signals via a combo 1/4" jack, with volume and "contour" control; this feeds both channels with stereo setups. Varying contour tunes the response for voice; for line ins, boosts the highs and lows while cutting mids as you turn it up. The second input has two combo jacks for stereo line level signals (summed for mono setups, and switchable to instrument levels), along with volume and contour controls.

The third offers dual RCA jacks or a 3.5mm stereo mini jack—ideal for playback from consumer gear like iPods, DVD players, and the like. Backing tracks, anyone? This input has volume and contour controls as well.

Other controls include woofer level, balance control for stereo setups, and stereo/mono switch, along with two 1/4" jacks that can send a mix of all signals to a recorder, or serve as thru jacks for input 2. This configuration allows using the Nano as a stage monitor setup, with the outs going to the front of house.

Is It for Real? While you need to be realistic about the size of the venue that you can fill with this system, I think anyone would agree that the sound levels surpass its size and weight. What's more, the convenience factor is off the hook—set up anywhere, any time, with minimal hassles. There's a wide variety of "personal PAs" available, with price points ranging from hundreds to thousands of dollars. While you can spend less (or more) than what you'd pay for the Lucas Nano, HK has prioritized cost-effectiveness to give more than expected for the price. If you're considering a lower-cost system, I think it's worth stretching the extra couple hundred dollars and if you're considering a higher-priced one, you might find that the Lucas Nano does everything you need anyway. ■


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Cakewalk Sonar X2 Producer

Attention to detail complements multiple new features

BY CRAIG ANDERTON

The ProChannel (left column) has an FX chain loaded, as well as the new Breverb 2 reverb and Console Emulator plug-ins. Note the volume automation lane in track 10, and the take lanes in track 14. The browser to the right displays some of Sonar X2's roster of audio plug-ins, which can be dragged into a track or clip.

SUMMARY

STRENGTHS: Continues to hone workflow advancements from X1. ProChannel can load VST/DirectX plug-ins via FX Chains. Several important new plug-ins. Streamlined audio engine. Automation and Take Lanes. Supports Windows 8.

LIMITATIONS: Staff view remains primitive. Can't resize control bar. More colorization options than X1, but still fewer than pre-X1 versions. No VST3 support.

$599 MSRP, $499 street
Upgrades from $99 to $399
cakewalk.com

SONAR X1 was a radical, controversial departure from Sonar 8.5. While many hailed the more efficient workflow and sleek design, others felt adrift in an unfamiliar paradigm—while still others sensed the potential, but followed the "always wait for the first update before plunging in" guideline.

X1 continued to evolve, rewarding the early adopters while making a strong case for the skeptics. Now X2 has realized X1's potential—amplifying the strengths, while mitigating the limitations. Although X2 may not seem like a major update initially, the hundreds of changes—both minor and major—result in a *far* greater whole than the sum of its parts.

Along with new features and workflow improvements, Cakewalk has wisely prioritized stability, streamlining the audio engine, and revising older elements. It paid off: A quick glance at the Cakewalk forums finds most users are not only very pleased, but calling X2 the smoothest rollout yet.

Because there are so many useful changes (like the simplified and more efficient Smart Tool, per-track arpeggiator engine that allows layered soundscapes, timeline-based zooming, and the like), we'll need to restrict this review to the "marquee" features.

Fix Meets Feature When you make something better while you fix it, it crosses over into a new feature. Comping and automation, formerly two of Sonar's weaker elements, have been improved with separate lanes for takes and automation. Take lanes share FX bins, I/O, sends, and mix controls with the "parent" track, but otherwise perform just like standard tracks—you can even insert plug-ins (*i.e.*, "object-oriented" editing) into any clip in any lane.

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Hand-built FET compressor with a wide range of tonal options

HELIOS 69-500
Legendary mic pre/EQ, famous for "the sound of Olympic Studios"

RUPERT NEVE DESIGNS 543
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The automation lanes make for easier, more precise automation control (as well as simpler copy/paste within lanes), and even include a per-lane automation mini-slider control. However, you can still see and filter automation data in the parent track—ideal for overlaying automation over clips or other automation for comparison.

New and Notable The Auto Track Zoom option saves hours: You can minimize all track heights in track view, but adjust one track for an optimum track height. Now whenever you select any track, it will adopt that optimum height, while the others remain minimized. Bye-bye, constantly resizing track heights.

Quick Grouping now goes way beyond just grouping faders and knobs, such as inserting modules in the ProChannel, bypassing like modules, etc. Here's an example: By holding down one key and performing one right-click, you can insert the new Console Emulator plug-in into all ProChannels simultaneously. As your mix progresses, you can similarly bypass/enable them or change all of their controls simultaneously. You can even Quick Group effects chains controls across multiple audio channels. Although you can't Quick Group everything, limitations are few.

The audio engine is far snappier, starts to approach gaplessness, and handles higher track counts with less effort. Also, the main ProChannel complaint (not being able to load VST plug-ins) has been answered by letting the ProChannel load FX Chains, which continues the trend to consolidate Sonar-specific interface elements in the ProChannel. I do almost all my basic channel processing with the ProChannel, and use the FX bin only for specialized plug-ins.

Additional Plug-Ins Overloud's Breverb 2 algorithmic reverb has a more airy, transparent sound than the older Sonitus algorithmic reverb, as well as a greater range of controls. It's a honey, and gets extra points for including an additional ProChannel version. Also, no more Guitar Rig—X2 includes a special version of Overloud's TH2 called TH2 Producer. Like all amp sims, you need to wrestle with it, but you'll find some very useful emulations.

There's the full version of Rapture, one of my absolute favorite soft synths thanks to its modulation capabilities (I even created two expansion packs for it), as well as a version of Roland's R-Mix that retains all essential functionality—it just cuts out redundancies like R-Mix's internal recorder. This visually-based processor has a bit of a learning curve, but stick with it—it has really useful applications, like removing kick drums from loops, or applying processing to specific frequency ranges.

R-Mix Sonar and Overloud's TH2 Producer amp sim are new plug-ins for Sonar X2.

The Console Emulator is a new ProChannel plug-in with separate channel and bus versions; it adds the subtle nonlinearities that are characteristic of analog electronics and transformers. When I first tried inserting it into a project, I was unimpressed. But then I followed Cakewalk's advice and inserted a Console Emulator into all channels *prior* to doing a mix. The difference for any individual channel is minor, but the cumulative effect is impressive. Now, I'm a believer.

So What's Missing? Staff-view fans—or rather, those who'd *like* to be staff-view fans—will find no improvements, although Music XML export facilitates working with notation programs. Also, V-Studio control surface development always lags behind the software itself, but I've confirmed this will be addressed in the next update. Three other X1 complaints—the inability to customize the Control Bar (especially for smaller screens), no VST3 support, and less flexible colorization options than 8.5—remain.

Smarter, Easier The more you dig, the more you find; the attention to detail is noteworthy. The linear-phase EQ and multiband compressor, which always sounded great but glitched like crazy when adjusting parameters during playback, don't glitch any more (really). Automated parameters are bolded in the Edit Filter and Automation menus. You can scroll the ProChannel with keyboard shortcuts. The Matrix view's timing is solid. A Smart Grid snap can track grid resolution . . . or not. And there are lots of useful enhancements to the Skylight interface for the Inspector, Browser, Track View, Control Bar, and more—you get the impression that someone who uses Sonar 24 hours a day kept track of every "it sure would be nice if . . ." workflow feature, and decided to implement it.

X2 is a refined, smarter, easier-to-use, highly tweaked update of X1. It takes a while to learn *all* the subtle improvements (read that help file!), but the more I use X2, the more I find I'm tracking and mixing faster, with less effort, than ever before. ■

More Online
Listen to a music video recorded and mixed using Sonar X2.
Emusician.com/january2013

THE LUST FOR LIVE

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access

KMI QuNeo Controller

Innovative multi-touch functionality for multiple applications

BY REEK N HAVOK

SUMMARY

STRENGTHS: Smooth and controllable. Multi-touch response. Cost-effective. Works with computers and iPad, and can output over 5-pin MIDI DIN connectors. Looks cool.

LIMITATIONS: Power supply cable length limits distance from iPad.

$249.95 MSRP, $200 street
keithmcmillen.com

THE IPAD-SIZED, multi-touch QuNeo looks like fun straight out of the box, with its Akai-like drum pads surrounded by a variety of oblong, circular, and triangular-shaped pads—all illuminated with multicolored LEDs. Its micro-USB connector plugs into your computer, or with some optional accessories, can provide a 5-pin DIN MIDI output or connect to an iPad. Interestingly, it had no problems sharing power on a 7-port hub with a variety of other devices.

A free, downloadable Mac/Windows editor includes presets for various applications, but also allows deep programming for the note number and continuous controller (CCs) assignments that correspond to pressure on X and Y locations, as well as four sets of preset banks for the sliders and circular pads. Rotary controllers sense direction and transmit various data; additional pads provide transport, bank select, and other standard controls, but are programmable for just about anything your twisty little mind can conjure up.

The controller has two main modes. Drum mode assigns one note and three CC messages (X- axis, Y-axis, and pressure) per pad while Grid Mode allows one note and one pressure CC in each corner. Sixteen preset locations allow storing and recalling settings, and a "controller mapping assistant" mode provides for quick, on-the-fly assignments; this isolates one of the multiple CCs that can exist at a time on a pad for easier mapping. Bank select buttons allow multiple settings within each preset, and can be changed individually for each of the horizontal and vertical sliders, rotary controls, and the big horizontal slider.

The LEDs under each pad respond to pressure and location, and change intensity and color independently in each corner. Sliders provide a visual indication of the setting by retaining the lights where you last left off—nice.

From Inspiration to iPad I opened a Reason song, selected a synth, and blindly started tapping, pressing, and leaning on pads, sliders, and buttons. The unique combination of versatility and control was truly inspiring, as was creating some wild effects that only a realtime multi-controller can do in one pass. I could imagine an endless string of possibilities from meek to . . . Reek.

Multi-touch worked well, and even when sending *lots* of control data with pad pressure and side-to-side movement, all controls were smooth and predictable. Settings can revert to a user-defined value when released, and pads can latch a chosen value when you release the pad.

Next up: iPad. You'll need the optional USB "Y" cable and power supply, plus the iPad Camera connection kit's USB connector. I would have preferred longer USB cables on the power supply; the end to connect the iPad is only about 30" long. (Add something like the Anker SlimTalk battery pack to eliminate the power supply constraints, and you get a really cool portable iPad controller.) Regardless, control was equally smooth, and the iMS-20 was a gas with QuNeo—and very addictive.

QuNeo is a lot of product for the money. You'll want to spend some time setting up the controls just right (remembering what you've assigned is key), but overall, QuNeo is a versatile control option for either stage or studio. ■

Reek N Havok is a four-time Platinum Album recipient, drummer, sound designer for various instrument manufacturers, and interactive exhibit designer.

More Online
See videos of QuNeo in action controlling Ableton Live.
Emusician.com/january2013

1

2

3

4

1
ADAM Audio
F Series
Studio monitors
F5 $499.98/pr., F7 $799.98/pr., SubF $399.99
HIGHLIGHTS The F5 (shown) includes an ART tweeter and 5" midwoofer, both powered by 25W RMS power amps; the F7 powers an ART tweeter with a 40W amp, and 7" woofer with 60W amp • both have high EQ, low EQ, and volume controls • the SubF's 8" woofer is driven by a 150W RMS PWM power amp; it includes a volume knob, crossover frequency control, and phase switch
TARGET MARKET Smaller studios, post-production suites
ANALYSIS The F Series' lower price point will likely bring ADAM's speakers to a larger user base.
adam-audio.com

2
Unit Audio
New Unit
16 x 2 analog summing mixer
$299
HIGHLIGHTS 16 channels of physical analog summing • hand-assembled, tested, and wired point-to-point in Nashville • features Neutrik connectors and Xicon resistors • costs less than some plug-ins designed to emulate analog summing
TARGET MARKET All-digital studios that require summing signals "outside of the box"
ANALYSIS The subject of analog summing vs. mixing in the box is controversial, so Unit Audio's website features sound samples of a strictly "in the box" mix and a mix run through a Unit Audio analog summing mixer.
unitaudio.com

3
Roland
Integra-7
Sound module
$2,399
HIGHLIGHTS Rack unit with 6,000 expressive sounds (SuperNATURAL sounds, PCM sounds, and all 12 SRX expansion boards) • independent acoustic, synth, and drum sounds • 17-part ambience engine allows graphically controlling each part's distance and position within a 360-degree sound field • multiple effects engines • iPad editor app • I/O includes stereo XLR outs and eight 1/4" phone outs
TARGET MARKET Stage and studio
ANALYSIS Roland's SuperNATURAL sound and Behavior Modeling technology blurred the line between acoustic and electronic instruments; these sounds are now available in a compact rack unit.
rolandconnect.com

4
Nord
Electro 4 HP
Stage keyboard
$2,999
HIGHLIGHTS 380MB of memory for Nord Piano Library sounds • 128MB of memory for Nord Sample Library sounds • C2D tonewheel engine with rotary simulations and drive • 73-key Hammer Action Portable (HP) keybed • digital LED drawbars • enhanced Sound Manager functionality • MIDI over USB
TARGET MARKET Touring keyboardists, studios
ANALYSIS Nord expanded the stage piano concept in two directions: better pianos and organs, and the ability to load other instruments via samples. The 4 HP is the latest generation, and enhances both aspects.
nordkeyboards.com

All prices are MSRP except as noted

5 6 7 8

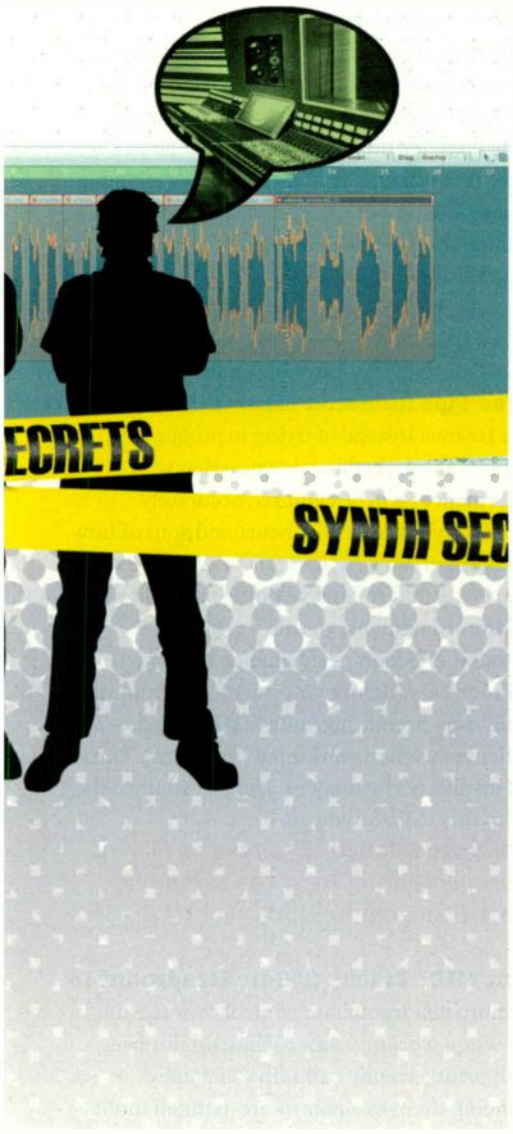
5
Notion Music
Notion 4.0
Music notation software
$99 download, $129 box
HIGHLIGHTS Cross-platform compatibility between desktop and iPad versions • audio samples performed by The London Symphony Orchestra • 64-bit Mac/Windows support • 64-bit ReWire host or slave • new interactive entry tools • export as PDF • improved MusicXML compatibility • save to SoundCloud
TARGET MARKET Composers, students, studio musicians
ANALYSIS Staff and notation views can be the weak links in major DAWs. Notion fills that gap by making it easy to work with notation, play back scores through quality samples, and work with DAWs via ReWire.
notionmusic.com

6
Propellerhead
Soul School 2
ReFill Library
$99 download
HIGHLIGHTS Sequel to the *Soul School* ReFill • organic-sounding, flexible collection of soul loops and samples • comprises nine grooves recorded live without overdubs, broken up into individual instruments and tempo-independent loops • all loop content is Dr. Octo Rex-compatible, with additional construction kits for the Kong Drum Designer
TARGET MARKET Reason owners looking for soul and vintage-oriented construction kits
ANALYSIS Part of the "Reason success story" involves ReFills, which allow expanding Reason's sonic palette in various ways; after Soul School's success, a sequel seemed inevitable.
propellerheads.se

7
Focusrite
iTrack Solo
iPad/Mac/PC audio interface
$199.99
HIGHLIGHTS 2-input audio interface designed for recording instruments and vocals • up to 24-bit/96kHz performance • Focusrite mic pre as used in the Liquid Saffire 56 interface • phantom power • instrument input • unibody aluminum chassis • rear-panel phono connectors for connecting an audio playback system • zero-latency monitoring
TARGET MARKET Those needing a no-compromise iOS interface that's Mac/PC compatible
ANALYSIS As iOS devices gain traction thanks to apps like GarageBand and Auria, the need for better audio quality gains traction.
focusrite.com

8
Electro-Voice
ZX1-Sub
Subwoofer
$582.17
HIGHLIGHTS 12" EVS-12S woofer • ideal match for EVID, ZX1 and EVU compact loudspeaker systems • compact and lightweight • maximum SPL of 127dB • internally-braced 15mm plywood enclosure with a structured coating and integrated handles • two paralleled, recessed Speakon NL4 connectors • frequency response: 53–125Hz (–3 dB) • 400W continuous, 1,600W peak
TARGET MARKET Mobile applications and fixed installations
ANALYSIS Subwoofers are becoming increasingly important for all types of sound systems; the ZX1-Sub is comparatively light and compact, given its power-handling capacity.
electrovoice.com

LEARN



master class

Synth Secrets of the Pros

Fifteen production tips for studio, stage, and game audio

BY GINO ROBAIR

THERE COMES a point in everyone's career when a nugget of wisdom can help move you to the next level of creativity and technical expertise. However, it's often difficult to reach the top dogs in your field to get that tidbit of inspiration and advice.

For this article, I asked 12 professionals for tips on how to raise the quality of productions that use synthesizers and samplers. The suggestions I received cover a variety of situations—live performance, studio recording, film scoring, game-audio sound design—though many of the concepts can be adapted to any type of work.

Of course, some of these suggestions will take time to implement. But if you enjoy the process of making music, you'll find these tips to be a great way to personalize your favorite instrument and craft an individual sound.

Do It All with One Synth One process that has helped me achieve unique, refreshing sounds and productions is to exploit one instrument (analog or virtual; it doesn't matter) as much as I can. I sit down and force myself to compose an idea or song entirely with a single synth—no running to the "drum synth" for drums or to the "bass machine" for bass. This has allowed me to achieve more cohesive compositions and records, while at the same time helping me learn more about a specific instrument. I also love the limitations that such a process imposes: I definitely create more out of limitation than I do with endless options.
***—Alessandro Cortini**, composer/synthesis (Sonoic, Nine Inch Nails, blindoldfreak)*

It's in the Motion Probably the biggest problem I notice in synth productions is that the sounds don't "move." They may have perfect pitch, very even vibrato, or uniform attack times on all the notes, but if the performance is too consistent, the tracks will sound lifeless.

Try to find one parameter that you can tweak while recording a part. It might be the attack time on a lead sound that you make shorter and longer while you play, or brightness controlled with the filter, or waveform shifts. Manually change the setting as you go and choose a different parameter on each track. You'll get better-sounding music, which has greater depth and an interesting feel.
***—Brian Kehew**, author/musician/producer (Moog Cookbook, Air, The Who, Hole)*

Ambience on Lead Sounds A lot of times, people make the mistake of putting a lot of reverb on a solo line. If I have a lead sound—whether it's a synth, vocal, or a reed instrument—I'll use delay trails instead. Often, I use two different delays with different tap lengths—one panned to the left and one panned to the right. Not ping-pong reverb and not something that uses the same reverb tap, but a setup where each delay has its own recycling and feedback tap. That way, as the two channels echo with the solo voice, they stay separate from each other. The echoes blur, creating a silky trail that doesn't cloud up the mix like reverb and doesn't interfere with the timbre of the lead sound.
***—Robert Rich**, composer/synthesist*

Foreground and Background One of the big mistakes people make when creating electronic music is either putting everything into one ambient space or using no reverb whatsoever, thereby losing any sense of foreground and background. In my work, I tend to keep small sounds nearly dry and mixed into the left and right, while bigger sounds might have one really long reverb and are mixed further back and in the center. The reverb is panned wide, of course.

Usually I'll have just one short plate and one long hall. When using long hall settings in host-based plug-ins, I'll often put many of them in a bus. I'll use parallel and series reverbs to add complexity, but very small amounts of each, sometimes sending one into another so that the taps have greater density. By using small amounts of many reverbs, I can blur the character of them a little bit and make them more neutral.
***—Robert Rich**, composer/synthesist*

Build a Custom Sound Library In the game industry, I'm often in a situation when I need to write several cues in a fairly short amount of time—far less time than if I was working on a traditional recording. So I have come up with ways to arrive at a high level of production quickly.

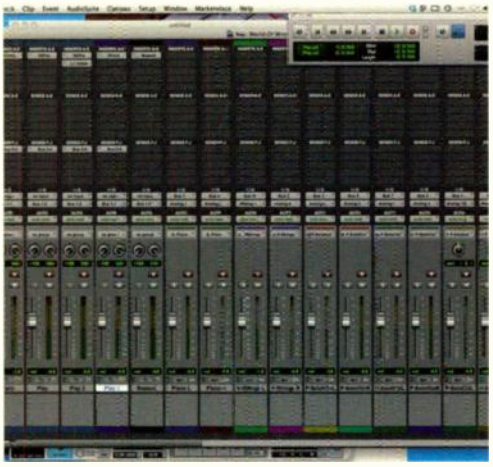


Fig. 1. Composer Steve Kirk renders his orchestral libraries by busing them to pairs of mono audio tracks in Pro Tools.

Fig. 2. Erik Norlander adds a bit of amplitude and filter modulation when he programs vibrato into his patches.

When there's a bit of downtime in my schedule, I will create my own soft-synth patches that are specifically categorized. I usually think in terms of a synth's impact on the final mix, so I categorize them in terms of where they'll sit in the mix: low/sub bass, low-mid bass (a bass that will be heard on laptop speakers/ear buds), mid-synth (usually this would be a featured sound, something that would take over the mix), and high-synths (usually used for color or flourishes). Having these patches organized in advance helps keep my momentum moving forward when I'm in a creative zone, rather than wasting time finding the right patch.

Composing with Orchestral Templates Using an orchestral template in your DAW can save you a lot of time and help sharpen up your productions by a large margin. I've created several orchestral templates based on different sample libraries that I use and the overall sound I want to achieve (bright and punchy, muted/moody, big room sound, a dry sound, etc.). Not only does this save time during the composition phase, but it helps you get deep into the sample libraries and the instrument articulations, making you a better composer. You can also set up all of your buses, sends, and reverbs in your template, so that you have a consistent sound across all of your cues.
***—Dren Mcdonald**, audio director, nerdtracks.com (Ghost Recon Commander, Skulls of the Shogun, Pettington Park)*

The Instrumental Choir You can create interesting polyphonic textures by multitracking monophonic instruments like we used to do years ago. I played my Clavioline on the recent Trey Anastasio project *Traveler*, and rather than just using it as a single-line instrument, I overdubbed it to create floating chords. I also toggled the filter switches rhythmically as I played each track, which resulted in a texture that is sonically pleasing but not readily identifiable. I also recorded a 3-part Theremin track for the album. Multitracking single lines like this gives you movement in the voices that you wouldn't get by playing a sample of these instruments polyphonically from a traditional keyboard controller.
***—Rob Schwimmer**, composer/pianist/thereminist (Polygraph Lounge, Paul Simon, Trey Anastasio)*

Three Tips for Better MIDI Orchestration
Take It Slow: Instead of trying to program "at tempo," slow everything down so that your performances will be captured accurately.

Velocity Editing: The heart and soul of how things sound within the MIDI environment is directly related to how velocities are edited. Making adjustments to these can have a profound effect on performance outcomes.

Premixing: Before you start programming, spend time premixing your MIDI sounds, particularly when working with strings. This will inspire performances. Don't wait until the end to mix. Mix as you go.
***—Gunnard Doboze**, documentary film composer (Saving Face, The September Tapes, Connected)*

Print MIDI Tracks to Gain Headroom To get more headroom and control over the final mix when working with orchestral libraries, I will print as many to audio as I can by bouncing them to a pair of pre-panned mono tracks and then creating an edit and mix group for them (see Figure 1). The stereo imaging and depth of field noticeably improves when I do

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this. And for my tastes, MIDI Volume control is clunky and is too coarse. I find that I have more control and get a more realistic sounding mix after I've recorded them as audio stems.

Bused from the instrument track in Pro Tools, I bounce them one section at a time by instrument type: violins as a one stereo pair; violas, cellos, and double bass as a dedicated stereo track; woodwinds, horns, and trumpets each get their own stereo track, as do solo instruments. I record them dry and add EQ and compression later, if needed. Then, I go down to the sample level and check for latency and make corrections if I need to by lining the audio up with the MIDI note in the Edit window. Occasionally, I may need to use MIDI Volume to help an instrument decrescendo correctly, but if the track is separated out, I can usually do that later.

*—**Steve Kirk**, composer/guitarist (FarmVille theme, Voodoo Vince, Star Wars: The Old Republic)*

Think Before You Pan Whether you're playing or engineering, you need to know where the part should sit in the stereo field. I don't pan very many things fully wide in the stereo spread. I save the last one-fifth at each edge for special things and ambience. Sometimes, a synth part wants to be out there. But just because it has a stereo output doesn't mean it should be panned hard left and hard right. If you just throw everything out there, you can end up with an indistinct wall.

I'm not a big fan of melodic elements being wide. Reverbs, drum overheads—always fully wide. The flanging on the background vocals, that's out there, but the BVs themselves usually aren't. Overall, be careful about what you place on the outside, because you can mask the cool stuff with sounds that do not need to be there. By not putting all the cake out there, it makes the effect clearer and has more impact when you just have icing at the edges.

*—**Richard Hilton**, engineer/keyboardist/programmer (Nile Rodgers and Chic)*

Modulate Filter and Amplitude When Creating Vibrato Moving the mod wheel or using aftertouch to induce vibrato—whether slow and acoustic-like or super-fast and '80s electronic-style—is a great way to give lead lines greater expression. Vibrato is, of course, pitch modulation. But in the real world, when you bend a guitar string up and down or slide back and forth on a violin string, the tone and volume change as well.

Add just a bit of filter modulation to subtly change the tone and a bit of amplitude modulation to subtly change the volume at the same rate, preferably from the same source LFO as the pitch modulation. This will give you more interesting and more life-like vibrato.

Fig. 3. Joe Guido Welsh will hard pan a synth sound, but with one channel out of phase in order to create unusual textures.

Fig. 4. Gary Chang in his personal studio with his Wiard modular synthesizer.

Process Your Effect Sends Whether in a synth or a DAW, you can give your effects a completely new character by pre-processing the Send. For example, using a send, put a distortion effect before a reverb effect. Now you can compress, soft clip, overdrive, and even aggressively distort the signal that is being sent to the reverb. This will make the reverb effect more dramatic and pronounced. Note that you're only distorting the send and not the dry sound itself, so your source will still sound clean and beautiful. Try adding chorus before a reverb or echo to make the effect "spin" a bit.

*—**Erik Norlander**, synthesist/composer/sound designer (Asia featuring John Payne, Big Noize)*

Tailor Your Sounds to the Situation It's important to fit your sound design approach to the gig, rather than sticking with whatever sounds good at home when you're programming. What I've learned from playing with a loud band is that things that sound really warm when you're programming will be too dark onstage. Take, for example, an electric piano sound that has a string patch behind it. The strings may sound warm and work great for a club gig that's at a low volume, but when I get onstage using that same sound with Santana, suddenly I can't hear the strings anymore; the electric piano drowns it out because the sound environment is very different. It's something to be aware of, so keep an open mind and be ready to be challenged when creating your sound palette.

*—**Dave Mathews**, keyboardist (Santana, Tower of Power, Etta James)*

Hard Pan Out of Phase Electronic sounds can sound sterile and dry, so I look for ways to add color and dynamics. By dynamics, I mean soft, subtle changes. Tape simulators work well in that regard, as do plug-ins like the SansAmp.

One trick that I do with my Buchla Music Easel, which works with any synth, is to pan a sound hard left and right, but put the signal in each speaker out of phase from the other. The result is unique but doesn't clutter the mix. Then I might add spatial modulation to move the signal from side to side, often using randomly generated CVs to make it unpredictable.

*—**Joe Guido Welsh**, writer/producer/multi-instrumentalist (Thelonious Moog)*

Modular Balancing Act When recording modular synths, noise becomes an issue. This is mainly due to the fact that they use a ton of patchcords and typically have unbalanced audio I/O, while most pro-audio interfaces are balanced. To address this issue, I use Cwejman AI-2 modules, which offer two channels of audio interface with unbalanced 3.5mm jacks on one end and XLRs on the other. This lets me patch to the modular right into a balanced patchbay so that I can digitally bus to it from Pro Tools. When more isolation is necessary, I will stick a Jensen Transformer DM2-2XX in the path, which transformer-isolates the signal.

*—**Gary Chang**, film composer/sound artist* ■

Gino Robair is a former editor of Electronic Musician.

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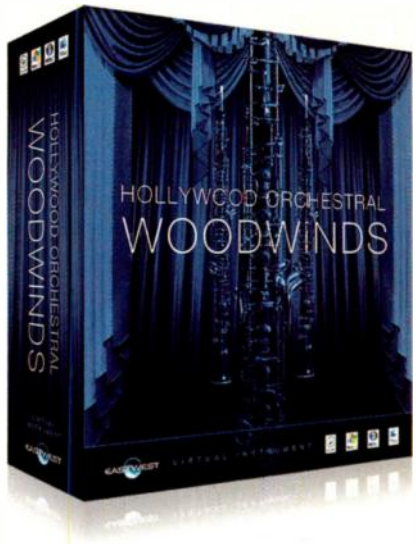

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Fig. 1. The Millennia Twin Direct TD-1 Music Recording System offers unequaled tone for recording guitar with amp sims.

Amp-Sim Strategies

Five tips for expanding your tonal palette

BY MICHAEL COOPER

GUITAR-AMP simulators allow you to record now and decide which tone you'll use later. But the choices you make when getting your guitar signal *into* your DAW in the first place can have a huge impact on just how boundless your amp sim's timbral range will be. Use these five tips to unshackle your *tone du jour*.

Select the Best Impedance It's common knowledge that plugging your guitar directly into the line input of your mixer or I/O box is a recipe for horribly dull tone. Plugging your guitar into such a low-impedance input will load your pickups, muffling their output.

For the highest-fidelity tone, plug your guitar into a direct (DI) box or a DI input on a mic preamp or channel strip. Generally speaking, the higher the DI's input impedance, the more sparkly the guitar tone will be. The Demeter VTDB-2b Tube Direct has a sky-high 27-megaohm input impedance; it sounds especially impressive on clean amp-sim presets for which extended high-frequency response is needed at the source. (The Tube Direct was the secret weapon Steve Lukather used to get clean guitar tones on Toto's albums.) DIs with a very low input impedance (1 megaohm or less) typically offer a softer, more muted sound.

The Millennia Twin Direct TD-1 Music Recording System—a mic/line/instrument recording channel featuring superb EQ and reamping facilities—offers variable input impedance (470 kilohms, 2 megaohm or 10 megaohm) for its DI input (see Figure 1).

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The TD-1 offers a smoother spectral balance and far greater realism, warmth, body, and depth than any dedicated DI box I've used. Consider the TD-1 a cure for thin, harsh amp-sim tone.

Stay Clean Most, but not all, dedicated DI boxes need their output signals boosted by a downstream mic preamp in order to present a 0 dBFS level to an I/O box and DAW. Use the cleanest mic pre at your disposal for this purpose. Let your amp sim add any desired color and grit. You can't take away distortion after it's been recorded, so don't box in your tone by using a grungy-sounding mic pre.

Starve Smartly Amp sims can sometimes sound thin and glassy—especially when using crunchy or overdriven presets—when their input level approaches 0 dB. To take the edge off harsh tone, feed the amp sim's input a weaker signal (as much as 10 dB down from 0 dBFS, if necessary). Then restore the diminished grit by boosting the amp sim's drive control.

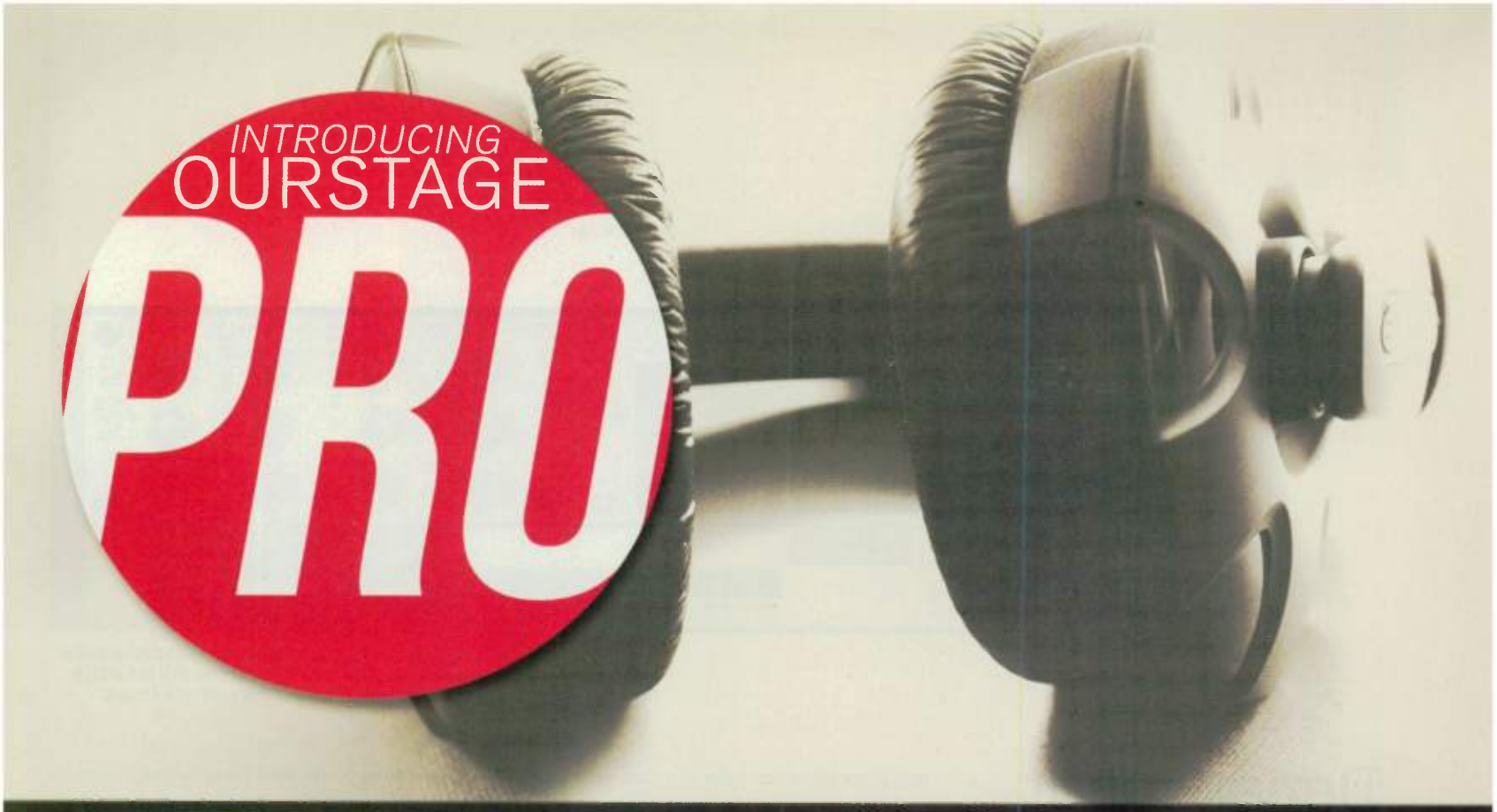
You can starve the amp sim's input in either of two ways: Lower the preamp gain feeding your A/D converter, or feed your A/D a full-scale signal and lower the amp sim's input-level control. The latter tack is often the best approach because it preserves your tonal options: Should you change your mind at mixdown and decide to use instead a clean preset—one which is less likely to need a starved input—you'll have a higher-fidelity full-scale signal to work with.

Amp Up Looking for an absolutely monstrous guitar tone? Try this: Record your guitar through an amplifier (using a microphone), set to the cleanest tone possible. Patch the guitar track through a crunchy or overdriven preset in your amp sim while recording. Make sure you've got your seatbelt fastened during playback, because the tone will blow you away!

Blend In This last tip is a bit off-topic in that it has nothing to do with getting your guitar signal into your DAW; still, it can have a profound effect on how your guitar sounds in the mix.

Overdriven guitar patches have an inherent drawback: They soften pick strikes so much that they can cause the guitar track to lose definition. Rather than reduce the glorious distortion that makes the track sound so wonderfully aggressive, blend in some of the original DI signal at mixdown. That tinkly, dry guitar—folded into the mix ever so slightly—will restore the sound of the guitar's pick strikes without weakening the blitz. ■

Michael Cooper is the owner of Michael Cooper Recording in Sisters, Oregon (myspace.com/michaelcooperrecording), and is a contributing editor for Mix *magazine.*



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Reason's MClass Equalizer isn't just for mastering; it can handle most corrective EQ needs for guitar. Note that the 20Hz Lo Cut filter is enabled to get rid of "mud" below the guitar's range.

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EQ tweaks for electric guitar

BY GINO ROBAIR

GUITARISTS ARE notorious tone snobs, although that's not necessarily a bad thing. Axe slingers are usually more than happy to find the right sound for the verse, chorus, or lead line; they will also be the first to tell you if a recording of their setup doesn't match what they hear in the room while playing. Yet, when it comes to recording and mixing, their tone becomes the domain of the recording engineer, whose job it is to make it work within a given project.

Mic Check The initial EQ stage comes from the microphone: It determines, by its design and physical placement, the timbre that gets recorded. So the first job is selecting the transducer and signal path that capture the sound as accurately as possible or as needed for the song. Remember that low frequencies provide a lot of energy. If the guitar sound has too much low end, it will increase the gain of the recorded track without providing as much usable tone. Mic choice and placement can help alleviate this issue.

It's common to use more than one mic on an amp, because it gives an engineer greater flexibility with the guitar tone when it comes time to mix. The trick for the engineer is to find a sound that the guitarist approves of and then fit it into the mix without compromising the original tone too much.

EQ To make it fit, the guitar tone might require corrective equalization. Sometimes you have to sweep the frequency control in a particular area to find the exact spot that needs attention. The boosts and cuts required will likely be subtle; 1 or 2 dB in either direction can work wonders. When applying EQ, be sure to listen to how the processing affects the entire mix.

Low End The situation is simplest when only one electric guitar is involved, say, in a trio with bass and drums. If the low-end needs help, subtly boost between 100 and 160Hz, being careful not to create a conflict with the frequencies of the bass. If there is competition in that frequency range, cutting a dB or two will often work. Got Mud? A slight reduction around 200Hz can help clear things up. Overdo it, and the sound will become wimpy.

Punch and Body There's a wide range of tonal shaping available between 500 and 800Hz, which translates to a range of about a minor 6th. Add body to the guitar tone by accentuating the lower part of this frequency range. Depending on the sound you're going for, a rise between 700 and 800Hz can make a track punchier.

This is also part of the frequency range where wah-wah pedals are focused, although wah frequencies can reach above 2kHz. So if you're looking to add a little of that cocked-wah sound, you're in the right neighborhood. Just make sure that the frequency boost doesn't cover or mask other instruments.

Upper Mids The range from 1 to 3kHz is a critical one for the electric guitar. A mix with too much energy in this area will sound harsh and is fatiguing to listen to. The guitar can be the culprit, potentially masking the sharp transient of the snare drum or the definition in the vocals. This is a good place to cut frequencies if your guitar tracks are overpowering. But don't cut too much or you'll hollow out the tone.

Sparkle vs. Noise Small boosts in the upper registers can accentuate the chime-like timbre of an instrument (8kHz and above) as well as add definition (4 to 5kHz). Sometimes you want to add a bit of "air" for a more modern sound, and this can be found around 10kHz and above. Listen carefully to boosts you make in the upper register, however, because you might increase noise created by effects processors. ■

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BY CRAIG ANDERTON

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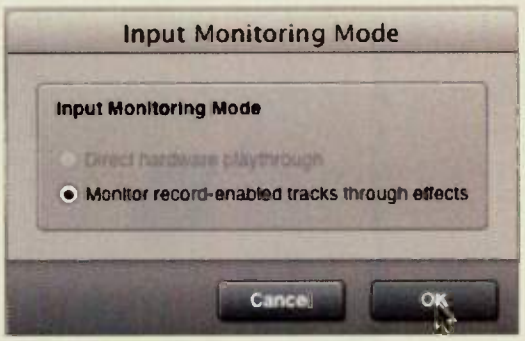
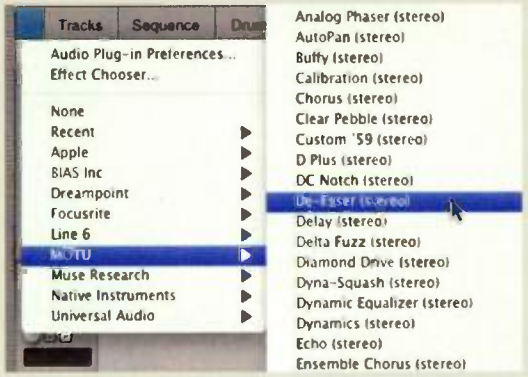
Since Version 7, DP has included some exceptional guitar-oriented plug-ins. Version 8 offers several more (the spring reverb is great), but it also has a de-esser; while not considered "guitar effects," de-essers can create a smoother, creamier tone with distorted sounds.

TIPS

- Step 1: As with all amp sims, make sure you're not overloading your interface's input.
- Step 2: If you have more than one distortion effect (*e.g.*, fuzz stompbox and distorting amp), experiment with placing the De-Esser before each one.



Step 1 Go to Setup > Configure Audio System > Input Monitoring Mode and make sure that "Monitor Record-Enabled Tracks through Effects" is checked.



Step 2 Assemble your "rack" of processors in the mixer channel inserts; place the De-Esser after any clean effects (*e.g.*, compression) but before any distortion effects.

Step 3 To start, adjust the De-Esser settings as shown. As you play, vary Freq for the smoothest sound (typically around 2–3kHz).

Step 4 To further tweak the Freq, click Key Listen to hear only the material triggering the De-Esser. Adjust Freq above the fundamentals of the guitar's notes; try to "catch" the range with the greatest amount of resonant, "whistling" sounds.

Step 5 De-Essing will make the signal a little less bright, so compensate with post-distortion modules (*e.g.*, Live Room G, as shown). Note that you'll be adding brightness to a richer distortion, not emphasizing unwanted artifacts.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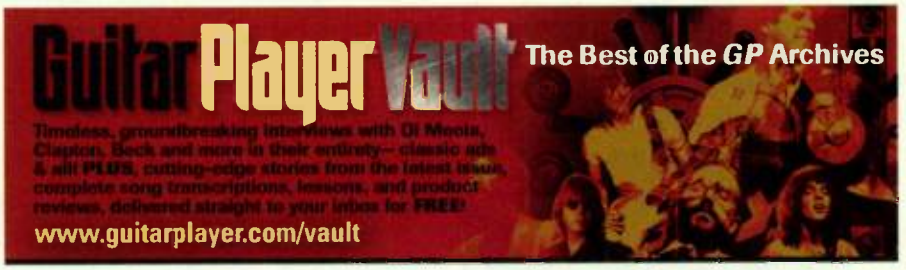

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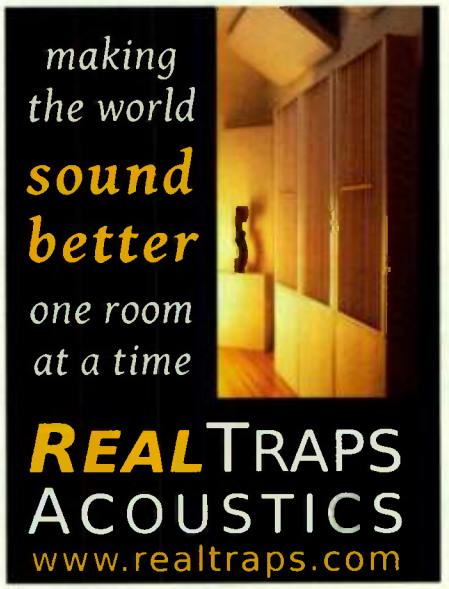

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Marketplace

Five Proven Ways to Get Publicity in 2013

BY CRAIG ANDERTON

SURE, the music business field has been leveled—but how to you rise above the noise? Notoriety! Check out these five sure-fire tips on how to become more famous, more faster. I mean, more fastly.

1

The public puke. Justin Bieber's stage-to-vomitorium extreme makeover doesn't count, nor does Lady Gaga's; they were already famous. Instead, look for inspiration from Swedish death metal band Nödvärn—type "Swedish death metal singer barf" into Google, and see how some well-timed reverse peristalsis can help launch *your* career.

2

Make wacky political statements. Look what believing their own press did for Hank Williams Jr., Rage Against the Machine, Kid Rock, Dave Mustaine, and of course, Madonna. Need further proof? If wacky political statements could revive Ted Nugent's comatose career, then it should be easy-peasy for you!

3

Die. True story: An artist on the same label as me was selling huge numbers of CDs in one particular store. The record company wondered why, and visited the store to investigate. Turned out his record had been misfiled in the "deceased rock stars" section next to Hendrix and Joplin. So he got the benefits of dying without having to actually die!

4

Join a cult. This is a tricky "time-release" strategy. *Joining* the cult won't make you famous, but *leaving* it and telling lurid tales on talk shows about how they believe that Drano is an aphrodisiac and aliens use TV to control our minds will do the trick. If that still doesn't get you any attention, say that they eat kittens.

5

Make *really* great music. There's nothing like original, innovative, soulful music that causes a deep emotional connection with your listeners to get you some well-deserved attention—although admittedly, not as much as puking, dying, babbling about a cult, or making wacky political statements.

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