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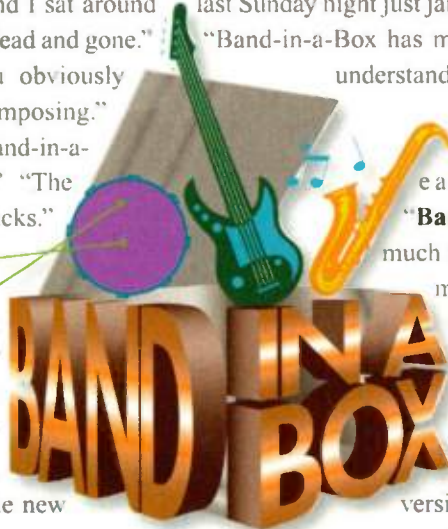
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insight

You Are the Media

AMANDA PALMER made headlines in May when she pulled in a half-million dollars in funding on Kickstarter in just four days. Her project—raising money to promote her new album—featured a video of Palmer standing in the street holding a series of handwritten cue cards laying out her goals, and rewarded donations at every level: For \$1, you could get an album download. For \$5,000, she would play at your house.

For Palmer, long seen as a trailblazing artist who has defied traditional label models and artist roles, this Kickstarter accomplishment is a culmination of years of using social media to cultivate a deep personal connection with her fans. She answers their tweets. She asks their opinions. She's *human*.

Creative fan engagement works both ways: Fans feel like they're a part of something big, and you have a support system that will help you thrive as an artist—which is crucial

for any entrepreneurial musician.

You are the face of your art. As Palmer told us in an interview last September, "that line between the art and putting out the art becomes increasingly more blurry as time marches on." She went on to emphasize that you need to understand what is unique about you, and how that will resonate with fans: "Have some perspective on what your life actually is, as viewed by other people."

In Palmer's Kickstarter video, she holds up a card that reads, "We are the media." Are you?



SARAH JONES
EDITOR
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COMMUNITY

"IF I WAS CONCERNED ABOUT MY LEGACY, THERE'S NO WAY I WOULD EVER SIT THERE [AND BE A REALITY-SHOW JUDGE]. ONCE YOUR CAREER BECOMES ABOUT SOMETHING OTHER THAN THE MUSIC, THEN THAT'S WHAT IT IS. I'LL NEVER MAKE THAT MISTAKE. I DON'T CARE IF I FKING STARVE."**

Eric Church discussing music "reality" competitions in *Rolling Stone*, April 2012

The Electronic Musician Poll

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- SWITCHING COMPUTER PLATFORMS **12%**
- VIRTUALLY NOTHING WOULD MAKE ME SWITCH **29%**

YOUR TAKE

How do you optimize your mixes for real-world listening scenarios?

Here's our favorite response. John McKay wins a pair of IsoAcoustics speaker stands. Thanks, John!

HERE'S MY tip for making sure a mix will translate. The low end is where most translation issues start, so to fix that, we'll get our mix up and sounding good. Then, put a HPF set to about 500Hz on the master bus. Adjust the kick, bass, and any other instruments with a lot of low end so that they sound good and audible with the low end chopped off. Now, start to lower the cutoff frequency.

As you bring the frequency lower, the bass, kick, etc. may start to sound too loud. When they do, stop adjusting the frequency, and roll out some low mids from the kick or whatever is too loud. Be careful not to touch anything above 500Hz! Once you have the bass under control again, start lowering the frequency again. This time, when things get too loud, adjust the frequencies between the new cutoff and the place it was at the last time you stopped. Repeat this process until you get all the way down to 20Hz or wherever you can't hear any changes any more. Leaving the HPF on to cut frequencies below 25Hz or so is okay, especially if you're not going to have the mix mastered. Try it, it works!

JOHN MCKAY

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THIS MONTH'S QUESTION: **DJs: WHAT'S YOUR BEST MIXING TRICK?**

Send your answers to ElectronicMusician@musicplayer.com.

ask!

I'M BUYING A NEW WINDOWS COMPUTER, AND CONSIDERING GOING 64-BIT. HOWEVER, A LOT OF MY PLUG-INS ARE 32-BIT, AND I DON'T WANT TO LOSE THEM. I ALSO USE REWIRE A LOT. I HEAR THAT "BRIDGING" 32-BIT PLUG-INS TO WORK IN 64-BIT ENVIRONMENTS IS IFFY, BUT I ALSO SEE THAT MORE PLUG-INS ARE GOING 64-BIT. IS 64-BIT READY FOR PRIME TIME OR SHOULD I WAIT?

MIRIAM MARTIN
SAN ANTONIO, TX
VIA EMAIL



You might be surprised by how easy it is to blend the 64- and 32-bit worlds. Although you didn't mention your DAW, if it doesn't already include a bridge, check out BitBridge or jBridge. Bridging

is an interim technology, but it works well and your 32-bit plug-ins will likely work just fine—even when they're not supposed to! One manufacturer told us there was absolutely no way their 32-bit plug-in could work

A 64-bit operating system can take advantage of much more RAM than a 32-bit version—there are 32GB in this PC Audio Labs computer. The window inset at left shows part of Sonar's Plug-In Manager; Sonar includes BitBridge to load 32-bit plug-ins, but can also "wrap" plug-ins using jBridge.

with a 64-bit host, but when we installed it as an XP plug-in using Windows' compatibility mode, it bridged perfectly with 64-bit hosts. ReWire is now 64-bit, and more companies are developing 64-bit plug-ins, so the momentum is building. Most hosts and plug-ins let you

install 32- and 64-bit versions if both are available. (The 32-bit versions go in the x86 Program Files folder.) Use the 32-bit host but experiment with the 64-bit one; when everything works and is stable in 64-bit mode, make the switch.

THE EDITORS

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





RADIOHEAD ROCKS THE BAY

SAN JOSE, CA
APRIL 24, 2012

It's sometimes said that Radiohead is best experienced live, when they take their musical experimentation to a whole new level. The band's recent Bay Area stop was no exception: At San Jose's HP Pavilion, they mesmerized the sold-out crowd with a 25-song set that drew from two decades of work, focusing heavily on their recent release, *King of Limbs*. All night long, a jumping and twitching Thom Yorke (center) shook his limbs below a stunning array of shifting video screens, before a luminous wall constructed from recycled plastic bottles—20,000 fans singing and dancing along with every move.

PHOTOGRAPH BY DAVE VANN

GO



GOSSIP

With their rhythm-and-vocal foundation locked and loaded, Portland's disco-punk trio goes on a creative bender

BY KYLEE SWENSON GORDON

THE MEMBERS of Gossip couldn't have predicted that they'd evolve from a lo-fi punk/garage band playing basement parties in Olympia, WA, to headlining festivals, selling millions of albums, and making their fifth record—*A Joyful Noise* [Columbia]—with U.K.-based pop producer Brian Higgins (Kylie Minogue, Pet Shop Boys). But over the course of 13 years together, Gossip has done just that, moving up the ranks with their dynamic punk-rock-and-soul sound while expanding into dancier disco-pop territory.

One thing that has remained tight from the early days is Gossip's relationship between bass, drums, and Beth's Ditto's purr-to-scream vocals. Singer Ditto and multi-instrumentalist Nathan Howdeshell met in Searcy, AR, and then moved to Olympia with then-drummer Kathy Mendonca. In late 2003, after releasing a couple EPs and full-length albums and touring with the likes of Sleater-Kinney, Mendonca departed and drummer Hannah Blilie took her place. Since then, the members of Gossip have had a laser focus on the core foundation of each song they write.

While many bands seek out guitar and synth hooks from the get-go, Gossip won't move forward with an idea until the rhythm section is locked. "Hanna and Nathan were just made to play with each other," says Higgins from his Xenomania studio in Kent, England. "Amazing how they found each other. When they're focused and everything's fantastic, they can really make things sound awesome with just bass, drums, and vocals."

The Perfect Foundation Much of *A Joyful Noise* was produced at Xenomania, but it all began at Gossip's warehouse space in Portland, OR. Preparing to write new songs,

Gossip (left to right)—Hannah Blilie, Beth Ditto, and Nathan Howdeshell.

Ditto allegedly spent a year listening to ABBA and avoiding the radio. With Swedish disco-pop on the brain, Ditto, Howdeshell, and Blilie recorded jam sessions in Garageband and then picked the parts they wanted to pursue further. “There was a rawness to a lot of the original demo ideas that was very exciting,” Higgins says. “Nathan has a very good ear for sounds, particularly on synthesizers.”

But before synth parts entered the fray, songs often started with a spontaneous vocal melody or bass line. When this *Electronic Musician* writer last interviewed Gossip in 2009 for their album *Music For Men* (*EQ* magazine, November 2009), Ditto said, “Even as a kid, my sister would be like, ‘Oh my God, if you don’t stop singing, I’m going to kill you!’ There’s always something going on in my head, like, always.”

So when Howdeshell anticipates an oncoming storm of Ditto’s ideas, he reaches for his bass. Such was the case for the epic and catchy “Perfect World.” And if the bass comes first, Ditto is quick to respond. She and Howdeshell wrote “Get a Job”—a song very reminiscent of a recent Gossip collaborator, electro-dance act Simian Mobile Disco—in a hotel room. “It started with the bass line, and she just sang that lyric over it,” Howdeshell says.

Although Howdeshell is most comfortable starting with bass, he realized that approaching a song rhythm-first would also keep things wide open for the vocal. “I think the rhythm of a song can really determine the vibe,” he says. “Whenever we work on something, I try to give Beth an idea of all the space she can have because that’s when a song can really come alive. Some people just keep adding and adding [parts], and it’s like the song’s done, but what about the vocals?”

So rather than boxing in the voice and forcing it to navigate within the limits of guitar and synth layers already set in stone, Howdeshell keeps it simple and maintains restraint. “The voice is the magical instrument,” he says. “You can have all of the players in the world together, but if the vocals are bad, then I’m not going to really be interested. All you need are three solid [bass] notes, and you can build around the vocals after that.”

Changing Keys Higgins agrees wholeheartedly that vocals are the number-one priority, and his first reaction to Gossip’s demos was somewhat surprising to the band. “A number

**“I find that when a singer sings a song for the first time and then revisits it later, something’s replaced by overconfidence, and the nuance of the vocal often disappears.”
—producer Brian Higgins**

of the songs weren’t in the right key for the vocal,” he reveals. “The one thing you’ve got to get right is a good vocal. And sometimes if the key in a particular performance isn’t particularly sympathetic to that, then it’s worth taking a second just to check if you could get a better performance elsewhere.”

To illustrate his point, Higgins asked Nathan to give him instrumentals of the tracks. Higgins then pitched them down a semitone and got Ditto to sing rough takes of the songs again. “Five or six of those performances were better a semitone lower, and five or six of them I kept them the same,” he says. “I think we got a better performance in a slightly more comfortable key for her a semitone lower. Some of the keys were right on her break, and I could sense that when she went into some of the higher notes, there was a discomfort there for her.”

While some producers or vocal coaches prefer to work with a singer to push from chest voice to head voice, Higgins doesn’t see that as the solution: “Rather than saying, ‘Well, that’s just the way that it is,’ I thought, ‘Well, no, that’s not the way that it is. You’ve got to get the best possible vocal performance if you want to make a great record. That means the

vocals must never be compromised.’ If there are 12 keys, there has to be one where the performance is better than all the other 11.”

At KBC Studios in Portland, Higgins pumped Ditto’s a cappella vocal (in the correct key) into headphones and had Blilie and Howdeshell play along in the live room. “The general policy was that we wouldn’t move on until just vocals, bass, and drums sounded amazing,” Higgins says.

Recording vocals first had the technical advantage of saving Higgins time in the mixing process. “As a result of doing vocal tests before I did anything else and having Nathan and Hanna play to that, it meant that if the snare didn’t sound right against the vocal, we could get rid of that snare and use a new one,” he says. “And if the strings on the bass didn’t sound right, we could use new ones. At the end, we were so happy because we had this fantastic performance from Nathan and Hannah as a rhythm unit, against a vocal that we knew was in the best key for the singer, using sounds that already we knew worked with her voice. So we knew that when the records came to be mixed, there wouldn’t be that much need for EQ. Everything was fitting there and then.”

Ditto recorded more vocals later in the production process, but Higgins kept many of the “scratch” takes. “The original takes are always the best in my view because they capture that sort of human quality,” Higgins says. “I find that when a singer sings a song for the first time and then revisits it later, something’s replaced by overconfidence, and the nuance of the vocal often disappears. We were able capture that nuance with Beth in a very excited two-day period in Portland.”

Higgins’s right-hand man, engineer Toby Scott, remembers testing three mics simultaneously in the Portland sessions to see which one suited her best: a vintage AKG C 12, a Shure SM7, and a re-conditioned Neumann U 47. “We settled on the U 47 going into the Neve 1073, then to the Teletronix LA-2A,” Scott says. “In the U.K. we used a mixture of the Blue Kiwi and Manley Gold mics, both going into 1073 preamps. We also used software compression, multi-band compression, EQ, reverb, and filtered stereo delay on her voice. Getting Beth’s voice to gel was easy, as both the instrumentation—bass sound, snare selection, etc.—and playing style were centered around how they sounded against Beth’s vocal.”

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Beats The haunting opener, “Casualties of War,” was partly inspired by a very different kind of love song, “Histoire de Melody Nelson” by Serge Gainsbourg. “I was obsessed with that song, and about 12 years ago, a famous bass player named Herbie Flowers came to visit me. He sits down and he gets this old blue Fender Jazz bass that’s clearly ancient. Turns out he’d had it since 1958. So we plug him in, and it’s got these black nylon strings on it. He hits the bass, and I said, ‘God, doesn’t that sound like the bass sound on “Histoire de Melody Nelson”?’ And he said, ‘Well, I played the bass on that song.’”

Fast forward years later to Howdeshell sitting in the studio with his Fender Precision bass, recording his part for “Casualties of War.” “He was playing with these heavily wound strings, and it just seemed very aggressive against Beth’s vocal,” Higgins says. “He was us-

ing a pick, which was the right thing to do, but it just sounded weird. So we just asked Toby to see if there were any other strings around. He held up a pair of nylon ones. I thought about ‘Histoire de Melody Nelson,’ a record about seduction, and how ‘Casualties of War’ is a love song with a vaguely French sort of aspect to it, and I said, ‘That’ll work!’”


To further finesse the song, Scott tapped the Waves RBass plug-in “to add weight to bass and kick sounds” and used the Logic gate on the bass amp—sidechained from the bass DI—to make the amp noise present only where necessary. “On ‘Casualties of War,’ we experimented with the gate’s release times on the bass amp, which, once compressed with the DI signal, produced an interesting pumping amp-noise effect after each bass note,” he says.

In terms of Howdeshell’s guitar style, these days it’s funkier and more in line with disco: “It’s

kind of like sprinkling all over the bass.” A fan of Gibson SGs and Firebirds “because they can take a beating on the road,” he says, Howdeshell plays guitar at live shows and gives up bass duties to Chris Dutton and synths to Katie Davidson.

Howdeshell’s guitar pedalboard is simple. “I use an [Ibanez] Tube Screamer, which doesn’t completely distort the guitar—you can still hear the strings,” he says. “I also have a Boss Digital Delay, which I use for a really short slapback delay on pretty much every song. And for reverb, sometimes I’ll turn it up my Holy Grail superloud so that everything turns into a wash.”

Other effects were achieved more organically, such as miking up the guitar strings on his electric to get a plucky attack on “Casualties of War.” “We placed the Neumann U 47 quite close to the electric guitar strings while Nathan jammed some ideas,” Scott explains. “The Neumann went to a Neve 1073 and



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then to a UA 1176. The amped guitar went through an API 3124. Then we mixed in the compressed mic feed to add some extra fret sound." Scott also used Waves Renaissance plug-ins, such as the RComp and REQ to augment the guitar sounds. And he bussed guitars together, panned them, and widened the stereo image with the Waves S1 plug-in. He also used the Logic stereo delay to add distance to vocals and guitar.

Ampwise, Howdeshell bounced around from a '60s Vox AC30, Fender Twin, Fender Blues Junior, and Orange amp. "We always took the dry signal of the guitar so we could send back through another amp if, for instance, Brian wanted to try the same part but with a more driven amp sound," Scott says. "On occasion we tried sending the amped sig-

nal back through an amp a second time if we wanted an especially distorted sound." And in addition to guitar, Scott also amped up Moog Minimoog and Korg microKORG synths.

Blilie's main drum kit was a vintage Ludwig with a Ludwig Superphonic snare, but Scott and Portland engineer Jeremy Sherrer occasionally swapped in 1950s Leedy or Noble & Cooley snares. "It was interesting seeing what sound we could get from using only a few microphones on the drum kit," Scott says. "It encouraged us to make the best of what we had and lent itself to a more vintage drum sound."

Quick Ears One of the most exciting parts of recording *A Joyful Noise* was the speed at which Howdeshell and Higgins burned

through ideas. "Generally, I do believe that rule: If it takes longer than 10 minutes to figure it out, don't do it," Howdeshell says. "We generally know what we want right away."

Higgins had to be on point to keep up with Howdeshell. "Nathan is a very spontaneous guy in a musician's sense," he says. "He's one of those guys who comes up with a great idea, but if you don't capture it, he wouldn't remember to play it again. I love musicians like that because you get something unique, and just the way they hit something is special. But you did need to capture everything, and capturing everything is fine as long as you're interested in enough to do the editing."

Understanding that Howdeshell's creative mind would work well with constant stimulation, Higgins put a new keyboard or instrument in front of him, one after the other, and gave him a minute or two with each one, including Moog Minimoog, Roland Juno-60, Juno-106, and Jupiter-6 keyboards. "Everyday I would get him to play with electronics, guitars, pads, drum machines, loops, and anything just to fire his imagination," Higgins says.

Higgins and Howdeshell also had a fun time messing around with a Korg KAOS Pad and stumbled upon some interesting rhythm parts. "Eventually you get that perfect moment where everything collides at the same time," Higgins says. "Out of absolute nonsense, suddenly something amazing would come." The guys also brought DJ duo Jbag (Jerry Bouthier and Andrea Gorgerino) into the studio to add some old-school house flavor on a few tracks.

Whittling it Down At 7 every morning, Higgins would get up and listen to Howdeshell's impromptu ideas and highlight the ones he wanted to work on in the next session that day. "Because we captured every jam and experiment, we could then listen back and Brian would pick out the moment when the collision of riff and effect was perfect," Scott says.

Working in Apple Logic, Higgins cut up each part of each song into eight-bar sections and had Scott put them into an iTunes playlist so they could listen and decide which ideas worked best for each song. "All the ideas would be coded in such a way that we could instantly retrieve the exact section of the jam idea and slot it into the working mix," Scott says. "Once the ideas were im-



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ported into the session, we could develop and improve upon them with the band. That way, only the best ideas were developed. It turned out to be an incredibly efficient way of whittling the ideas down."

It had to be efficient because the ideas numbered into the thousands. "My computer's got 9,975 eight-bar sections on it, which make up the Gossip album," Higgins says with a laugh. "I looked at that the other day: 9,975 ideas that we edited down. So all you do is you comp and you comp, and you keep hacking it down and comparing things in iTunes, and eventually you're left with five overdubs that could go in the verse, for example. Once I've got a final four or five things that I really love, I then import them back into the session and make final arrangement decisions."

For some musicians, that process of viciously slashing and burning ideas would be painful. But that's not the case for Howdeshell. "I personally never get attached to anything I write," he says nonchalantly. "I'm totally fine with letting everything go that has to. We write

things so quickly that there's always going to be another option."

Although mixing engineer Rich Costey mixed a handful of the tracks on the album, Higgins is adamant that he wouldn't hand off a track to an external mixer unless he was completely satisfied with his own mix first. "Rich respected our monitor mixes, so they all came back sounding 15 to 20 percent better, which is what you want," Higgins says. "But you don't want to be saying, 'Where's the rhythm guitar in the bridge?'" If you don't have a monitor mix that you as a producer thinks is amazing, then you're giving the mixer no map."

Higgins' own mixing style is less pristine and more about attaining a level of excitement. "I'm looking for a dynamic punch as opposed to a stereo spread," he says. "My mixes are quite boxy, quite gritty. They're trying to be like punk records, really. They're fairly unsophisticated; the sophistication is in the playing and in the ideas.

"I think when you go to someone externally, what can happen is they can rinse the vibe out of it. They place everything in the stereo spectrum exactly where it needs to be, they clear

out noise, and they move the vocals around right-left-and-center to get things minutely in time—all the things that I've deliberately left. And then you don't recognize the record anymore because any essence of a vibe-ness has been taken out of it. Then you have to spend time making them put it back in so you can get a balance between something that would sound great on the radio and something that would retain the original integrity. Sometimes what is "correct" from a sonic perspective is not the way in which the idea was constructed, and therefore you lose something in that." ■

*Kylee Swenson Gordon is a writer, editor, and musician based in Oakland, CA. Her first book, **Electronic Musician Presents the Recording Secrets Behind 50 Great Albums**, comes out this month.*



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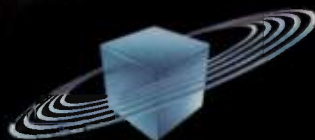


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A photograph of a musician with long, wavy brown hair and sunglasses, wearing a white and black striped shirt. He is playing a guitar on a stage. The background is a bright blue sky with some stage equipment visible. The title 'Dynamics, Demystified' is overlaid in large white text with a drop shadow.

Dynamics, Demystified

Learn compression, limiting, expansion, and gating techniques to create a better experience for your audience

BY STEVE LA CERRA

DYNAMICS ARE essential in adding expressiveness to music, but excessive or inconsistent dynamics can be the bane of live performance. Vocals, bass, kick, and snare are the usual suspects for dynamics control in live applications, but any instrument producing inconsistent levels can benefit from dynamics compression.

Compression usually patches into a channel insert, and by dedicating it to one signal you can optimize its settings for that signal. In the analog world, that means you'll need a separate hardware compressor for every channel, although stereo compressors can usually work as dual-mono processors (Figure 1). In the digital or software-based console world you'll often find dedicated dynamics per channel (compressor and gate) or you can use multiple instances of a single plug-in (Figure 2). Regardless, insert any compressor pre-fader. Software-based



Fig. 1. The JDK Audio R22 compressor is stereo, but like most stereo dynamics processors, offers separate I/O for the two channels so it can be used as a dual-mono unit. The R22 has both XLR and 1/4" I/O, making it easy to patch into an insert, between a signal source and mixer with XLR ins, or to compress the overall output on a mixer with XLR outs.

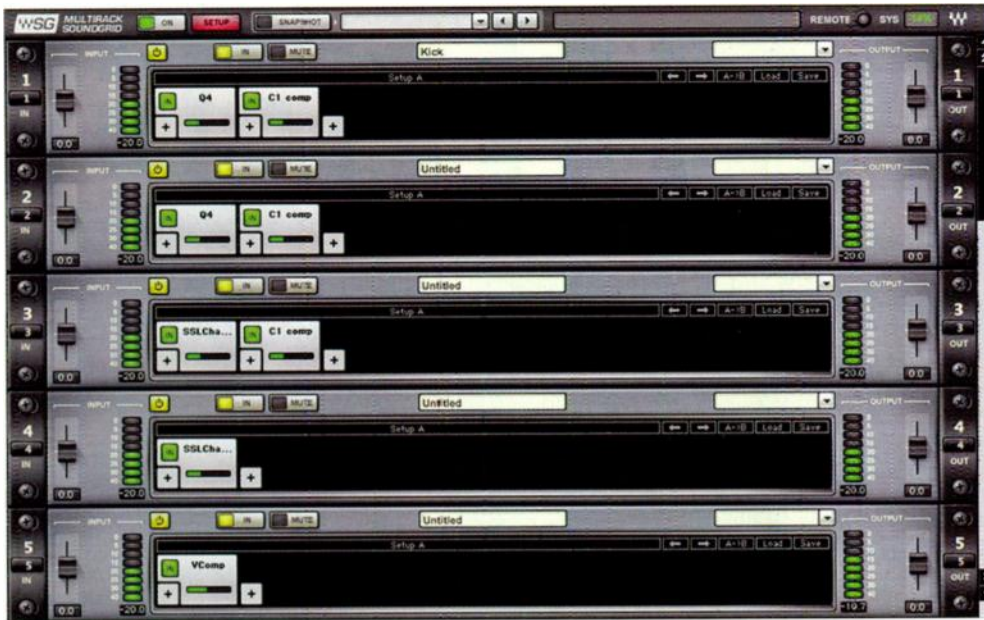


Fig. 2. WavesLive MultiRack Buy MultiRack Native is a plug-in platform designed specifically for live sound. Although used by a lot of the major tours, the concept is equally applicable to smaller bands—if not more so, due to the compact and predictable nature of setup.

bring the threshold way down to get any compression and you'll have to crank the output gain, adding noise.

Don't Squash the Lead Singer When compressing a lead vocal, start with a ratio of 3:1 or 4:1, medium-fast attack time (30 ms), and medium release time (100 ms). Set the threshold for 1 or 2dB of gain reduction whenever the vocalist sings. When the singer gets louder, the compressor should start reducing gain and smooth out the variations. If not, then lower the threshold, make the attack time faster, and/or increase the ratio. Slow attack times work well with singers who have mellow voices, or voices that don't cut through the mix easily. That's because a fast attack grabs transients, resulting in a loss of high frequencies. Slow the attack time to reduce this. On the other hand, a fast attack can tame a bright or shrill voice, allowing you to make it louder without it becoming overbearing. High compression ratios (e.g., 6:1, 8:1, or even higher) combined with overly fast attack and release times will emphasize lip smacks and breath noise, resulting in a compression artifact called *breathing*. Longer release times help reduce breathing.

What happens when a vocalist does *not* sing into their vocal microphone is almost as important as what happens when they *do*. Suppose you have 6 to 8dB of gain reduction on the vocal. When the singing stops, the signal drops below threshold and as there's no longer any gain reduction, the gain comes back up to normal. This is akin to someone turning up the channel fader. Now envision a drum kit behind the lead singer—the vocal mic has turned into a mic for the drum kit. To avoid this issue, eyeball the gain reduction meter while the singer is not singing. You should see little or no gain reduction. If you see more than a few dB of gain reduction, raise the threshold to avoid compressing the background sounds. Beware of applying excessive compression to a vocal mic in small, lively rooms because when the

mixers may provide the option to place the compressor either pre- or post-fader; inserts on most hardware mixers are pre-fader. If you insert the compressor post-fader, every time you vary the channel fader the dynamics (pun intended) of the compressor change. Not good. With the compressor patched pre-fader you can set a threshold based on the sound arriving at the mic—and not your manipulation of the fader.

Certain hardware compressors (and gates) feature a rear-panel operating level switch (+4/-10), ensuring proper level-matching with your console. Consult the specs to determine the operating level of the mixer's inserts. If you set the compressor to -10 and the console insert operates at +4 you'll get too much compression (even when the compressor's threshold is all the way up) and the compressor's input will overload easily. If the comp is at +4 and the console insert is at -10, you'll need to

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Fig. 3. Universal Audio's 1176LN compressor has been a staple of drum sounds since the 1970s; the 2-1176 builds on UA's 6176 Channel Strip and combines two 1176 channels from that unit. The 2-1176 can be used as a stereo or dual mono compressor.



Fig. 4. Radial Engineering's Komit brings a compressor/limiter to the compact 500 Series format. In this device the limiter is designed to offer some "character" via diode clipping.

vocal stops and the compressor "lets go," the mic gain comes up—inviting feedback.

Slappin' the Bass DI'd bass guitar is arguably the instrument most in need of compression. Attack and release times relate to the style of playing, and (to a lesser extent) song tempo. A fast attack (5 ms) ensures that the compressor does not miss the transients on slapping, but this setting can reduce some of the definition from finger picks, and when combined with very fast release times can cause distortion. Lengthening attack and release times avoids distortion as well as *pumping*, a compression artifact that occurs when the release is too short for the note's decay. Pumping causes the note to get *louder* as it decays instead of fading out—a very unnatural sound. Try to set the release as long as the sound lasts and no longer (as you'll hear in the online sound clips). Apply compression conservatively to a mic'ed bass amp because it might create a feedback loop between the P.A. and this mic, for reasons similar to those discussed earlier regarding vocals.

Compressing kick and snare helps the drum kit maintain a solid place in the mix (Figure 3). As gates are also typically used on drums, the question arises, "which comes first, the comp or the gate?" Answer: the gate. Compressing first reduces the dynamic range of the signal entering the microphone—making the (unwanted) leakage closer in level to the desired signal, and therefore more difficult to remove with a gate. Gating first ensures that only the signal you really *want*

reaches the compressor, providing you with a huge amount of sonic control.

Compression can kill a kick or snare sound, so use your ears. Super-fast attack times (0 to 10 ms) can actually remove a snare hit's attack, while slow attack times may miss the hit entirely. Fast attack combined with a fast release time can cause distortion (though you might like it!) and emphasize room ambience and the ring of the drum. Make the release longer to quiet the room "noise." The latter settings with a hard-driven input, combined with a high ratio, can turn your snare into an industrial clang (check out the snare examples online). For a more subtle approach, set the ratio to 2:1 or 3:1, set the release to about 120 ms, and attack to around 15 ms. If you're not getting enough gain reduction, either make the attack a bit faster or lower the threshold. When the attack is just right you'll get a nice "thwap" (that's a technical term that indicates the amount of thwappness).

A kick drum's low-frequency content adds power to a mix, but also makes it challenging to wrestle into a mix. This is especially problematic with inconsistent drummers. A small amount of compression goes a long way to even out variations: try a ratio of 2:1 or 3:1, with medium attack and release times, when you're getting 4–6dB of gain reduction. Too much compression causes a kick drum to sound "small" by reducing the apparent amount of low end. Fast attack and fast release emphasizes the drum's resonance, causing the low end of an undamped kick drum to sound sloppy (though it could be useful if you're trying to recreate a TR-808-type "hum drum" sound). As with a snare, excessively long attack and short release times will cause the compressor to miss the sound of the drum entirely.

You Got Protection? A limiter is a special-purpose compressor with a high ratio (10:1 or higher) and a very fast attack time. Limiting puts a ceiling on signal level, keeping it from exceeding a maximum level (Figure 4). If that's your goal, set a compression ratio of 10:1 or 15:1, attack as fast as possible, and a medium

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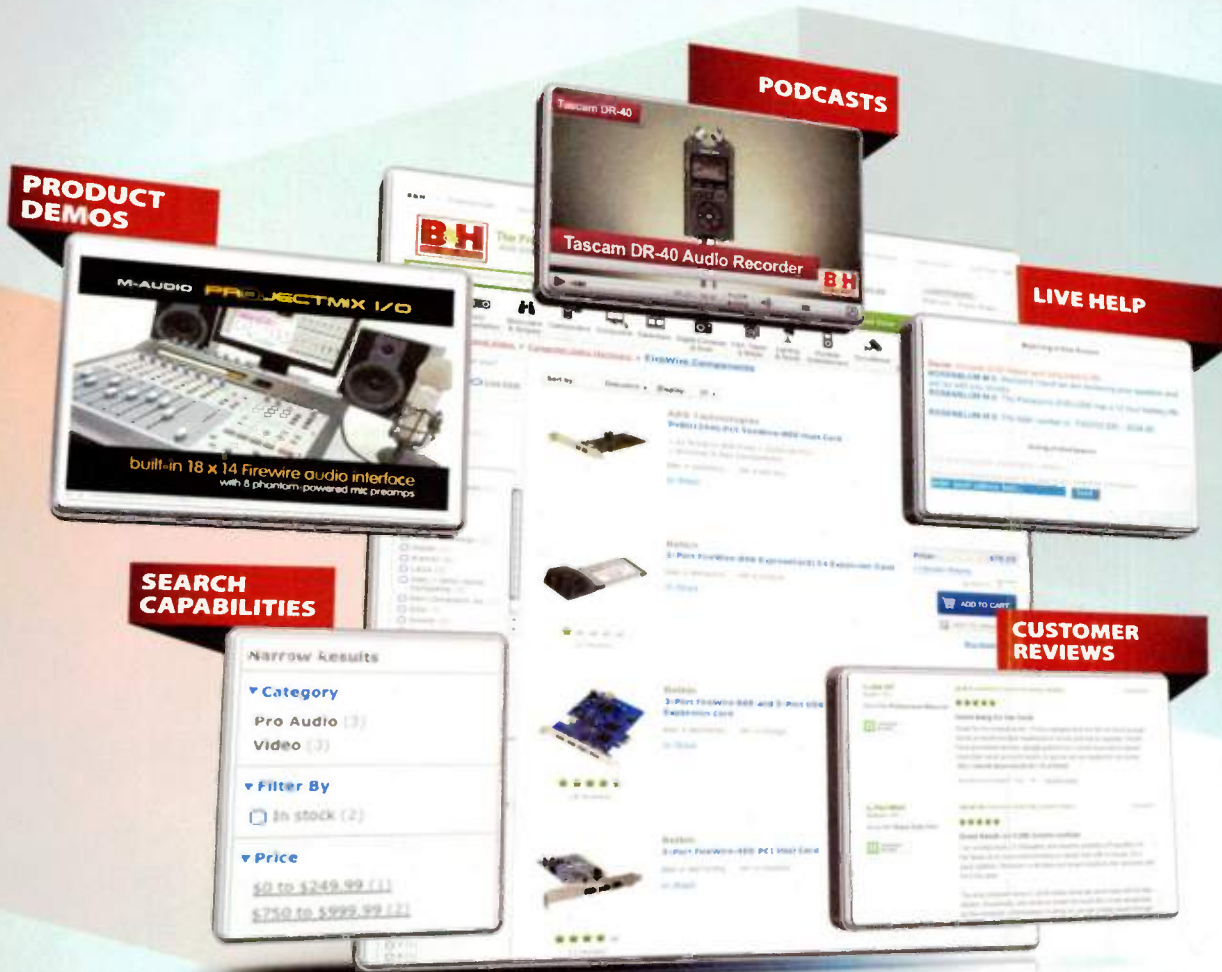
Rapper Talib Kweli and singer Res discuss defying musical definitions, and the ten-year collaboration that culminated in *Habits of the Heart*

BY TONY WARE

FRIENDS AND collaborators since 2000, Talib Kweli and Res launched their Idle Warship project in 2009 as a vehicle to explore styles, topics, and characters independent of any preconceived notions of what's appropriate for a conscious MC and a neo-soul singer, respectively. Following several years of online drops, the duo has compiled *Habits of the Heart*, Idle Warship's debut full-length. Featuring contributions from producers Farhot, Max Drumme, DJ Khalil, M-Phazes, and Steve Mckie, as well as collaboration with artists and musicians including Jean Grae, Jay Knocka, Chester French, John Forte, Kay Cola, Michelle Williams, bassists Brady Watt and Brian Cockerham, keyboardist Masayuki Hirano, drummer Daru Jones, and guitarist John Cave, the jazzy robofunk honors no one musical deity. Featuring fluid Res-heavy verses and an MC's ear for air-pushing arrangements, *Habits of the Heart* balances bang and flow. Here, the project's partners discuss its assembly.

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Idle Warship—Talib Kweli (left) and Res

How did you initially conceive Idle Warship?

Talib Kweli: [Res and I] have been working on music together for a long time. And I think we have sounds that really came to complement one another. So we got to a point four years ago where we were both frustrated with the industry and how hard it was for artists like ourselves, who struggle to not be defined, to come to terms with how people were starting to define us. So we started Idle Warship to wrestle our definitions back from public perceptions.

You've said you do not consider the project to be hip-hop. If you're taking back the definition, what's the best classification?

Kweli: I just don't think it can be defined. It's more definitive on the album than it has been in the entire existence of Idle Warship. The

album is cohesive; it has a certain sound. Its influences are very soulful, it comes from dance music, hip-hop, but it would be wrong to say it is hip-hop.

Res: This group will always be more about what Kweli and I like at the moment we decide to create the song or body of work, rather than what's going on, as far as what genre it needs to be put in so people will buy it. It's more about just creating music we've never done before.

So, playing off the album title, tell me what is at the heart of your creative process.

Res: The heartbeat for me is the two people together making music no one has heard them do before, plus the artists we had along for the ride who helped produce, write the melodies, background parts, string arrangements.

A man in a dark jacket and beanie is walking away from the camera on a cobblestone street. He is carrying a white Samson Carbon 49 USB MIDI Controller under his arm. The controller is a compact, white device with a semi-weighted keyboard and various control buttons. The background shows a city street with other pedestrians and buildings.

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Kweli: One of the underlying things about our careers at this point is that we're not kids anymore. So thematically there are just some subjects that will be in our minds that aren't in the minds of kids. But we're still people who go out, are in nightclubs, performing throughout the world, and we still like to have fun. So I think the basic premise of *Idle Warship* was to have fun, and the tracks that we picked are just tracks that

were fun to us and wouldn't be on our own respective recent solo albums.

Do you have any habits that you are able to counter or complement through having a collaborator?

Kweli: As a rapper, it's easy to get caught up in the vibe of the audience and start yelling into the mic, but when you're with a singer, you see it's not just yelling to the crowd,

getting it hyped, it's hitting your notes and making sure it sounds the way it's supposed to sound . . . working with a band, I'm learning more about myself as a performer. I'm able to more intellectualize it, to see the show from outside my head and know when to conserve energy, when to go harder, when to sing as opposed to rap . . . pacing is a big part of it.

Res: When we're onstage, we both back each other up vocally a lot. He'll sing background parts, or he's there hyping the crowd up while I sing, and I'm trying to do the same when he's performing. It's innate, a situation that shows how we've gotten better as time has gone on. In this situation, I feel like I'm doing way more than I even felt I could do, and it's definitely because of this group. It helps me grow as an artist.

The Habits of the Heart Sessions

Engineers Alby Cohen and Dave Dar share recording details

What were some standard vocal chains used while recording portions of the album in Rough Magic Studios in Brooklyn?

Alby Cohen: The standard chain for *Habits of the Heart* at my studio was a Neumann U87ai through the Avalon VT-737sp Class A mono tube channel strip.

What were your portable workstations in Jamaica and Puerto Rico?

Dave Dar: In Jamaica we used a MacBook Pro, Digi 002 rack, Focusrite TrakMaster Pro channel strip compressor, AKG C3000b mic, and Genelec 8030s. In Puerto Rico we used a MacBook Pro, Avid Mbox Pro, PreSonus Eureka, AKG C3000b, and Genelec 8030s. I constructed makeshift booths with materials lying around the premises—door panels, curtains, rugs.

What are typical signal chains used for recording members of the live band?

Cohen: For the bass [Brady Watt or Brian Cockerham], I was just going direct through the Avalon 737 DI. I left the sonic work to the mixing engineers when it came to re-amping for their own color, whether in the box or through their own chains. For guitars [John Cave], I set up an AKG C414 through an API 312 preamp, a Shure SM57 through a Joemeek VC6Q channel strip and the Neumann U87ai through the Avalon. For keys, I usually went direct from Yuki's Nord right into the DIs of an AMEK System 9098 Dual mic pre. On upright piano, I put two Neumanns through the AMEK 9098 on the front and an Electro-Voice RE20 on the back, through the Avalon. For the horns, I used a 57 on the trumpet through an API. The trombone was picked up by an RE20 and run through the Avalon, the sax was recorded on a 421 through a Focusrite Red 8, and I set up a stereo room image with a pair of U87s running through the Amek 9098.

What were some of the most memorable recording sessions?

Cohen: I loved tracking and arranging the strings on "Rat Race" with Chad Hammer and Gene Back. It was actually the first time I had done that for Kweli. Chad, Gene, and I were in a small studio space recording triples of all of their parts and then writing multiple lines and counterpoints, all tripled. It sounds so big, but it was just four mics, two string players, and me. We actually ended up putting together four more songs for Kweli for his upcoming album *Prisoner of Conscience*.

Dar: We recorded at the highest point in Puerto Rico, up in the rainforest. If you listen closely, you will hear the coqui frogs in the background of some of the tracks. We also recorded at the Villa Orleans, which is a fly resort on the beach. Keep an ear open for crashing waves on the "Ocean Song."

What gets you into the mindset for recording or performing?

Res: We'll take like a music vacation where we'll go to a place that's really interesting, like Puerto Rico, somewhere in the Caribbean, and we'll go have an engineer come out with us and he'll create a studio in his room. So we'll bring a couple writers out and we'll put together songs in paradise.

So, when recording on location, do you throw together temporary vocal booths with mattresses in a closet, or record in fields and hallways?

Kweli: My vocals in "Rat Race" were recorded at this house I rented in San Juan last year. We had [frequent Talib Kweli album engineer] Dave Dar in there, staying in a separate backhouse, and we had to record during the day before the frogs came out because they were too loud to record at night. I actually have them on my solo album, and [hip-hop artist] Jean Grae, who came out with us as well, has them on a song she put out.

You're moving between recording spaces, sessions, contributors, and projects a lot; how do you lay down ideas efficiently?

Kweli: To me, it's all about the engineer. I use this studio in Brooklyn, Rough Magic, a lot, because it's comfortable, not flashy . . . there's this guy Alby Cohen at Rough Magic who's a total music geek and really gets involved in the project he works on. He was a big reason I use that studio. [Learn more about location and



“I’ve Stopped Snickering at These Ads... Want to Know Why?”

Keith LuBrant – TAXI Member
www.KeithLuBrant.com

I used to think TAXI was just feeding on poor artists and songwriters like me who wanted to catch their big break. *Years* went by, and I never thought twice about joining. Those people at TAXI weren’t going to “fool” me!

I don’t live in Nashville, L.A. or New York, so my chances of getting my music out there seemed pretty slim. I saw the TAXI ad again last year and noticed they offered a money-back guarantee. I probably never read that far in the advertisement because I was too busy feeling sorry for all those “poor” artists and songwriters “wasting” their money!

The Shocking Truth!

I figured I’d be asking for my money back at some point, but then something happened. I submitted some music that was just hanging out on my hard drive, doing absolutely nothing. TAXI sent it to a company and it was placed in a TV show. I was shocked!

Next, I wrote some music specifically targeted at a few of TAXI’s Industry Listings, and one of *those* songs ended up being used on the TBS show, *Saving Grace*. The sync fee for that song *alone* would pay for my TAXI membership for many years to come. And that doesn’t even include the royalties I’m making on the back end!

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Soon afterwards, a *Mattel Hot Wheels* commercial, then in sports training software, and most recently, my songs have been added to *American Idol*’s database for upcoming seasons.

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My Only Regret...

My one regret is that I didn’t join TAXI years ago! I try not to think about how much money I could have earned during the years I was still snickering at these ads. I never dreamed I could be placing so *much* music on so *many* television shows. And my wife is happy that we don’t have to move to a big city!

Stop snickering and call TAXI now. It’s real.

studio recording in “The *Habits of the Heart Sessions*” on page 36.]

How do you share projects?

Kweli: I use Pro Tools for just about everything at this point when I’m coming up with ideas. Pro Tools just seems too easy to front on for me, so that’s why I use it. I’ve gone to studios with Logic, and that’s cool for them, but

Pro Tools, I’m stuck on, because more people I work with have it.

Walk me through a track that you feel best exemplifies the flow of the recording process.

Res: The way we made these songs was different every single time, and never really duplicated past the process of booking a space and showing up at a specific time.

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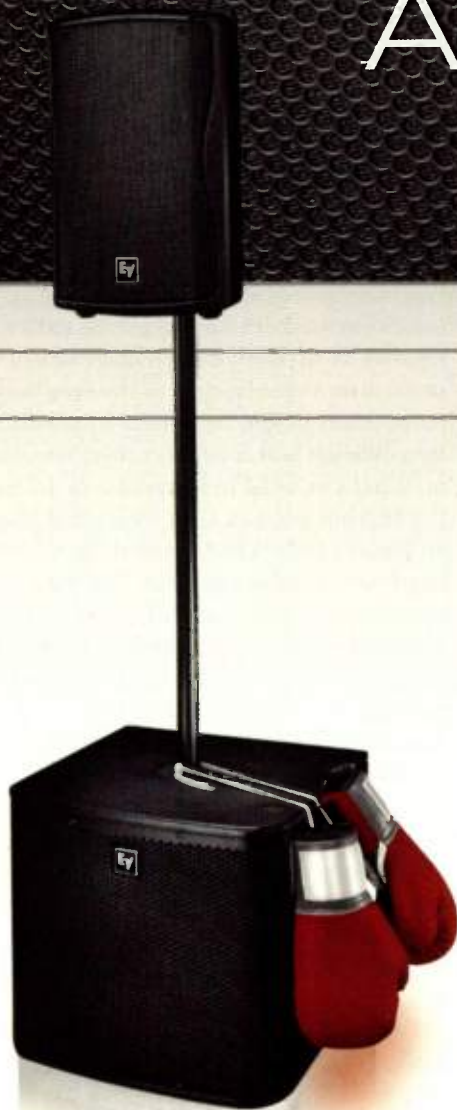
Kweli: It’s true, but I will say that if I had to pick one song, it would be “Enemy.” There’s a producer named Farhot from Germany, and he produced a majority of stuff on the album. He sent me tons of tracks, all different types, and a lot I was interested in using, but it was too out there for the solo hip-hop stuff I’m known for. Res was on tour with me for *Gutter Rainbows*, up in the Pacific Northwest, and we stopped at a friend-of-a-friend’s home studio, and we sat there in the room with Farhot’s track and just laid it and forgot about it. Then, months later, working on the album while touring in some small California town, we remembered it, listened back to it, and it just is really us, nobody else wrote on it; so it really captures our energy.

I’m playing a character. I don’t say the



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- Intuitive input panel for easy control and connectivity



word “bitch” on records like that; I’m beating women up, Res is being the victim, and that’s not us. But that’s what I think is the beauty of Idle Warship . . . we’re not restricted to any one approach. After we wrote our parts, we had our band come and play on it, we sent it to Farhot and he mixed it all back together, and now we start with that song on the album, and we start with that song in our shows.

How long was the entire process?

Kweli: I would say it took about a year, and we recorded for three or four months of that.

Do most tracks just start with a beat and some chords, or are they more fleshed-out arrangements?

Kweli: That’s something that’s very influenced by hip-hop, the process through which we

picked the track. With a band, things start with one part and each member comes in and adds something, while others change things based on those additions. But with these songs, most of the tracks were fully developed as musical ideas when we started on them. We just added our spin on them. We did add some flourishes when the band played on it, though it was more replaying or adding to parts rather than writing completely new ones. When we play live, though, it becomes something totally different.

How do each of you vibe on a track when you are writing, and how has Idle Warship allowed you to expand your approach?

Kweli: I definitely come from writing first and fitting my writing to the music, but as my career has developed, I’ve moved further away from that and tried writing more to the music. But because of the way I started, I find different rhythms and different melodies, and that’s always what people have said about my flow, that sometimes I sound off-beat or that I use too many words, but I feel like I’ve figured it out to where it works for me and it’s my style. With Idle Warship I don’t have to be so much on a specific style, so I’ve even been purposefully looking on some of these songs for a different beat, a different rhythm to write to. What I’ve tried to learn how to do, but I’m still not good at, is to create melodies on top of a beat. That’s something I feel like I’ve never been good at. I’ve done it by mistake sometimes while I flow, I have a natural rhythm and it can do it, but I don’t feel like I have a way to bring a natural melody to a song.

Res: For me, it’s the drums and guitar that spark my interest in the record, and just the overall sound of things. That helps me understand what the song is going to be about. I definitely don’t write lyrics before I hear the track, but I take a lot of time trying to find out what to say, and sometimes it comes to me and sometimes it doesn’t, so it’s good to write with other people. ■

Tony Ware is a writer, editor, family man, budget satorialist, headphones enthusiast, and rumpshaker.

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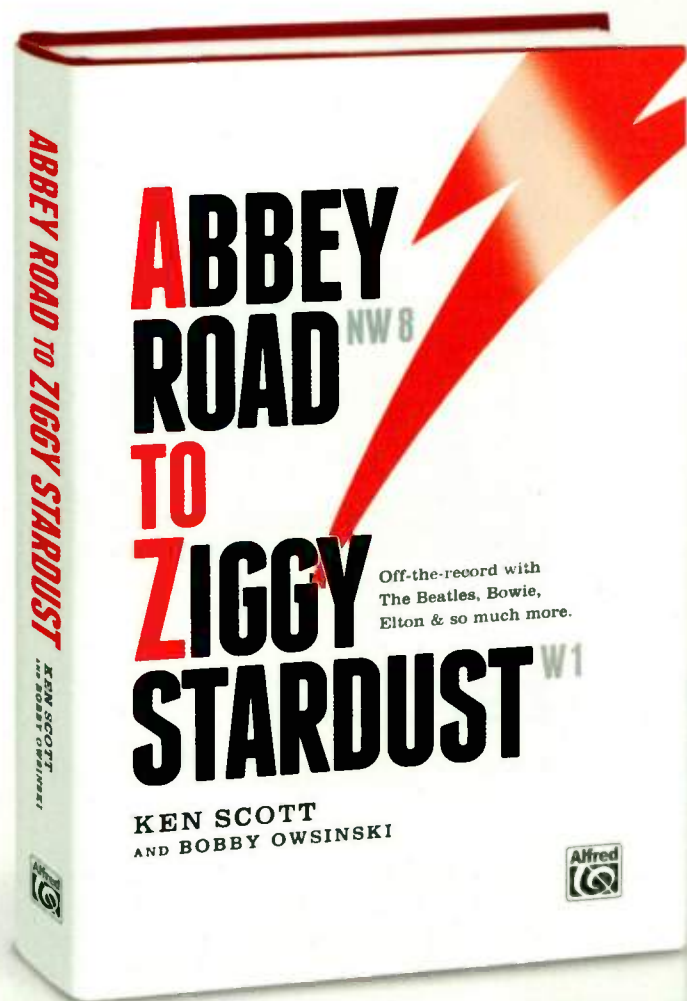
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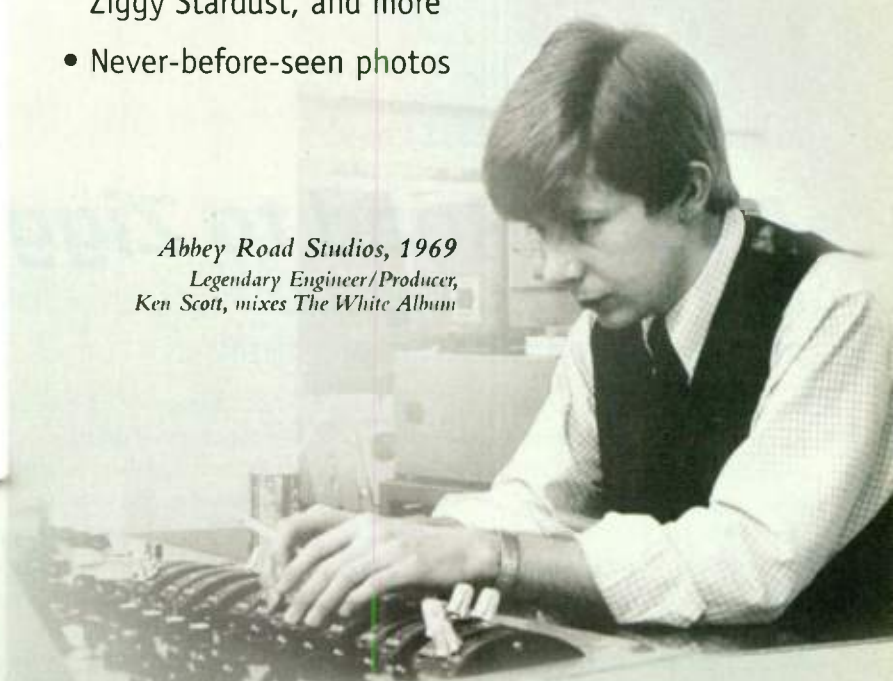
Read extended interviews with Talib Kweli and Res.
emusician.com/july2012

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*Abbey Road Studios, 1969
Legendary Engineer/Producer,
Ken Scott, mixes The White Album*



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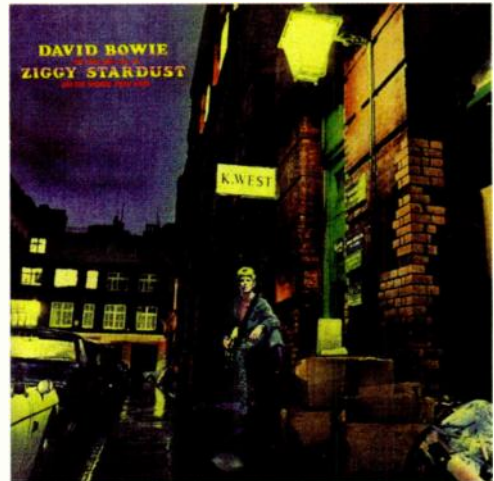


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Mike Banks

Ken Scott posed for this picture at Abbey Road in 2010. In his memoir, Scott takes readers inside studio sessions with The Beatles, Jeff Beck, Pink Floyd, and more.



David Bowie's *The Rise and Fall of Ziggy Stardust and the Spiders from Mars*

Abbey Road to Ziggy Stardust

Off the Record with The Beatles, Bowie, Elton & So Much More

BY KEN SCOTT AND BOBBY OWSINSKI

KEN SCOTT'S new memoir is a gift for recordists and music lovers of all sorts. In *Abbey Road to Ziggy Stardust* (Alfred Music Publishing, alfred.com/AbbeytoZiggy), Scott generously shares his rich experience as the engineer and/or producer behind legendary recordings by The Beatles, Elton John, Mahavishnu Orchestra, America, David Bowie, Dixie Dregs, Devo, Missing Persons, Jeff Beck, Lou Reed, and so many others.

While on staff with EMI and then Trident Studios, Scott worked with some of the most important artists and producers in the UK during the 1960s and '70s, and along the way developed recording and mixing techniques that he's carried with him through the years and still uses today. Lucky for readers, Scott considers it a duty and a privilege to share his knowledge. Toward that end, a couple of years ago, he cre-

ated *A Ken Scott Collection: EpiK DrumS*, a library of classic drum sounds, carefully made with the original drummers on some of Scott's best-loved tracks, so that today's engineers can re-create and/or manipulate Billy Cobham's (Mahavishnu Orchestra) drum sound or Bob Siebenberg's (Supertramp) or Rod Morgenstein's (Dixie Dregs), etc.

Scott says that his decision to offer these classic sounds to the masses stemmed from a conversation he had several years ago in Abbey Road Studio 2, where he became reacquainted with Brian Gibson, a maintenance engineer he'd worked with on Beatles sessions back in the day.

"He told me had specifically asked to work that day so we could have a chat about old times," Scott says. "And he said, 'Do you remember, when we started here, there were all these

old timers who had the most incredible stories of the beginnings of recording? And we used to just sit there listening, fascinated by what they were saying.' And I said, 'Yeah, absolutely.' And he said, 'Well we've now become them. The next generation now wants to hear our stories.'"

Scott has kindly shared his stories with a number of journalists over the years, but his memoir, written with the help of Bobby Owsinski, marks the first time his career has been chronicled so comprehensively, complete with one-of-a-kind photos and input from creative colleagues on both sides of the glass. Here are just a few of Scott's stories.

"Piggies"

The Beatles in Abbey Road

Ah yes, time for a row with the studio management thanks to The Beatles. The band was work-



The Beatles in 1968

ing out the song ["Piggies"] in Number 2 when Chris [Thomas] happened to spot a harpsichord set up in Number 1. Once he started to play it he felt that it might be just the right sound for the song, so he immediately found George Harrison and said, "Come and listen."

When George heard it, the track immediately crystallized in his head and he had to have it on the song.

As they started to wheel the harpsichord out of the studio towards Number 2, I learned what they were doing, rushed down and hit the roof. Number 1 was set up for a big classical project that had already started and was continuing the next day. All the mics were in place and everything was set up as they left it, so you just couldn't change anything like the harpsichord in the middle of it. Everything had to match up with what they did the day before in case they had to make any edits. My solution? We just moved the whole band into Number 1 and recorded the basic there using the harpsichord, acoustic guitar, tambourine, and bass. We put up fresh mics instead of using the ones that were already set up for the session, I took a note of all the EQ settings so I could reset everything, and nothing in the studio ended up being moved. One of the great things about EMI was that they had so many bloody mics that you could double them up easily. We reset everything as it was after we recorded what we needed and moved back into Number 2.

Ziggy

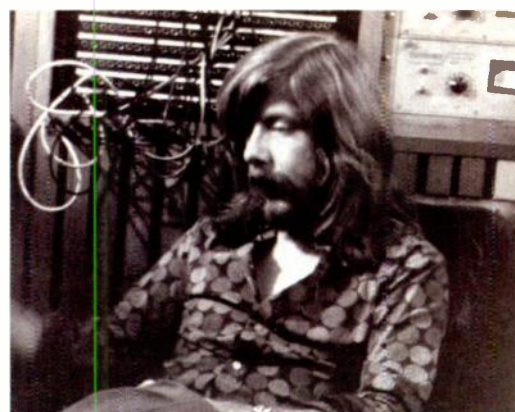
David Bowie in Trident Studios

As with everything Bowie, there are lots of myths and misconceptions, and the so-called "sax section" on "Suffragette City" is certainly one of them. The fact of the matter is that it's not a sax section at all, but a synthesizer. We thought we had finished the song but, as these things often go, it was lacking something. I'd been spending a lot of time messing with the ARP 2500 synthesizer that Trident had recently purchased and suggested we give it a try. I got the sound, and Ronno [Mick Ronson] played the part that David came up with. We were not specifically going for a sax sound and to me it sounds nothing like saxes, so it always surprises me when people tell me they thought it was a sax section. Then, of course, came the really big surprise when David told American DJ Redbeard during an interview that he played all the saxes in the song. Then again, lest we forget, we're talking about Mr. Bowie. One can never tell if he really didn't remember or he was just telling the interviewer what he wanted to hear.

Lay It Back

The Missing Persons in Chateau Recorders

Once the 12-inch EP [*Missing Persons*] had been put out, it was time to finish the album [*Spring Session M*], so we headed back to Chateau Recorders in North Hollywood. It didn't take us much time to record the rest of the al-



Ken Scott

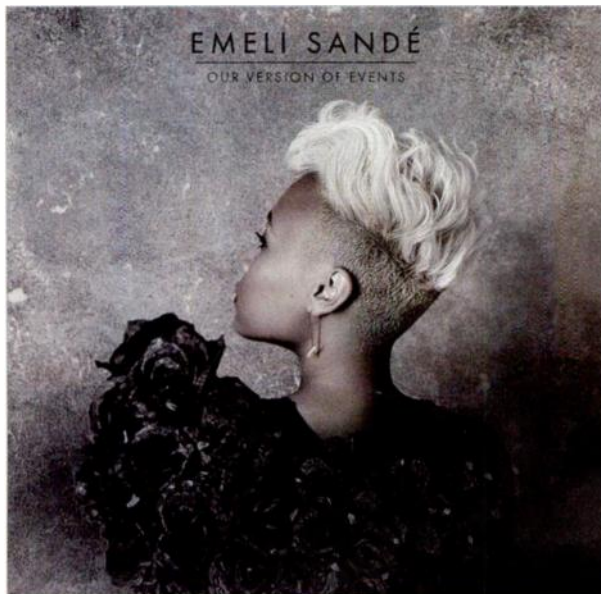
The 1970s, when a mustache was a mustache: Ken Scott at Trident Studios circa '72. Scott's work at Trident included records from David Bowie, the Stones, America and Mott the Hoople.

bum since we'd already gone through the songs in pre-production for the live show. In the end, it took us about three weeks of recording and another couple of weeks mixing.

Recording was unusual because more often than not, Terry [Bozzio] played the track by himself and then we'd start overdubbing from there. As he was co-writer for most of the songs, he knew exactly what he wanted to play without any help from the other bandmembers playing along. Then we would add the bass, then guitars or keyboards, depending on which was most predominant in the song, then it would be Dale [Bozzio], and then backing vocals.

By this time, Patrick O'Hearn had joined the band on bass and bass synth. Even though he was a great player, Terry would consistently tell him. "No, lay it back a bit. I want everyone to think the drums are pushing. Lay it back. Lay it back." It was horrendous for Patrick, but he was certainly up to the task.

A perfect example of Pat's ability was when we were overdubbing bass on "U.S. Drag." He first laid down a Moog synthesizer bass, which didn't quite do it for everyone. Okay, let's try bass guitar then. Not just any bass guitar; he chose to use a fretless. Still wasn't right. Someone suggested listening to both basses together. Crazy. How could fretless and synth basses ever sound in-tune, even if he'd heard the synth when overdubbing the bass? What we heard is what ended up on the final product, perfectly in tune and they fit the track amazingly. ■



Emeli Sandé

Our Version Of Events

CAPITOL

THIS DANCE-ORIENTED collection showcases this Scottish torch with a big vision of a growing star, who has already earned a Brit Award and praise from the likes of Adele and Jools Holland in the U.K. As she is opening for Coldplay on tour this summer, the album's multi-layered, pop-oriented production fits that bill nicely. However, as a talented songwriter, Sandé crafts music that shines through all styles of arrangements, and her silky vibrato and honey-smooth vocal delivery are even better exemplified in the stripped-down acoustic band she's been showcasing with this spring. Don't miss out on some jaw-dropping video performances available online—or better yet, catch her live. CRAIG DALTON



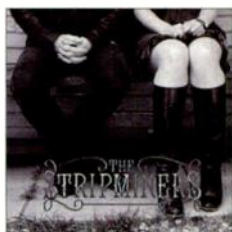
Clark

Iradelphic

WARP

Madcap Brazilian scatting, Four Tet-like acoustic-electronic jumbles, demon-clumsy trip-hop beats, and disconnected voices waft through Clark's music like ghostly spirits seeking release, *Iradelphic* upholding grand Warp tradition with eclectic world weariness. One track ("Ghosted") churns and mindlessly drifts, another ("Black Stone") is as sweetly pastoral as a sad child's piano lesson.

KEN MICALLEF



The Stripminers

Movies

SELF-RELEASED

Brett Anderson of The Donnas and The Radishes' Paul Stinson front a strong band that includes X drummer DJ Bonebrake. Punks and Outlaw Country types will love their raw blend of fuzzy surf punk, garage rock, and more quiet, intimate folkified songs. Male/female vocal interplay evokes X, and sometimes even The B-52's. One highlight is the sweet but slightly sinister-sounding "Better Than a Song," in which the singers portray lovers who wonder which they love better, music or each other.

BARBARA SCHULTZ



Geoff Barrow & Ben Salisbury

DROKK [Music Inspired by Mega-City One]

INVAJA

Like a modern-day Tangerine Dream soundtrack, *DROKK* (inspired by the fictional city-state of the *Judge Dredd* comic book series) is all clanging synths—primarily the Oberheim 2 Voice Synthesizer—amid stillborn techno soundscapes. Blending the Oberheim with various acoustic, but largely unintelligible, instruments, *DROKK* is as cold, dark, dank, and joyously heavy as an alternate *Blade Runner* universe.

KEN MICALLEF



Metric

Synthetica

MMI/MOM+POP

From the vintage Bowie "Modern Love" beat that opens "Speed the Collapse" to the Gary Glitter-ish "Youth Without Youth," Metric's latest is as much an exploration of rhythm as it is a vehicle for the elasticity of lead singer Emily Haines' voice. She sounds triumphantly angelic, digital harmonizer and all, over the four-on-the-floor guitar rock of "Breathing Under Water," and moodily fem-tronic on the amazing "Clone," a sleek and stripped-down Casiotone-fueled groover.

BILL MURPHY



Hot Chip

In Our Heads

DOMINO

Hot Chip have been making flagrantly indulgent dance pop for years, but always with a quirky ear for how the elements of a song fit together, as their fifth album so breezily demonstrates. Whether it's a nutty synth arpeggio ("Ends of the Earth"), a bombastic horn line ("Motion Sickness") or a well-placed electric guitar over a simple drum machine (on the killer ballad "Look at Where We Are"), the band continues to churn out instantly accessible and memorable songs.

BILL MURPHY



Neil Young & Crazy Horse

Americana

REPRISE

Prepare yourself for "Oh Susannah," "Clementine," "Jesus' Chariot (She'll Be Comin' Round the Mountain)" and other chestnuts like you've never imagined them, much less heard them. Neil Young and Crazy Horse are back to rock the American songbook with screaming, distorted guitars and thunderous drums. Some of these tracks sound as gorgeously brutal and intense as any Nick Cave or Tom Waits record. Others are a bit sweeter, but overall *Americana* is like a rock 'n' roll battle cry that will blow your mind.

BARBARA SCHULTZ

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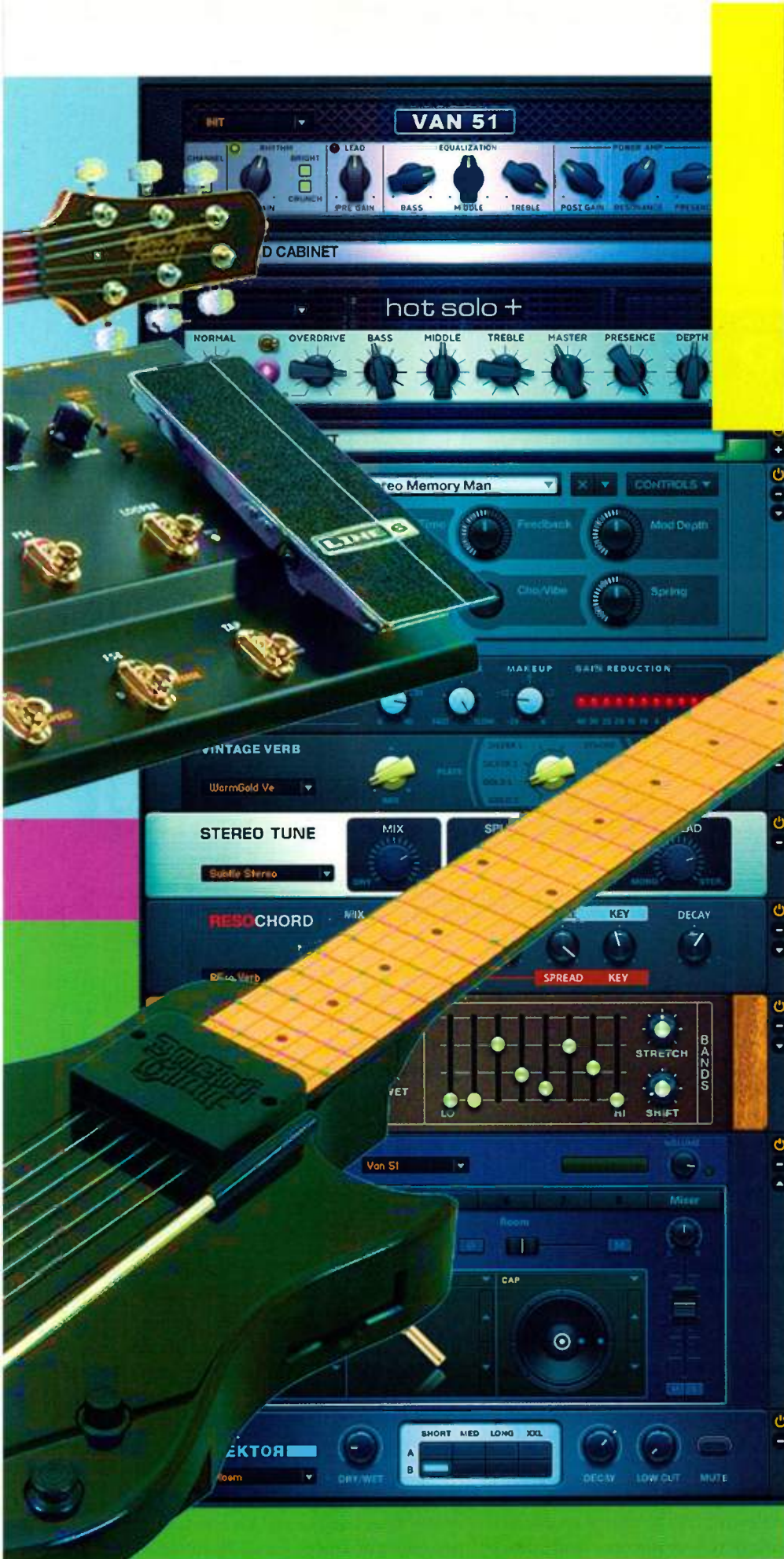




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GAIN 1 GAIN 2

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LUST

Roundup High-Tech Guitar

The latest goodies get the once-over as we search for the ultimate tone—onstage, and in the studio

BY CRAIG ANDERTON

THESE ARE incredible times for guitar players. Whether your tastes run to a cool PRS, the amazing high-tech offerings from Line 6, Gibson, and Roland, a traditional Strat or Les Paul, or any of the latest creative efforts from companies like Ibanez, you're covered. Tubes are back if you're into tubes, analog effects have regained their rightful place alongside multi-effects, amps keep pumping up the volume, MIDI guitar continues to evolve, and amp sims—aided by more powerful computers and more precise algorithms—are reaching new heights in authenticity, tone, and cost-effectiveness.

This roundup takes a look at some of the latest goodies for guitarists, and there are certainly plenty. So keep reading, keep picking, and keep up your quest for the ultimate tone. Given all of the options, you know it's out there somewhere!



Alairex HALO

\$449 MSRP, \$400 street
alairerx.com

The Backstory The electric guitarist's quest is the quest for tone—the elusive quality that ties wood, pickups, strings, amp, and speakers into a cohesive whole. When the electric guitar was born, tubes went along for the ride as they contributed warmth, an emphasis on second-harmonic distortion, and the ability to distort with elegance when you wanted to get gritty.

Then the Great Tube Drought hit, as the world of electronics went solid-state. Products like Tech 21's SansAmp and Peavey's TransTube amps showed that it was possible to get pretty tube-y with solid-state, but they also showed there were definite advantages to silicon: portability, stability, consistency, ruggedness, compactness, and energy efficiency. So when Chinese and Russian tubes eventually found their way back into the hands of guitarists, the search continued for a solid-state equivalent—leading to further refinements in existing technologies, DSP-

based modeling, amp sims, and now HALO: “Harmonic Amp-Like Overdrive.”

HALO, designed by Alex Aguilar (yes, that Aguilar), is an all-metal—as in construction, not musical genre—dual overdrive pedal that's designed to put tube sound in your gig bag. It runs off a 9V battery (one of the footswitch LEDs indicates battery strength), but can also run off external DC negative-tip power supplies from 9-18V. The intention is for you to get your overdrive tone in HALO, feed whatever modulation/delay/reverb etc. effects you want, then go into anything—from a clean tube amp to a P.A. system to a solid-state amp—with a tone will sound how you expect it to sound. HALO does that, but the question then becomes whether the sound is that of a “real” tube amp, or at least something with equivalent tone.

The Special Sauce HALO emphasizes the second- and even-order harmonics—a key characteristic of tube distortion—and adds

You can't tell by this picture, but you could probably drop this pedal multiple times, and it would still survive.

considerable versatility so you can tweak the sound in multiple ways.

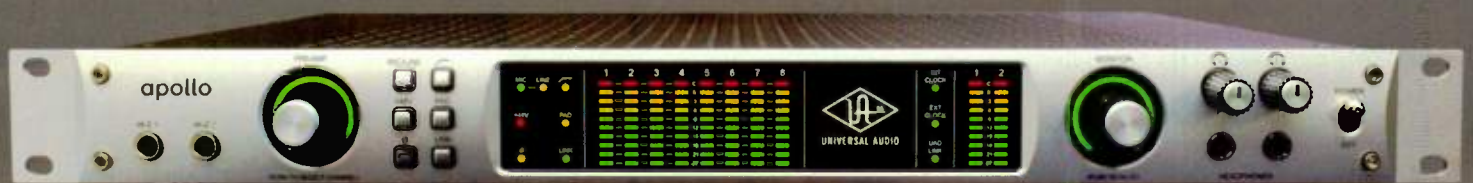
HALO consists of two similar overdrives (the second one is designed for “heavier” sounds), which range from clean to super-saturated. A footswitch switches between them (another footswitch performs enable/bypass), so it's like having a two-channel amp—especially as each overdrive has its own gain and output level controls. A three-position switch chooses among clean boost and two distortion characters: Asymmetrical is dark and complex, while symmetrical has more presence and bite.

A Saturation toggle switches in a stage that follows both overdrive sections, or only the second section (the Saturation stage can also be bypassed), to increase distortion and sustain.

HALO offers several tone-shaping options. The two channels share a Tone knob, which provides treble boost and cut so you can dial in an edge, or mellow it out. Three additional knobs control Bass, Contour, and Presence. Contour is basically a midrange scoop/boost (scooping

apollo

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UNIVERSAL AUDIO

sounds more modern, while boosting adds more of a vintage beef); Presence covers the upper mids. These controls provide a wide range of control over the basic HALO qualities—distortion, sustain, and tone.

The Summary \$400 street for an overdrive pedal seems excessive—until you put the box

through its paces. You'd need to get at least two, and probably more, overdrives to come up with a similar sonic variety. Even then, there's no guarantee you'd get that sweet, second harmonic-heavy distortion. Besides, it has some nice extras—you can replace the battery without tools, and drive long cables thanks to a low-impedance out.

Perhaps most importantly, there's a great “feel” and sense of dynamics; your guitar doesn't get obscured by a sea of sludge, because if anything, HALO enhances your guitar's definition even while saturating it. In a world that's not suffering from a shortage of overdrive pedals, HALO is unique.



The Control Room Pro Module is included in the software upgrade.

Native Instruments Guitar Rig 5 Pro

\$199 MSRP

native-instruments.com

The Backstory Guitar Rig, which is also part of the Komplete software bundle, was introduced in 2004 and has never ceased evolving over that time. The evolution has led to better, more detailed amp models with each new version, improved convolution technology with the cabinets, more effects, and a cleaner UI.

The Special Sauce Version 5 marks a major change in Guitar Rig Pro—it's now positioned not just for guitar, but as a general-purpose signal processing rack. NI has introduced several optional-at-extra-cost modules designed specifically for studio applications (although of course, they can be used with

guitar), and created Guitar Rig Player, a free host version that lets you can run these modules without having to buy the full Guitar Rig Pro program. However, even the free version includes several useful modules: “Jump” amp and cabinet, Screamer distortion, chorus/flanger, reverb, delay, parallel delays, parametric EQ, lowpass synth filter, limiter, volume control, compressor, and noise reduction. It offers multiple modulation options—LFO, envelope, step sequencer, analog sequencer, and envelope follower. It even includes “utilities” like split to create parallel signal paths, crossover, and “container”—very much like Reason's Combinator, or Sonar's FX Chains. Given that the Player is free and has no performance



This screen shot displays the scope of modules available in Guitar Rig 5 Pro.

London Calling!

New Primacoustic London™ Kits for Every Room!

A conversation with renowned producer/engineer Dave Rideau

Dave, tell us about your studio...

Cane River Studios is my personal mixing room where I now mix 80% of my projects. It is a fusion of digital and analog technology.

Who are some of the better known clients you have worked with?

Janet Jackson, Usher, George Benson, Sting, Al Jarreau, TLC, Kirk Franklin and Earth, Wind, and Fire.

What do you do there as opposed to a commercial studio?

I LOVE commercial studios... it is where I have spent most my career. But changes in our business have forced producers to find ways to get projects done for less without sacrificing quality. Recording in big rooms with the interaction of musicians then editing and mixing in a well designed home studio seems to give us the best bang for buck.

What acoustic problems did you have?

I had a decent sounding room before but at higher volumes certain gremlins raised their ugly heads, mostly evident in the low-mids.

How did you configure the panels?

I have a wall directly to my left where there is no opposing wall to my right. I decided to go floor to ceiling with 3" thick panels to make this wall "disappear" as much as possible. Then I configured 12" x 48" Broadway 2" panels on the parallel walls with space between them to control the first order reflections. I then added a MaxTrap corner bass trap.

Did you do the set up yourself?

I did. I like doing this sort of thing. I actually got my first job in the industry as part of the crew that built Westlake Recording Studios in Los Angeles.

What improvements have you noticed?

The room sounds great! The sound-stage is more focused and I noticed a big improvement with a tighter low end. I rarely playback at louder levels but when clients are over it happens. Now it sounds much less congested.

How does it translate to other rooms?

The main test I measure my mixes by is how they translate to the mastering rooms I use. The ultimate compliment you can receive from a mastering person is "I didn't have to touch my EQ". That happens more often since I treated my room with Primacoustic Broadway panels.



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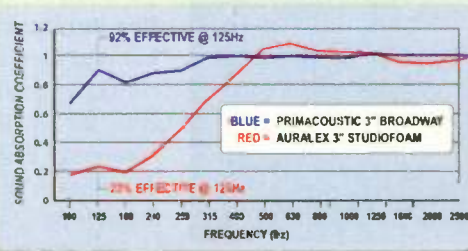


London 10™ \$499*

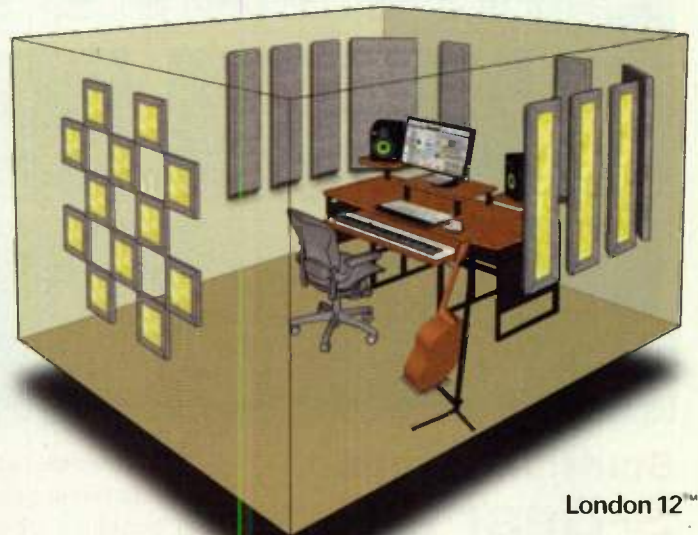


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limitations, I can't think of any reason not to download it.

Meanwhile, Guitar Rig 5 Pro itself has several new components. The two new amps, Van 51 and Hot Solo+, demonstrate that NI's emulation chops continue to produce ever-more realistic results; the Container module is ideal when you use particular combinations of effects, and don't want to load and set them all individually. It also lets you bring particular parameters to front-panel controls, which of course can also be driven via external MIDI controllers.

Version 5 features six new effects, including an improved Control Room that provides up to eight virtual cabinets, mics, and miking positions. The other effects provide some unusual options like Resochord (resonant delays that recall NI's Spektral Delay plug-in), Filterbank, Little Reflektor (a more CPU-friendly version of the included Reflektor reverb), Stereo Tune (an imaging/spreading plug-in), Vintage Verb, and Fast Comp—this is particularly useful for clamping peaks when driving distortion.

The Summary If you liked Guitar Rig before, Guitar Rig 5 Pro adds goodies, presets, and flexibility to run other, studio-oriented plug-ins. (Note these will not work outside the GR host.) I'm particularly impressed with running the new amps through the Control Room Pro module, which lets you create meaty, versatile, and especially, rich tones. If you haven't checked out Guitar Rig yet, download the free Player version to get a taste . . . if you like what you hear, the Pro version delivers a whole lot more.



Scuffham Amps S-Gear 2.0

\$75 MSRP

scuffhamamps.com

The Backstory In last year's high-tech guitar roundup, I reviewed Scuffham Amps' S-Gear (from the designer behind Marshall's JMP-1 amp) debut amp sim, and closed the review with "This is one dark horse that I

The middle rack section is new in version 2.0; the upgrade has numerous other tweaks, particularly to the presets.

predict will still be around for next year's roundup." And they were kind enough to make me look prescient!

S-Gear 2.0 is now available for Mac (stand-alone and AU) as well as Windows

(stand-alone and VST). Compared to last year, it's a true 64-bit plug-in for Windows, although of course, you can still install it as a 32-bit plug. While it's hard for any new amp sim to gain traction, Scuffham has amassed a vocal following from those who appreciate the ease of use, low price, and authentic, "recording-ready" tone.

The Special Sauce Version 2.0 introduces a rack with removable modules you can drag-and-drop into whatever order you want. The original version's Delay Thing and Pro Convolver have been joined by Mod Thing, a straight-ahead Chorus/Flanger—like the Delay, it has an unusually musical tone to it. Rumor has it a reverb is next, so clearly, Scuffham plans to continue to develop the effects aspect of S-Gear.

The Summary There's not much to add to last year's review. A free trial version is still available—good move, because you won't grasp how good this sounds, particularly in terms of dynamic response and lack of "brittleness," until you try it yourself. Also, the presets deserve props. You don't need to be a tweaker to use S-Gear 2.0; just dial up presets until you find something you like—and it probably won't take many presets before you do.

Even if you already have a favorite amp sim, given its low cost and quality sound, S-Gear 2.0 adds some wonderful options to your virtual collection of amps and effects. Download the free trial, install it, and see what you think. Frankly, I continue to be impressed with S-Gear, and Version 2 hints of even more to come.

WHY OURS WORK & OTHERS DON'T



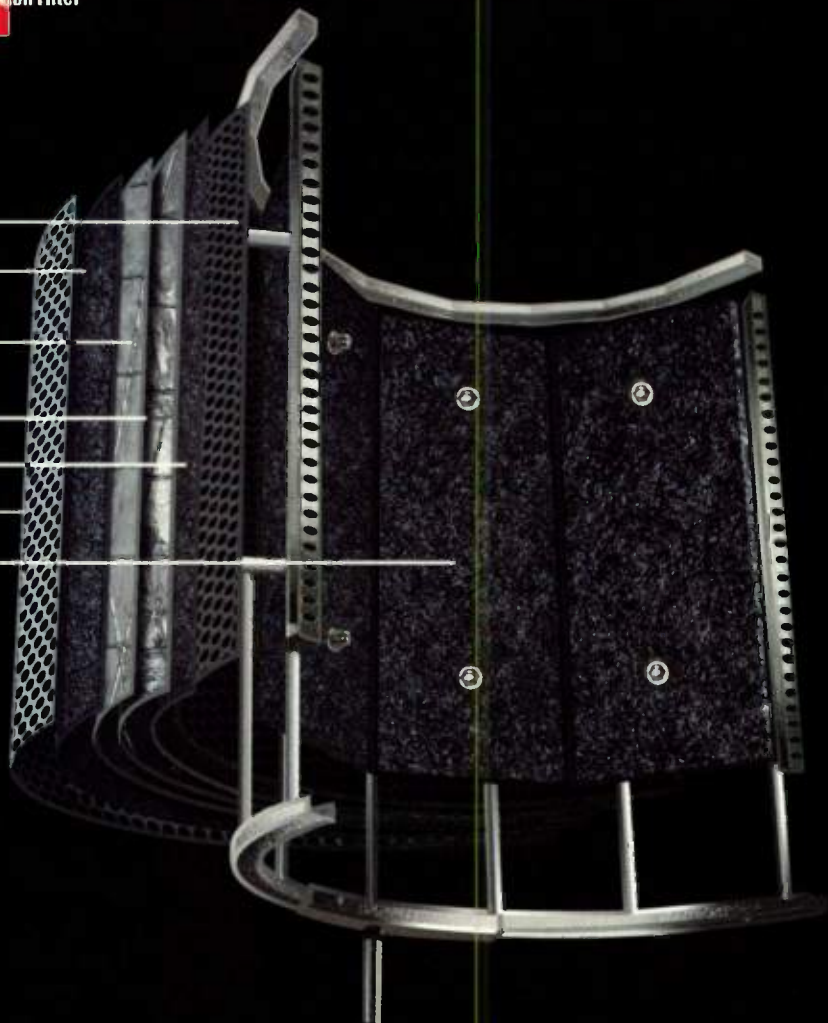
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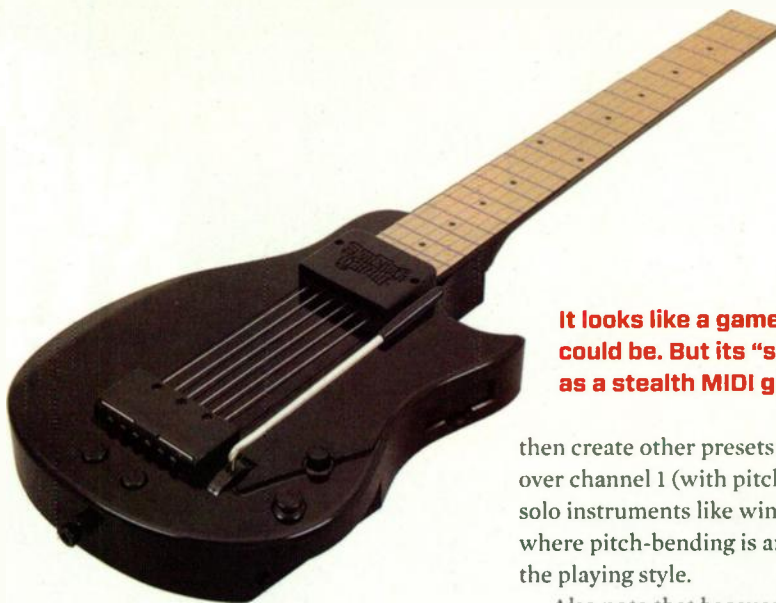
You Rock Guitar YRG-1000

\$229 MSRP, \$139 street
yourockguitar.com

The Backstory What is this, some kind of joke? The YRG-1000 looks like a toy that's auditioning for Guitar Hero. Yet for accessing MIDI synthesizers while using guitar techniques and voicings, it's not only inexpensive, it's surprisingly accurate—but only when tweaked properly, which is crucial.

The Special Sauce The neck's "frets" and "strings" are raised plastic, although they do feel quite comfortable and string-like. As there's no need to detect string pitch, there's no significant latency. To trigger the notes, you pluck six short, "real" strings; you can't bend string pitch or do natural vibrato, but there's a vibrato tailpiece that's a guitarist's version of a keyboard synth's pitchbend wheel, and a joystick that fulfills the function of a synth's mod wheel.

It sounds simple enough, but if you check out user comments on the web, you'll find everything from "it sucks" to "this is incredible." Why the disparity? Although some people just won't be able to get past the fact that it's not really a guitar, there's more to it than that. The YRG is quite sophisticated, and there are multiple adjustments that let you customize the response to your playing style. As a result, sorry—you're going to have to read the manual. It'll take you an hour or two of trial-and-error to get these settings right, but editing them properly can make the difference between frustrating triggering problems and near-perfect response. I can't emphasize enough the importance of getting these tweaks right, but once they're set, you won't need to adjust them again.



It looks like a game controller—and it could be. But its "secret identity" is as a stealth MIDI guitar controller.

then create other presets that send all data over channel 1 (with pitchbend messages) for solo instruments like wind, brass, and the like where pitch-bending is an important part of the playing style.

Also note that because the "frets" and "strings" are essentially switches, the YRG-1000 is ideal for tapping techniques. I don't just mean EVH-style tapping, as you can trigger drum parts and the like. There are adjustments for optimizing this as well.

The Summary If you're into MIDI guitar—or want to be—the YRG-1000 occupies the sweet spot between affordability and accuracy. No, it's not a guitar, and yes, you might get a few snickers when you strap it on. But if there's an easier way to get into triggering MIDI instruments with guitar-like technique, I'm not aware of it—and no one else seems to be, either.

Breaking news: Gen 2 firmware is slated to be available this month. Features include tracking and playability improvements, improved onboard sound library with new samples and presets (I didn't mention that previously because in the original version, it's not a compelling reason to get into the YRG), layering and zoning of sounds, monophonic synth mode, improved slides, better pickup design, and the top seven frets on all strings can be configured as Ableton or DAW control surface switches.

Another important element is setting up your external synthesizer, whether soft synth or hardware tone module (the YRG can output MIDI over USB—ideal for computers, and also powers the guitar so you don't have to use the four AA internal batteries—or a standard 5-pin DIN connector for triggering hardware synthesizers). YRG has four Mono mode presets, where each string transmits over its own MIDI channel. These can be channels 1–6 or 7–12, or the reverse (*i.e.*, channel 1 or channel 7 can be either the first or sixth string).

There are two mono mode advantages. First, you can assign a separate synthesizer sound to each string, like bass for the lower strings, and piano for the upper strings. Second, if you can restrict each sound to allow only one note at a time (like a real guitar string, but not all synths let you do this), the result is a more guitar-like feel and better tracking.

The limitation of YRG's Mono mode is that the virtual whammy bar doesn't send pitchbend data over all six channels at once, although hopefully a planned firmware update will address this. But as YRG can save presets, you can create some Mono mode presets for instruments like piano, vibes, and pads where you tend to play chords without bending,

Line 6 Dream Rig

JTV-59 James Tyler Variax
\$2,099.99 MSRP, \$1,500 street
POD HD500
\$699.99 MSRP, \$500 street
DT25 Amp
\$1,399.99 MSRP, \$1,000 street
line6.com

The Backstory This isn't a "Dream Rig" because $1+1+1 = 3$. With Line 6's system-oriented approach, it's more like $1+1+1 = 6$. The Variax talks to the POD HD500, which in turns talks to the DT25 amp; and with Line 6 Link capabilities, the POD HD500 can talk to more than just the DT. Although this review covers the JTV-59 Variax, DT25 amp, and HD500, variations on the Dream Rig theme include five other

Variax models, as well as the heftier DT50 amp and POD HD300 or HD400.

The Special Sauce, Part 1 The original Variax got high marks for technology, but the relaunch under James Tyler's imprimatur signifies an emphasis on the guitar itself. There are six models; three standard series guitars range from \$1,500 to \$1,300 (street). The most costly model is the \$1,500 single-cutaway/dual-humbucker

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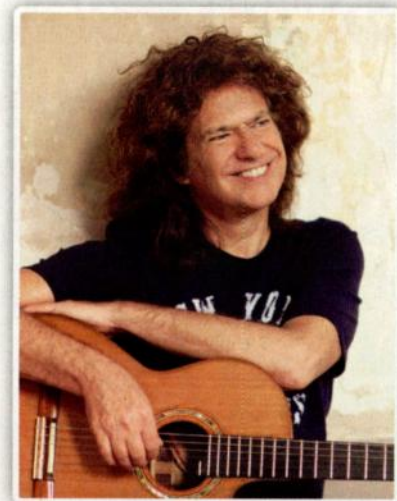
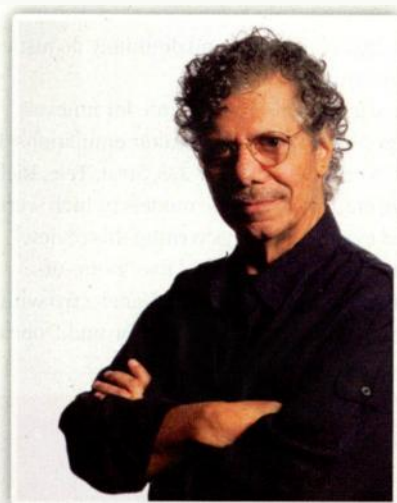
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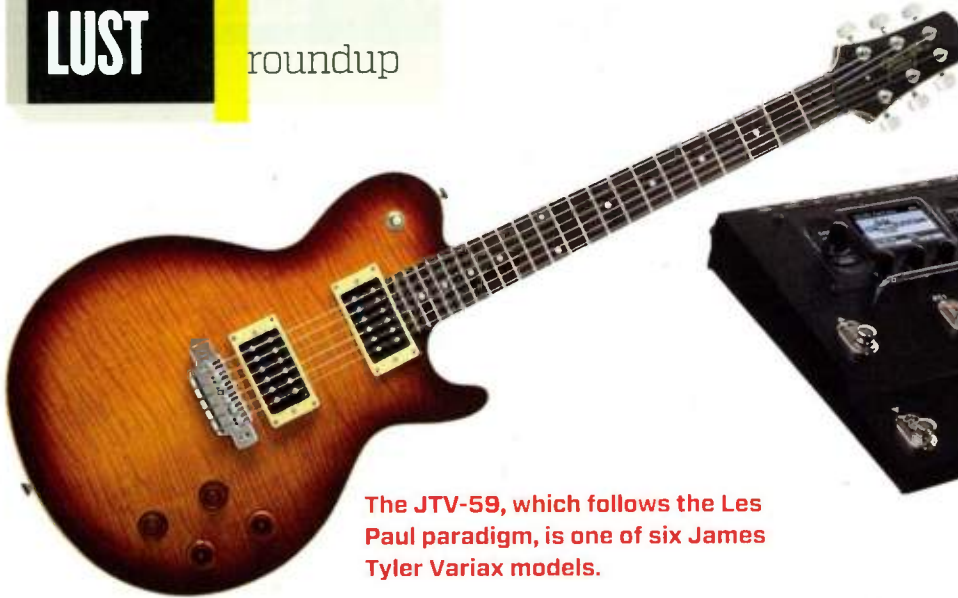
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The JTV-59, which follows the Les Paul paradigm, is one of six James Tyler Variax models.



The POD HD500 doesn't just update the sound quality, but combines both stage and studio orientations.

JTV-59 (which follows the Les Paul paradigm), followed by the \$1,400 Strat-like JTV-69 (vibrato tailpiece, bolt-on neck, and 25-1/2" scale length), and finally the JTV-89 (\$1,300), which features tuners in a reversed six-in-line design, two humbuckers, 25-1/2" scale length, and 24 frets. The custom-shop guitars are made in the USA and are more than twice as expensive as the standard series models. They're fantastic guitars, but frankly, the less expensive models are finely-

crafted, highly playable, and definitely do justice to the electronics.

These guitars also up the ante for innovation. They offer 28 onboard guitar emulations: 18 vintage types (Les Paul, ES-335, Strat, Tele, Rick, Gretsch, etc.), five acoustic models (which were updated even while I was writing this review) including two 12-strings, and five "none-of-the-above"—Coral sitar, banjo, Danelectro with Lipstick pickups, Tricone resonator, and Dobro.

Eleven alternate tunings are instantly accessible; you have the option to make your own, as well as customize the selection of sounds and tunings (e.g., you can create a bank with five Rickenbacker 360 12-strings, each with an alternate tuning). The excellent Variax Workbench software—basically, a virtual custom shop that lets you change pickups and electronics sans soldering iron and swap out neck and body without a woodshop—is still a part of the package.

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JTV-59

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LINE 6

Unlike the original Variax, the James Tyler models have standard pickups and can work as regular electric guitars that do not require batteries. Bottom line: You played the original Variax because that was the only way to get the technology; you play the new Variax because you like to play it.

The Special Sauce, Part 2 Although HD technology represented a significant upgrade over the original POD, there's more to the POD HD500. It has the look and feel (and rugged construction, including the footpedal) of stage gear, but also includes studio-friendly extras, including S/PDIF out that can be used for recording the processed signal or a direct, digital dry connection to your DAW, which is ideal for re-amping—while you do zero-latency monitoring of the HD500's processed sound. You'll also find USB 2.0, editing software with POD Farm 2's graphic look (but of course, not its audio editing capabilities) at its core, a digital Variax input, and the L6 Link option. (More on that later.)

The effects loop can drive guitar- or line-level processors, and three “trim switches” accommo-



The DT25 amp achieves multiple characters—not through digital modeling, but via clever analog circuitry changes.

date various interfacing scenarios—guitar input pad on/off, XLR ground lift or normal, and 1/4" output, switchable between line and amp level. Two parallel effects chains can provide separate amps and cabs for the left and right channels; compared to earlier PODs, the modeling is more detailed, and the breakup from dry to distorted is smoother and more graded.

The companion software is a straightforward editor/librarian that greatly simplifies patch creation and storage, but it can remain active while recording so you can tweak and record without having to open and close programs.

Two cautions: First, the knobs are hard to

tweak without obscuring the display, although you'll likely use the editing software for any serious programming. Second, many presets seem intended to impress on the music store floor—stripping a preset down to amp with a carefully selected cabinet and mic, along with maybe EQ and one other effect, often produced more “musical” results for me. Remember that it's highly unlikely that the presets were programmed with someone who uses the same setup as you—I usually need to pull back on the drive, because I use heavier-gauge strings and a thumbpick. A little tweaking can make the difference between a

Clearly creative.



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preset that you'd pass by, or one that sounds phenomenal for your style.

The Special Sauce, Part 3 The 1x12 DT25, co-designed with Bogner, breaks the tube amp paradigm. Traditional amps have one character, and you can change the sound within the limits of that character—but the DT25 lets you change the amp's essential character itself. It has two footswitchable channels with traditional controls, but you can also tailor the voicing/feedback topology in four ways (American Clean, British Crunch, Class A Chime, or Modern High-Gain), choose Class A (10W) or Class AB (25W) operation, and select pentode or triode tube characteristics. I/O includes a transformer-coupled direct out with cabinet simulation, effects loop, a "low volume" mode that preserves tone at lower levels, MIDI, and the L6 Link.

Overall, this is a wonderful amp (especially for recording), not just because it sounds good, but because it offers so many different sonic characters. Just as the Variax emulates different

guitar sounds, the DT25 can emulate different amp sounds. But that's not the *coup de grâce*...

The Special Sauce, Part 4 The synergy is the big deal. Because the HD500 has a Variax input, you can store the Variax settings with a preset... or not. The L6 Link allows for bi-directional control and one-way digital audio, and communication between the HD500 and up to four DT-family amps using a single XLR cable (up to about 20 feet, but longer with an AES/EBU cable). For example, if you call up a particular amp model on the HD500, the DT amp automatically reconfigures itself in the analog domain to reflect the characteristics of the chosen amp. Seriously. You can save amp settings in an HD500 preset, place the HD500 within the DT25 effects loop, tweak settings on the HD500 with the DT25 updating automatically (or vice-versa), or edit an HD500 preset by turning the DT25's knobs. You can even process the magnetic pickup and Variax outputs separately within the HD500, and blend them in real time with a footpedal and/or the Variax tone knob.

Really, the "dream" aspect of the dream rig has two components. The first is the ability to achieve a near-infinite variety of tones that include modeled guitar, standard pickups, modeled amps, real amps, DSP, tubes... you name it. If only I'd had this when I was doing studio work back in the '70s, I could have taken over the world.

The second component is convenience. If you had to swap guitars to use an alternate tuning, or avoided alternate tunings because of the inconvenience, now they're just a rotary-switch click or so away. Ditto for loading in sounds and tunings so you can step through them during a performance, and unifying Variax, DT25, and HD500 settings into a single POD HD500 preset.

Sure, the individual components are exceptional. But put them all together, and you have... well, a dream rig. ■



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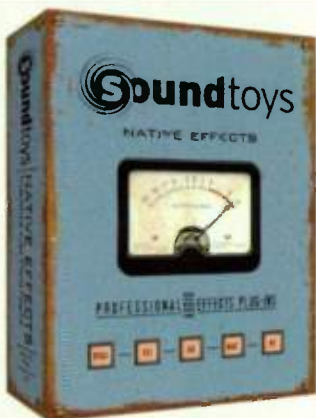
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EastWest Hollywood Brass Library

Meticulously
recorded samples,
deep programming
features

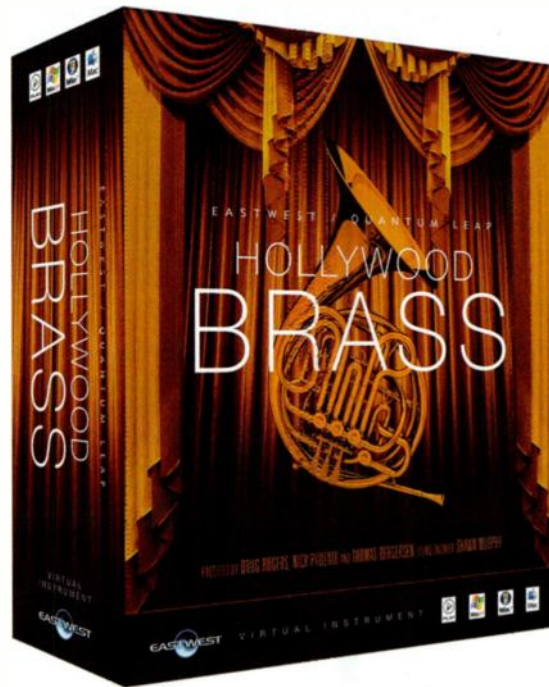
BY ROB SHROCK

SUMMARY

STRENGTHS: Meticulously-engineered brass samples recorded in a legendary studio. Extensive variety of articulations and ensemble configurations. Excellent companion to *Hollywood Strings*.

LIMITATIONS: Sophisticated technology is demanding on CPU resources. Not all ensemble configurations represented.

\$795 MSRP
(Diamond Edition),
\$475 MSRP
(Gold Edition)
soundsonline.com



FOLLOWING ON the success of *Hollywood Strings* (HS), EastWest released *Hollywood Brass* (HB) in late 2011. The process was much the same for the latter as for the former: Hire A-list studio musicians in Los Angeles; enlist Academy- and Emmy-winning engineer Shawn Murphy to oversee the sampling sessions; and do it in EastWest Studios (formerly known as Cello, Ocean Way, and Bill Putnam's United/Western Studios). How's that for pedigree?

Having previously reviewed HS for *Electronic Musician*, I had high expectations for the brass library. I was not disappointed, as the level of recording and programming detail runs deep; however, HB is much easier on your system than their string library. HB's 150GB Diamond Edition (reviewed here) is delivered on a 7200rpm hard drive and features 24-bit samples with five microphone positions, while the 20GB Gold Edition features one mic position and 16-bit samples. Available articulations between the two editions are identical; only the sample rate and mic configurations differ.

I worked in both Studio 1 and Studio 2 with Burt Bacharach and Elvis Costello when it was operating as Cello Studios, and I can attest to Studio 1's sound—open, but not excessively reverberant. This makes it a good choice for sounds that are both rich and spacious, and EastWest has included a number of excellent convolution reverbs in the current version of Play (the cross-

platform, virtual instrument engine used by EastWest library releases) for adding actual reverb.

In the Library The Diamond Edition provides four simultaneous, phase-locked mic positions that can be mixed to taste: Close (directly in front of the instrument(s)); Mid (back a bit and in front of each section); Main (a Decca tree configuration up high above the conductor position); and Surround (room mics, switchable to an alternate “vintage” set of RCA44 ribbon mics). The Gold Edition utilizes the Main mics only that, frankly, sound great and are sufficient for a lot of orchestral and film work.

Each section includes a thorough, though not exhaustive, set of articulations. Trumpets, trombones, French horn, tuba, and cimbasso are presented in solo form and in various combinations of two-, three- and six-member sections. Most of the common articulations are well represented, in addition to round-robins, true legato, and a number of effect and low brass unison and octave patches. Don't expect a lot of jazz and pop style articulations, as that's beyond HB's scope.

The well-written and detailed manual lays out the mapping of the various patches, which use a combination of mod wheel, keyswitching, velocity, and expression to shape the performance. You'll need to spend some time getting to know the various instruments and how they're controlled, which vary from patch to patch. After a couple hours you'll understand the basic library layout; however, it's not trivial to play perfect-sounding brass parts on the fly. Even now, I still have to edit various controllers, patch changes, and my playing to create realistic-sounding brass parts.

Although the EW Play engine can be demanding on resources because the complexity and depth of this library pushes technology to the edge, the current version runs much more smoothly than in the past. With patience and a sense of good orchestration, HB can produce stunning results not easily achieved until now. ■

Composer/producer Rob Shrock (robshrock.com) has worked with many legendary recording artists.



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2Box DrumIt Five

Load samples into
this responsive
electronic drum kit

BY REEK N. HAVOK

SUMMARY

STRENGTHS: Amazing dynamic response. Great sounds, and can load your own samples. Very playable. Additional free sounds available online.

LIMITATIONS: Proprietary rack lacks some adjustability. Cymbal arms don't have tilts for adjustment.

\$3,999.95 MSRP
\$2,899.99 MAP
2box.se

SWEDISH COMPANY 2Box's DrumIt Five may not have particularly earth-shattering technology (e.g., physical modeling for changing drum size), but it's a fast, responsive, cost-effective instrument with great sounds, excellent playability, and Flash RAM for loading your own samples.

Roll Your Own Sounds DrumIt Five's 44.1kHz/24-bit sounds are masterfully recorded—the majority with deep layers of multi-samples—and populate most of the 4GB onboard Flash RAM, with more free sounds available on the web. But the ability to load your own sounds is a unique, standout feature. A free Mac/Windows kit editor makes it easy to load new sounds into the brain, which appears on your computer like a flash drive. You can drag up to 128 samples onto a drum pad, translate these files in DrumIt Five's proprietary format, then save them to your computer and the brain via USB.

Brainiac The brain features 10 trigger ins with TRS 1/4" inputs that handle one, two, or three zone pads or acoustic drum triggers. The inputs share 15 internal drum sound channels, so using more than the standard five-piece kit with hi-hat and two cymbal pads requires distributing the channels accordingly. The 12" snare and 10" tom pads can be single- or dual channel, and the cymbal pads can have 1–3 zones (bell, top, and pad edge). The hi-hat also uses three channels. The unit has six individual mono outs and one stereo headphone out (switchable to line level, like the other six outs).

Each of the 100 kits can have its own sounds, groove sample (triggered by a button

on the brain or input jack), and mix. You can even program a metronome to count in a click. Each kit also has global EQ and compression settings; a simple echo or chorus teams with an independent send for each drum.

Customizing kits is simple, however in my opinion, almost all of the kits need the cymbals turned down, and some ride cymbals have a crash on the edge that I can't adjust independently of other sounds on that pad. The company says this can be changed in the future if other drummers feel the same way.

Variations on a Pad The pad body has an orange metal ring; the pads are only about 1.5" deep, with drum-style screws to adjust the head. The rim has a hard rubber covering, and a secondary trigger for rim or other sounds.

The pads are available with mesh heads (I really like their feel), regular drum heads, and an upcoming rubber head. The bass drum pad is a 14" mesh; the provided hard foam beater is much softer than an acoustic kit type, with the combination providing a wonderful kick drum feel. Cymbal and hi-hat pads are made of rubber over hard plastic. Triggers can snap onto your acoustic drums for triggering the brain.

Ready to Rock DrumIt Five comes ready to play with a lightweight rack and connecting cables. The hi-hat stand and bass drum pedal don't have legs; this limits their placement, but anchoring the bass drum to the rack ensures it won't move. Though I'll be swapping out the pedals for my DWs, the included pedals are very usable. The tom arms and cymbal arms both lack tilts so the only adjustment is from the ball joint in the mount. However, the standardized 2" rack allows for third-party mounts and expandability.

Minor shortcomings notwithstanding, this kit plays like a dream. I like the mesh pads (unlike some of the others I've played), sonic realism, and musicality; add ongoing software development and a free sound library (the new Pete Lockett samples are some of the most playable percussion samples I've ever used) and for me, this is the electronic kit to get. ■

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

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1 Audio-Technica AT2005USB

USB+XLR mic
\$149

HIGHLIGHTS Cardioid handheld dynamic mic with both USB and XLR connections • metal construction • low-mass diaphragm • headphone output with volume control for monitoring directly from the mic • Windows/Mac-compatible • comes with USB and XLR-to-XLR cables, tripod desk stand, and threaded mic stand clamp

TARGET MARKET Vocal/instrument miking for live performance or laptop-based recording

ANALYSIS USB mics have been popular for a while, but their quality has improved to the point where they can be your “main” mic. Including USB and XLR connectors simplifies transitioning a mic between stage and laptop studio.

audio-technica.com

2 Eventide Stompbox Updates

New firmware
Free for current users

HIGHLIGHTS TimeFactor includes presets from Roger Waters’ The Wall Live tour, provided by lead guitarist Dave Kilminster • the Space stompbox can now freeze reverb, and users can continue to play on top of sustained reverb • new sounds and system enhancements are available for the ModFactor and PitchFactor effects • all updates are included in new units shipped from Eventide

TARGET MARKET Owners of the various Eventide studio/stage stompboxes

ANALYSIS Software updates aren’t new, but they’re becoming more common in stompboxes and effects. The TimeFactor update also underscores the increasing use of “celebrity” presets.

eventide.com

3 XILS-lab Chor’X

Chorus plug-in
€59 (approx. \$75)

HIGHLIGHTS Emulates analog BBD (Bucket-Brigade Delay) chorus effects • three different emulations • stereo dynamic spatializer • includes compander emulation to re-create inherent artifacts accurately • the Dry tool can add chorus to the tail end of a sound but not the attack to preserve transients

TARGET MARKET Musicians seeking a different, funkier delay effect compared to today’s digital delays

ANALYSIS BBD-based delays, like the original E-H Memory Man, had a unique, gritty sound that used compression/expansion—which contributed its own artifacts—to help overcome noise. This specialized plug-in resurrects a rare, vintage effect.

xils-lab.com

4 Korg Pandora Mini

Personal multi-effects
\$225

HIGHLIGHTS 200 preset programs • 200 user programs • 158 types of amps and effects • use up to seven effects simultaneously • 100 rhythm patterns • built-in metronome • aux input for jamming with CD or MP3 players; can change aux input pitch by ± one octave • battery/USB power

TARGET MARKET Guitar and bass players who want to have a highly portable effects setup for performance, practicing, or composing

ANALYSIS The first Pandora was released in 1995, and the latest model represents another incremental improvement in functionality, size, and cost.

korg.com

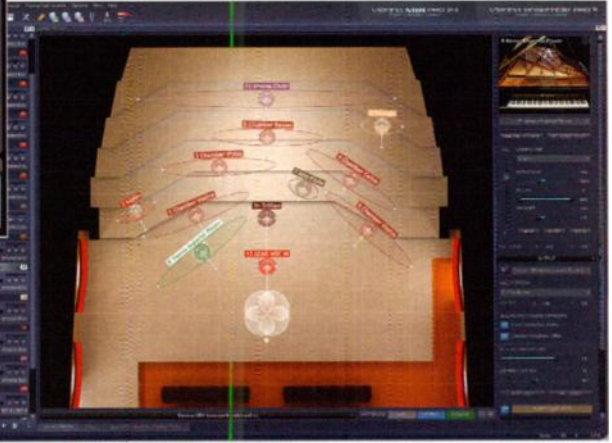


5



6
Yamaha
MGP16X
Analog mixer
\$999

HIGHLIGHTS 16 channels with 10 discrete Class A mic pres and phantom power • 4 buses • Xpressive EQ based on VCM (Virtual Circuit Modeling) • dual digital effects (SPX block and REV-X reverb) • USB port • digital iPod/iPhone I/O • ducker and tap tempo
TARGET MARKET Its light weight and tabletop or rack-mount use make the MGP16X well-suited for mobile solo acts, bands, small-to medium-sized nightclubs, presentations, and theaters
ANALYSIS The MGP16X is designed for multiple applications and various operating conditions. It has what bands need, but can also fulfill other functions.
yamaha.com



7

7
VSL
Vienna MIR Pro 24
Mixing and reverb software
\$475

HIGHLIGHTS Entry-level version of VSL's Multi Impulse Response mixing/reverb software • places up to 24 instruments, ensembles, or audio signals in virtual stages • provides precise control over every instrument's position, direction, and character • comes with 11,000 impulse responses • requires Vienna Ensemble PRO 5 mixing host (\$595 bundle price for both applications), whose mix engine accepts your DAW's audio signals
TARGET MARKET High-end, software-based mix engineers who require precise sonic spatialization
ANALYSIS Space is the final frontier; VSL uses convolution technology to go beyond reverb, and allow uncannily accurate spatialization in mixes.
vsl.co.at



8

8
Chauvet
COLORband PiX
Wash lighting effect
\$419.99

HIGHLIGHTS Linear LED fixtures with individual pixel control • powered by twelve 3W tri-colored LEDs • weighs less than nine pounds • can generate pixel-mapping effects • works with ShowXpress Pixels (a software lighting console program for computers) • includes multiple DMX personalities • automated, pre-built programs are accessible with or without DMX • onboard three- and five-pin DMX connectors
TARGET MARKET DJs, bands, solo acts who want to add cost-effective lighting effects
ANALYSIS Lighting continues to get less expensive, lighter, and more capable; being able to power link with other COLORbands also saves time running cables.
chauvetlighting.com

5
Sample Logic
Synergy X
Virtual instrument
\$399.99

HIGHLIGHTS 20GB library with samples, 600 instruments, tempo-synced loops, and multis • Kontakt Player host • instruments and multis organized by genre to make it easier to find presets • sequencer, multiple LFO options, and arpeggiator for tempo sync • \$60 update for Synergy owners
TARGET AUDIENCE Sound designers, composers, audio-for-video creators, and virtual instrumentalists for live performance
ANALYSIS Virtual instruments continue to get bigger, broader, and with increasingly expanded libraries. Synergy X provides a global perspective on environments, soundscapes, and textures that fills in some of the holes left by other libraries.
samplelogic.com



iZotope
Iris
\$249

WHY: Achieve totally unique sounds from sample-based technology.
DESCRIPTION: Iris' visual audio representation lets you extract sonic components, then layer them together to create never-before-heard combinations. You can get started immediately with 500 presets, or dive into the 4GB library; there are also plenty of effects (reverb, distortion, chorus, delay, and filters). In addition to making conventional sounds, Iris has exceptional potential for sound designers, audio-for-video, and video games.

izotope.com



u-he
DIVA
\$179

WHY: You have a really powerful computer, and don't fear instruments that devour CPU cycles.
DESCRIPTION: DIVA stands for Dinosaur Impersonating Virtual Analogue—the oscillators, filters, and envelopes model components from vintage monophonic and polyphonic synths. You can mix and match modules to build unique hybrid instruments, or simply draw from the more than 1,200 presets. There are a lot of virtual analog synthesizers, but DIVA applies methods from industrial circuit simulators to achieve excellent realtime emulation.

u-he.com



Native Instruments
Razor
\$79

WHY: Because you want cutting-edge additive synthesis sounds
DESCRIPTION: Razor comes with Complete 8 Ultimate, but can be purchased separately as a download and uses the free Reaktor Player as a host. Its easy-to-use additive synthesis engine consists of up to 320 partials, which create all sounds and effects (filters, stereo imaging, even reverbs and delays). The sound is extremely present and "high-res"; the 350-plus presets are excellent, and especially well-suited to dance music.

native-instruments.com



Applied Acoustics
Chromaphone
\$199

WHY: Sounds based on modeled acoustic resonators are expressive and highly playable.
DESCRIPTION: The modeling-based technology combines various acoustic resonators to create percussion and other instruments. It incorporates the coupling effects that arise from interacting objects exchanging acoustic energy—for example, the way a metal bar interacts with the air column from a vibraphone's tube. While the sound is "acoustic," it's also highly controllable. The included sound library ranges from playable instruments to kits for rhythm tracks.

applied-acoustics.com



Arturia
Oberheim SEM V
\$249

WHY: Just try to find the original hardware.
DESCRIPTION: In typical Arturia fashion, the SEM V starts with a faithful reproduction of the sound of Tom Oberheim's classic synth hardware, then adds features like eight-voice multi-timbral operation, white noise, sub oscillator, additional LFO, effects (overdrive, delay, chorus), arpeggiator, and portamento. It also includes matrix modulation, a voice programmer, and a "keyboard follow" module that facilitates drawing modulation curves on the fly.

arturia.com

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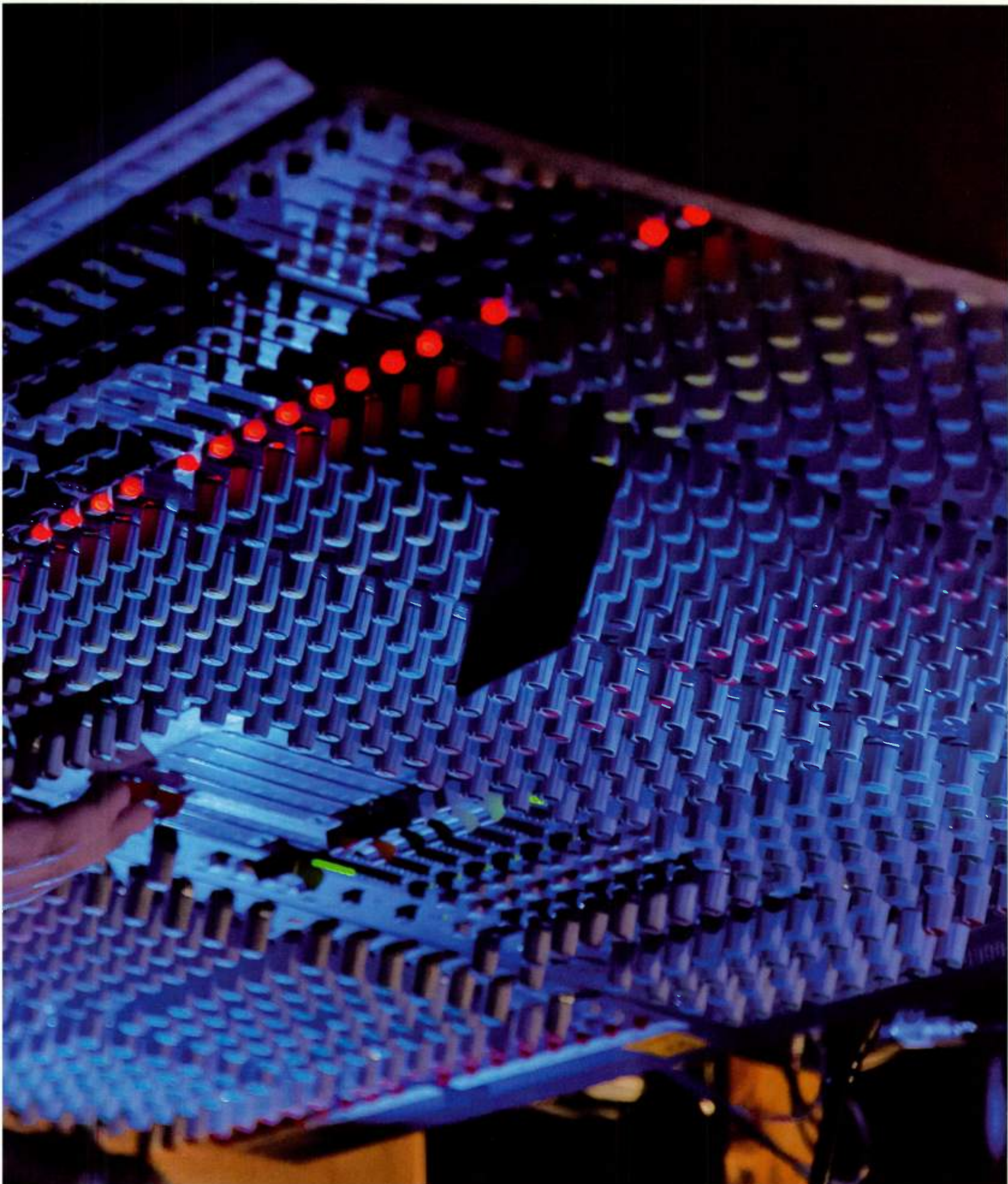
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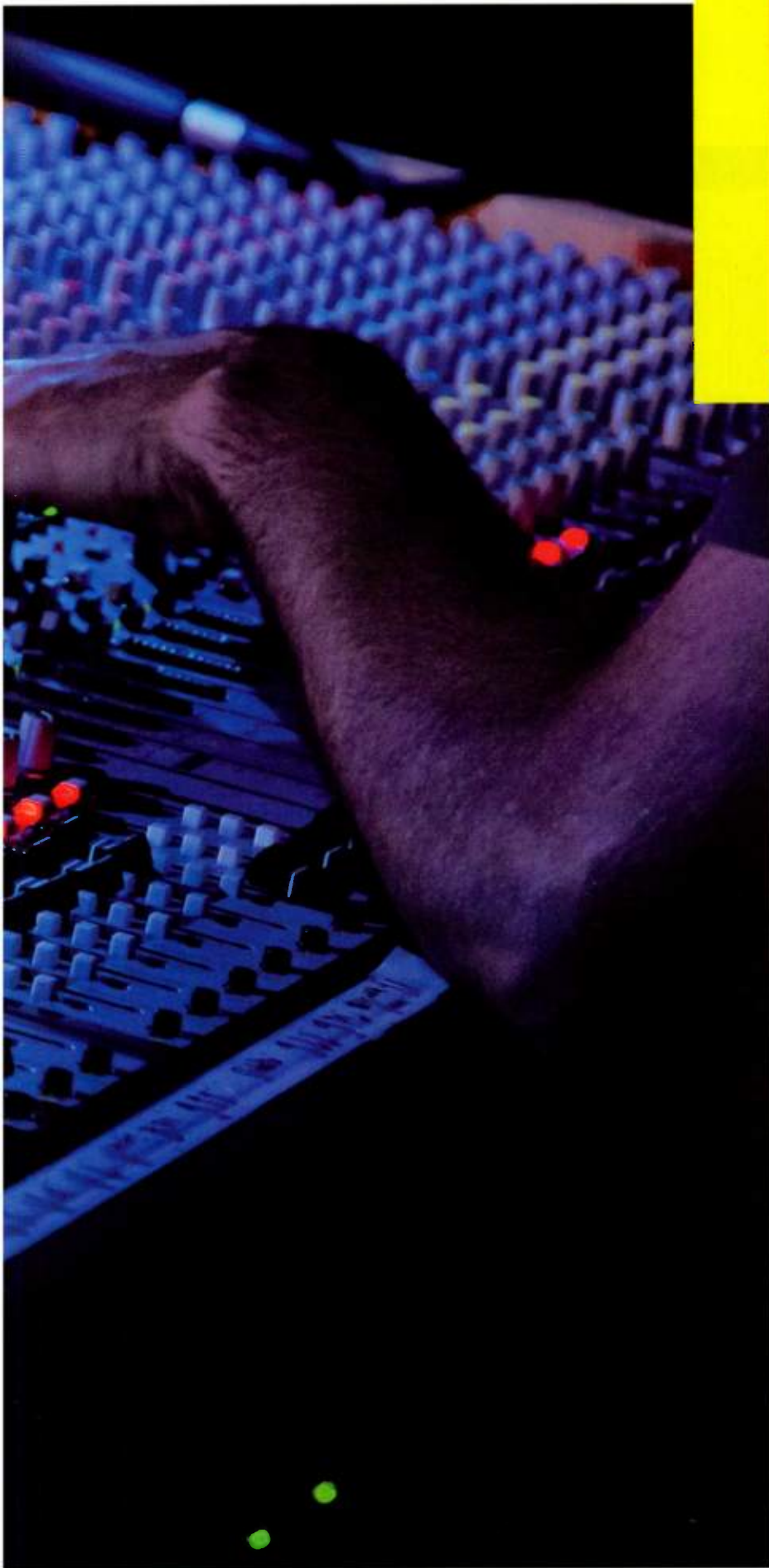
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Perfecting Your Mix

Take your production from good to great with these tips

BY MICHAEL COOPER

I LIKE to tell my clients that a great mix happens in the last five minutes of work. Because an adjustment on one track can change the way the entire mix sounds, the final tweaks make everything fall into place.

Getting there, however, is fraught with danger. Make the lead vocal a couple dB too loud, and the backing tracks will sound wimpy. Allow the guitars too much low-midrange tone to give them warmth and girth, and the mix's bottom end will sound blurry. Bump up the reverb returns a tad too much, and the wonderful punch you crafted on the kick and bass will go out the window. A few misplaced adjustments are all it takes to disfigure your mix. But conversely, the right nip and tuck will transform it from middling to magnificent.

In this article, I'll offer pointers on deciphering what's wrong with a disappointing mix and how to correct it. But first, it's important to mention a common mistake that robs a mix's potential fresh out of the gate.

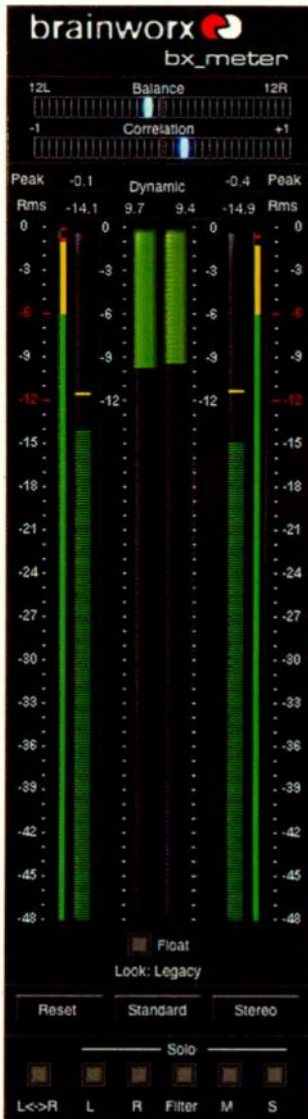


Fig. 1. The center LED ladders for the Brainworx bx_meter show your mix's dynamic range in decibels. The farther the LEDs extend down from the top of the meters (0dB), the greater your mix's crest factor.

A few misplaced adjustments are all it takes to disfigure your mix. But conversely, the right nip and tuck will transform it from middling to magnificent.



Fig. 2. The Waves TransX plug-in can be used to increase the attack of trap drums and make your mix sound more dynamic.

Avoid Headroom Hara-kiri Starting your mixdown session with all faders close to 0dB is a recipe for distortion and a harsh-sounding mix. On a mix with lots of tracks, start with all faders set considerably lower in order to give your master bus plenty of headroom. You can always raise your master bus fader (or makeup gain for a pre-fader bus compressor) to compensate for any deficit in level, but lowering the master fader won't undo clipping that occurs at the bus' input.

If you run out of headroom, you can group all faders for tracks and auxes and pull them down the same amount to prevent clipping the master bus. But because faders usually have logarithmic tapers, linear adjustments across the board won't fully preserve your carefully wrought balance. Additionally, any pre-fader effects will end up sounding relatively too loud after you lower faders for the tracks that are bussed to those effects. The upshot: Give your master bus more headroom than you think it'll need.

Watch Your Crest Factor We all know that too much bus compression can make a mix sound harsh and fatiguing. But how do you know when your mix is too hot? While the best guides are your ears, meters that display your mix's crest factor will also alert you you've strayed too close to the sun.

Crest factor is the difference between peak and RMS (or average) levels. The lower your mix's crest factor, the lower its dynamic range and the harsher your mix will sound. A good rule of thumb is your mix should never have a crest factor lower than 6dB (and that's pushing it). If your project will be professionally

mastered, aim for a crest factor of around 10 to 12dB and let the mastering engineer tweak the dynamic range with his or her superior tools.

Excellent plug-ins that simultaneously show peak and RMS levels include the Waves Dorrough Meter Collection (a bundle) and Brainworx bx_meter. bx_meter also includes a dynamic-range meter that shows your crest factor in decibels (see Figure 1), relieving you from computing the difference between peak and RMS values. Instantiate Dorrough or bx_meter post-fader and after all other plug-ins on your master bus.

If you're using light or no compression on your master bus and your mix's crest factor is still too low, your drum tracks might be mixed too quietly or have insufficient attack. Assuming you have enough headroom, try goosing your kick and snare tracks or adding the SPL Transient Designer or Waves TransX plug-in to those tracks to sharpen their strikes (see Figure 2). As always, use your ears to gauge whether you've improved your mix or simply made the meters look better!

Hunt Down Distortion Every channel of your mix should have its meters set up to hold clips indefinitely (using infinite-hold mode). After you play through your mix, stop the transport and look to see if clipping occurred in any channel. Check every stage possible for the signal chain (pre- and post-EQ, pre- and post-dynamics and so on) and lower input or output levels wherever clipping occurred to prevent distortion on the next pass through. Just keep in mind that the meters for 32-bit (and higher-resolution) plug-ins may indicate clipping where none has occurred; they show "overs" to warn you that the output of your DAW's mixer (which might be constrained to 24-bit depth and lower headroom) might clip at its output.

For mixes with tons of tracks, the hunt for clipping can entail a lot of work, but it's worth it. A tiny bit of distortion on each of several tracks can produce an edgy or harsh-sounding mix that no amount of equalization and warming with tube-emulation plug-ins will fix. If you're pressed for time, at the very least check for clipping on non-percussive tracks such as vocals, string pads and organ; distortion will be most noticeable on sources such as these that produce high RMS levels. You can often get away with some clipping on trap drums; in



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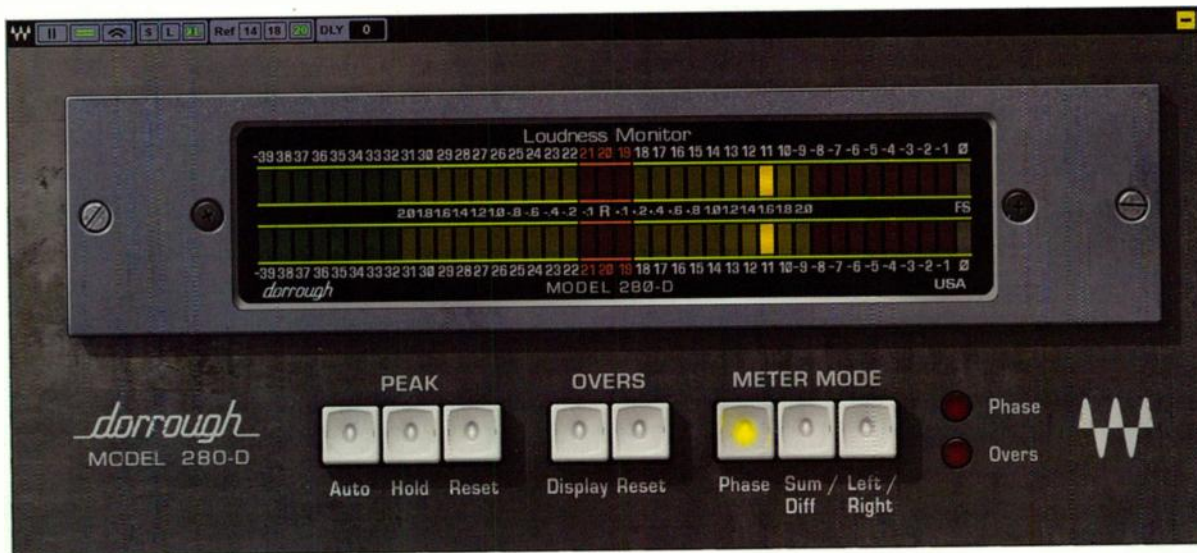


Fig. 3. The Waves Dorrrough Meter plug-in includes a phase mode useful for gauging the width and mono-compatibility of your mix. Readings consistently far to the right of center indicate a mix that is relatively narrow.

We all know that too much bus compression can make a mix sound harsh and fatiguing. But how do you know when your mix is too hot?

fact, subtle grit and rounding from mild clipping sometimes sounds great on traps (especially kick and snare).

Check the Width Mixes can sound too narrow if too many tracks are panned close to center, center-panned tracks are too loud, or your mix has too much bottom end. Bass frequencies tend to be highly correlated in left and right channels of stereo tracks; too much bass on a stereo track can therefore cause its image to narrow.

A phase-correlation meter is an excellent tool for checking the width of your mix. The aforementioned Waves Dorrrough and Brainworx bx_meter plug-ins each provide excellent phase-correlation metering (see Figure 3). If the meter spends most of its time close to the positive extreme of its range (far-right on a horizontally oriented meter), your mix is probably too narrow and trending toward a mono soundstage. Conversely, if the phase-correlation reading spends more than a brief amount of time to the left of center, your mix is too decorrelated; in that case, it will likely sound washy and it won't be mono-compatible.

For a mix that's too narrow, consider hard-panning one or more tracks, especially those with lots of high-frequency content (such as shakers or cymbals). Try thinning out bass frequencies on stereo tracks. See if lowering the bass guitar helps widen the mix without making it sound too bright or thin. Your phase-correlation meter should help you visualize when your mix is spacious enough. As when monitoring crest factor, place your phase-cor-

relation meter post-fader on your master bus and after all other plug-ins.

Use Stereo Imagers Prudently Another way to widen a mix is to use a stereo imager on the mix bus. Injudicious program-width enhancement, however, will lower the level of the kick, snare, bass, and vocals too much and make your mix lose punch. Instead of placing an imager on the mix bus, try widening individual stereo tracks instead. An imager can sound terrific on stereo tracks and auxes that contain a lot of ambience, such as reverb returns and room mics for drums. If your imager is multiband, try narrowing the bass frequencies to mono and widening only the highs; Ozone 5 Advanced includes a stereo imager that works great for this application (see Figure 4). As you work, check the mix bus' phase-correlation meter to make sure you're not fattening the cow too much.

Get the Bottom End in Proper Balance

The toughest aspect of mixing is getting the bass frequencies in proper balance with mids and highs. If your mix sounds too muddy and the kick and bass guitar can't be clearly heard, chances are that bass frequencies in *other* tracks are masking them. Try cutting bass frequencies in guitar and keyboard comp tracks (and any other tracks that don't need a big bottom) to make room in the low end of your mix for the bass and kick to voice more clearly.

If the bass guitar sounds plenty loud but the bottom end of your mix still sounds thin,



Fig. 4. Ozone 5 Advanced's multiband Stereo Imaging plug-in is an excellent tool for widening your mix's soundstage. Here, frequencies below 100Hz are narrowed to mono while highs above 10kHz are widened.

try lowering the bass track and boosting its bass frequencies. The same strategy often works for kick drum. In most cases, the bass guitar will benefit from heavy compression or limiting to make it ride at a fairly consistent level in the mix.

Of course, you'll never get the bottom end

of your mix in proper perspective if you can't hear it. Tweaking the bottom two octaves of a mix while listening to monitors with weak bass response makes about as much sense as painting a portrait with sunglasses on. It's critical to listen to your mix with a subwoofer or full-range monitors—and in an accurate room—to make

sure you aren't adding too much bass to the mix. If your speakers and control room aren't up to the task, check your mix on headphones that have flat and extended bass response.

It's equally important to make sure the bass and kick don't disappear when listening back on midrange speakers. Band-limited consumer proxies such as Yamaha NS-10M Studio and Avant Electronics Avantone MixCubes are great monitors for this purpose. Alternatively, see how the bass instruments sound on a home or car stereo, computer speakers, or a boom box. If you can't hear the kick and bass on these speakers, they're probably mixed too low. If kick drum hits clip the speakers on your boom box (set to flat EQ), the kick probably has too much bottom end.

Solo the Side Channel If you find yourself struggling to get enough bottom end on your mix and boosting the bass frequencies on your kick drum track isn't helping, your kick drum

easypeasyoptosqueezie

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might be out-of-phase. This is sometimes a problem when poor stereo kick drum samples are used in a production. The way to tell if this is the case is by soloing the side channel, using a plug-in such as the Brainworx bx_meter or bx_control V2 that provides mid/side monitoring. If you hear the kick drum's dry sound while soloing the side channel, your kick drum is out-of-phase and no amount of bass-EQ boost will give you the bottom end your mix needs. Adjust the phase on one channel of the kick sample or replace the sample with one that's in-phase.

Check Levels for Vocals and Guitar Solos To place the lead vocal in proper perspective, check your mix on midrange-y monitors that have weak bass response. (Listening to monitors with ample bass response makes the tests I'm about to describe more difficult; you want to use speakers that provide an isolated window into the midrange band, where vocals and guitars mostly reside.) While listening to your mix, confirm that the background vocals

aren't louder than the lead vocal. Also make sure overlapping guitar fills don't obscure any lyrics; ride the guitar's fader down in spots where it would otherwise mask the money track. Generally speaking, a guitar solo should not be louder than the lead vocal; if it is, the vocal will sound under-powered when it re-enters after the solo.

While the lead vocal is singing, turn your midrange-y monitors down to the point where they're barely audible. If the lead vocal disappears before the instrumental tracks do, it's mixed too low. Be sure to also check how the lead vocal sounds on full-bandwidth monitors. Many two-way monitors have crossovers that recede midrange elements such as vocals slightly into the background. Make sure the lead vocal can still be clearly heard on such monitors and on all other systems you have access to.

Keep Notes A great mix might require a few hundred or more dynamic adjustments to fader levels, EQ, panning, and effects parameters. Keeping mental track of the net effect of each

of these moves is a daunting task, and it's easy to miss the forest for the trees. When you think your mix is finally in great shape, listen back on all the monitors at your disposal and take notes of any problems you hear. Make a checklist of changes you'd like to make in a remix to fix those problems: "Boost the bass guitar's EQ around 1dB at 200Hz" (if it sounds too thin on midrange-y speakers), "dip the lead guitar solo on the last note coming back into the final chorus" (if it obscures the vocals), and so on. Then mix the song again, incorporating the ideas in your checklist.

Listening back to the mix that you've tweaked, you're likely to hear additional problems you didn't previously notice or that were introduced by the new mix moves. Make a new checklist and mix again. Repeat the process until you have no more complaints. Your mix is now killer. ■

Michael Cooper is a mix and mastering engineer and a contributing editor for Mix magazine. You can hear some of his mixes at myspace.com/michaelcooperrecording.



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Approaching Club Bookers

Insider tips from a veteran talent buyer

BY KYLEE SWENSON GORDON



SINCE 1996, Jennifer Tefft has worked as a talent buyer and promoter for Los Angeles clubs such as Bootleg Theater, Martini Lounge, Small's K.O., and Club Spaceland (renamed The Satellite in 2010), as well as for L.A. festivals Poptopia and Sunset Junction. Tefft started putting on shows during her college days at Taylor University in Upland, IN, then moved to L.A. and eventually worked the door for Spaceland in 1999.

As the club's booker from 2000 onward, she brought in bands that lived up to the excitement of Spaceland's very first bill in 1995 (Foo Fighters and Beck), including Arcade Fire, Weezer, the White Stripes, the Shins, Spoon, the Black Keys, Keane, and thousands of other bands. She also helped break Silversun Pickups, Rilo Kiley, and Cold War Kids. And in her current role as talent buyer for The Satellite, she's booked Gotye, Minus the Bear, Jackson Browne, Daniel Lanois, and many more.

For bands and managers looking to book a show at an established club such as The Satellite, there are a few things to keep in mind when lining up an event, promoting it, and playing it—particularly if you want to be invited back. Here are a few tips from Tefft on how to get a good conversation going with a sometimes-elusive (read: busy) booker.

How does a band get on your radar?

I find out about new bands through several different sources: agents, managers, other bands, reading about them, or hearing them on the radio, or by bands just reaching out to me through the booking email address. The best way for any band to stay on my radar once they have a confirmed show is to promote and draw.

How should a band or its manager connect with you about booking a show at The Satellite?

The best way for a band or manager to approach me is to take a night that's wide open and put a whole show together, or give me a very specific idea of a show they think they fit on. I like to book headliners before I book support, so if a band isn't big enough to headline and I've never seen them live before, there's a good chance I won't know where to put them unless they give me some direction.

Once a show is booked, what recommendations can you make for a band to maximize their draw for the event?

A band should use every method possible to promote: posters, flyers, Facebook, Twitter, email blasts, promotional videos, cross promotion with the other bands on the bill, plus personal emails and texts. Most clubs have a press list they will send upon request, and most will also let people come in the club for free if they are coming in to promote an upcoming show. Every person in the band needs to be involved. There should not be just one or two members carrying the weight of promotion.

How often should a band play in a market such as L.A. in order to keep building their draw there?

When bands are first getting started, it's fine to play every week or two, but after two to three months of that, they need to back off a little. Overplaying is a common habit of most local artists. I usually recommend that an act not play more than once every two to three weeks. If a band has reached the level where they can headline the club, particularly if they just completed a residency, they should be alternating between opening for national acts and headlining or co-headlining strong local shows.

On the night of the show, what can a band do to ensure that the night goes well and that they'll be invited back to The Satellite?

The best things a band can do are to show up on time, be polite and courteous to the club staff, and follow the club rules. They should not do anything stupid like try to sneak in outside booze or underage girlfriends, get in fights, graffiti the bathrooms, or lock security out of the backstage so they can engage in illicit behavior. If they sound great and have a good draw, that helps, too. ■



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Fig. 1. Screen A: In this drum loop, I want to copy the bass drum hit on the “and” of 2 to beat 3. I select and separate the hit (screen B), then drag-copy it to beat 3 (screen C), making sure that snap-to-grid is on in my DAW.

Make 'Em Your Own

Editing tricks for customizing audio loops

BY MIKE LEVINE

AUDIO LOOPS are great tools for music production, because they typically offer high-quality recordings of pro-caliber performances, and they're commercially available for virtually any instrument, and in a wide range of styles. Beyond their obvious role in loop-based genres like electronica and hip-hop, loops are also handy for producers of rock, pop,

country, and other musical styles when—for financial, gear, talent, or space reasons—a real instrumentalist can't be brought in. Acoustic drum loops are particularly useful, because so many personal studios are not equipped for drum recording. Drum loops offer realistic-sounding performances that are not easy to achieve with MIDI drums.



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You can create fills in loops that are just grooves, by copying and pasting individual hits.

For all of their pluses, audio loops do have some disadvantages: First, you're limited to the performances available in the loop collection; you can't get a custom performance like you could from a studio musician. Second, that loop library that you bought is also likely to be owned by hundreds or thousands of other musicians, so by using its loops, you run the risk of your music sounding generic.

You can mitigate these disadvantages somewhat by editing your loops. It's not as easy as with MIDI loops, but audio loops can be changed and customized to some degree to fit your song, beyond simply adjusting the tempo and pitch.

Get Rhythm Often, I'll find a drum loop that has the basic feel that I'm looking for, but I'll want to modify it to fit my song better. For instance, the loop might have a kick or snare hit that I would like to move to another part of the measure. Moving individual drum hits within a loop is typically pretty easy. In Figure 1 on page 82, the kick hitting on the "and" of 2 is copied and pasted so that it also occurs on beat 3.

To move an individual hit, turn off your DAW's snap-to-grid function, and cut the left-hand boundary of the hit at its initial transient. Next, cut at the end of the hit, thus separating it entirely from the material around it. Then put your snap-to-grid back on, and slide the hit—or drag-copy it if you want the original to stay in place—to the new location. Next, add short crossfades to the boundaries of the hit you've moved.

You can run into trouble when there are other elements in the loop playing at the same time, or ringing out noticeably over the section you're trying to move. Luckily, there will almost always be other instruments playing along with the drums in your mix, so slight glitches from your edits will often be covered up.

If a glitch or drop-out is audible in the mix, find a short section of the loop where nothing is hitting or ringing out. Paste it to fit the drop-out, adding crossfades at its boundaries. Hits that don't ring out, such as kick drums (and frequently, snare drums), are usually easy to move around.

You can create fills in loops that are just grooves, by copying and pasting individual hits. For instance, you can often create a

realistic-sounding flam by layering two snare or tom hits, with one hitting just slightly later than the other.

If you want to completely change the feel of your loop, and your DAW has an audio quantize feature, try adding swing to a straight-eighth-note loop, or vice versa; or experiment with the groove quantize to subtly alter the feel. Don't forget to make a safety copy of the original loop before doing any destructive editing. Using your DAW's automation or gain features, you can also alter the dynamics of individual hits or notes within a loop.

Many drum loop collections also include one-shot samples of the drums that were recorded. These can be quite useful when editing loops from that library. Use tom sounds to put together a fill, add crashes, or just get a snare sample that's totally in the clear. It often works better to put these one-shots on a separate track so that you're adding their sound to the drum part, as opposed to pasting them into the loop, where they will replace the sound of the area where they're pasted.

Take Note Loops of pitched instruments can also be altered; single note parts are easier to work with than chords, but it depends on the loop. You can even separate a note in a loop and transpose it to alter the melody.

Transpositions of more than a few semitones usually sound unnatural, however. Whether moving or transposing notes, be careful that your changes don't make the instrument in the loop do something that sounds inauthentic (unless that's your intention).

Part of the Process One way to make loops sound less generic is to process them—try subtly pitch-shifting a drum loop (without changing its tempo) or compressing it with a "character" compressor on an extreme setting. Add a flanger to a bass loop, or telephone EQ to a vocal loop—the possibilities are endless.

Don't feel boxed in by the way a loop sounds in its original form. Experiment with editing it—you may very well be able to change it to fit your song, and make it your own. ■

Mike Levine (mikelevine.com) is the former editor of Electronic Musician. He recently authored and produced Pro Tools 10 Course Clips Master, a video tutorial DVD published by Course Technology PTR.

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PreSonus Studio One Professional 2

Make mastering and album assembly more efficient

BY CRAIG ANDERTON

OBJECTIVE

Integrate album mastering/assembly with song editing

BACKGROUND

Studio One Professional 2 has separate pages for multitrack recording (Song Page) and album mastering/assembly (Project Page). However, these are integrated—if you edit a Song that's incorporated in a Project page, the older Project Page version can be remixed and replaced with the newer version automatically.

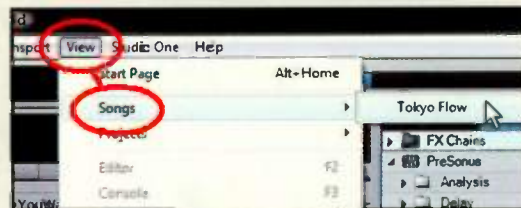
TIPS

■ Step 2: You can edit a Song referenced in a Project Page at any time, as long as it still exists in its original file path. Otherwise you'll be asked to locate its current location.

Step 1 Drag a Song file from the browser into the Project page's Track Lane (as shown), or into the Track Column. Repeat as needed to assemble an album.



Step 2 If after listening to the complete album you decide a Song in the Project Page needs changing, you can edit it. Choose the Song Page and if necessary, open the Song file.



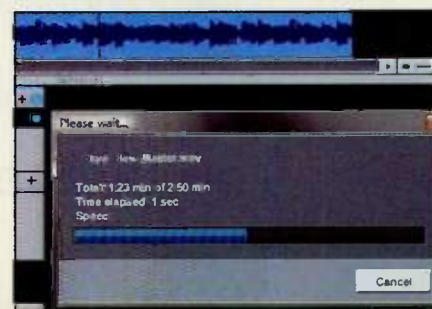
Step 3 After editing the Song, save the new version.



Step 4 Return to the Project page; note the red button in the Track Column and Track Lane Song labels. This indicates the song has been revised.



Step 5 Click on the red button to remix the Song, and replace the version in the Project page with the new version.



Step 6 The red dot in the Track Column and Track Lane Song Labels has turned blue, indicating that the edited version has been remixed and updated. A dialog box indicates the time that was required to update the file; click on OK.



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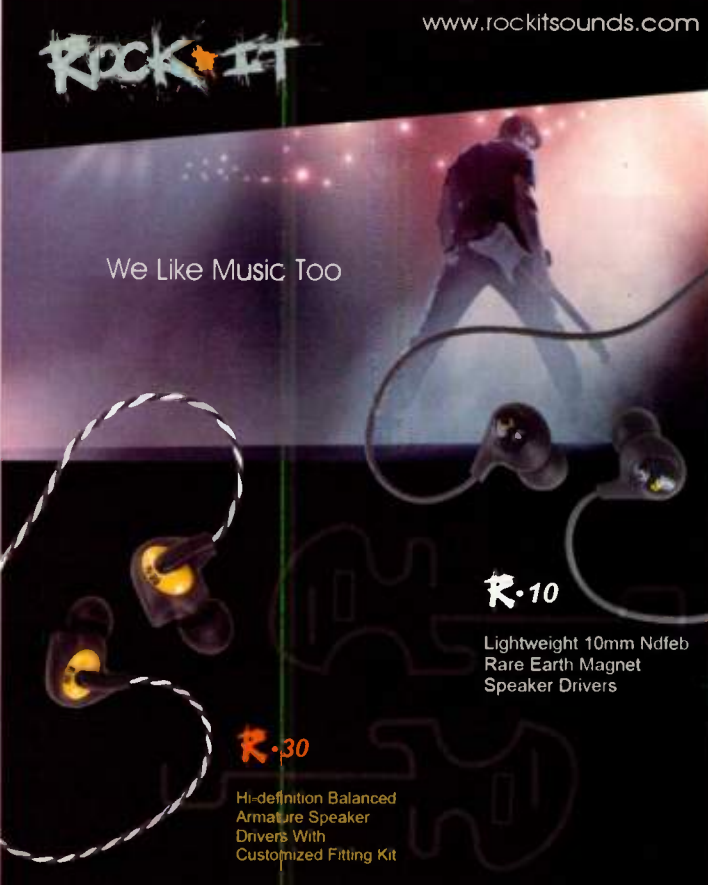
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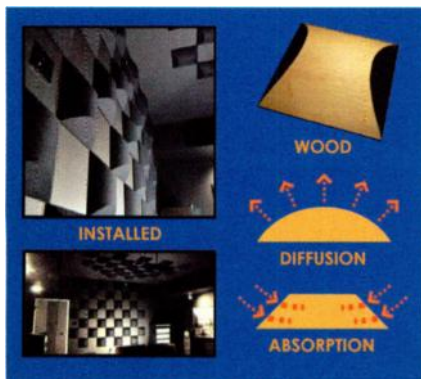
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