

Sneak Preview: Event's New Opal Near-Field Monitors

# RECORDING

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### 14 New Product Reviews:

M-Audio Studiophile Q40 Headphones  
Propellerhead Reason 4  
Samson CL2 Mic Kit  
TC-Helicon VoiceTone Pedals  
Virsyn Reflect



Zoom H2 Handy Recorder  
and soundware by Big Fish Audio, CoolSFX, and Rob Papen



**Voice**

Musicologists point out that the human voice has always been the supreme instrument, the one that the other musical instruments have been striving to emulate throughout history. Really? When the earliest percussionist, Mr. Thal, found his groove on that hollow log outside their cave, provoking Mrs. Thal to plead, "Enough already, Neander, you're giving me a headache"—was he really emulating a human voice? And who would want to admit that theirs was the voice that bagpipes emulate, when we all know that pipers march while playing to get away from their unbearable noise...

But despite such aberrations, it is true that the human voice is the ultimate attention-getter, relegating instrumental sounds to supporting roles as soon as the voice appears in a mix. This innate reaction of ours, wanting to pay attention whenever we hear a voice, is surely one of the secrets behind the success of rap where the beats are sometimes so sparse and generic as to be interchangeable, leaving the stage entirely to the rapper's voice.

Most vocal projects are more complex than that. To help you get a firmer grip on vocal tracking and mixing techniques, this month we look at different ways of dealing with the voice in the many types of recordings that involve vocals.

For starters, Alex Case spells out how and why the voice can and should be out front, in your face, and he harks back to those legendary pioneers of the Equal Loudness Contours, Messrs. Fletcher & Munson. How is it that a simple volume knob always doubles as an eq knob? What crooked curves do we hear when we think what we hear is flat? He tells you.

Would you like to kick in and out a bunch of effects on your voice while you sing? Including harmonies? From stomp boxes that put your guitarist to shame? Now you can, courtesy of TC-Helicon.

Frank Wright runs down a list of vocal project types that you might want to pursue to broaden your horizons, and as he shows, it's not always just about singing, either—your gear can pay for itself nicely if you use it for spoken-word projects that often involve long hours and can pay handsomely.

Al Stewart's voice and delivery is not mainstream—half singer, half story teller, he deserves the special attention that his producer Laurence Juber gave him during the production of Stewart's new CD.

David Alexander runs down a checklist of steps to execute when mixing a pop vocal. Celeste Lear shares her ways of creating her idiosyncratic vocals that involve, among others, some vocoding, which is also a topic that Rick Barrio Dill addresses in his music genre-merging column this month. Mark Waldrep of AIX Records assures us that no overdubbing and no iso booths were used on the many high-resolution surround recordings of his, where singers shared the tracking room with instrumentalists. All in there, all at once, listening to one another, and the outcome is simply gorgeous. Isn't it good to know that it can be done?

Speaking of gorgeous, our esteemed colleague Mike Metlay had good things to say about the bikini girls that presented the new Event speakers he went to see unveiled in Las Vegas. Luckily, he remembered the product, too, and his report is on page 96.

As this goes to press, here in Boulder we're having the longest record-breaking heat wave in decades—can you tell? We hope your summer is as productive as ours is hot, and we wish you—

Happy Recording.

*lzl*

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COVER PHOTO BY JUSTIN PEACOCK  
COVER DESIGN BY SCOTT SIMMONDS

By Rick Barrio Dill

# THE BEST OF BOTH WORLDS

## Part 3: Vocoder/Talkbox Effects

For most of the material that I work on and listen to, of all the elements that I focus on and obsess over, the vocal is almost always at the top of my importance list. I usually say that "judge and jury" falls on the vocals first. Most "non-musician" listeners (which is at least 95% of our audience) couldn't care less about guitar tones and what type of overhead mics the engineer used.

### Let's hear it for the lyric

Sure, these details are important as part of the total, but what most listeners know almost instantly (and often subconsciously) is whether or not they like the vocalist/front-person, and if they can "feel" or relate to what that person is saying. Whether the music we are talking about is Rock, Pop, R&B or Hip-Hop, all the effects and trickery in the world will pale in comparison to a

vocal or delivery with conviction, tone, and meaning, sitting on "top of the track".

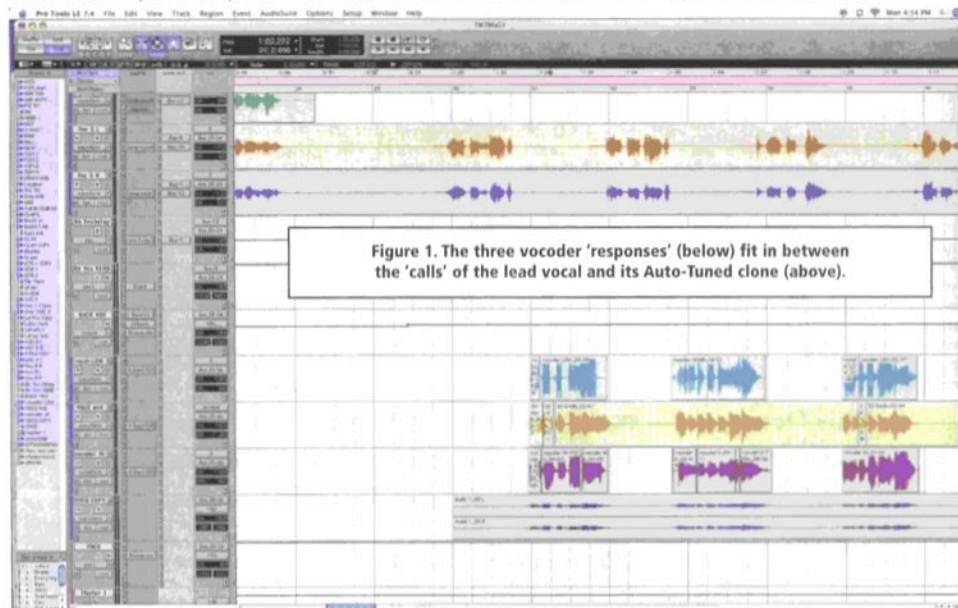
Taking all this into consideration, when I listen to music or work on a mix, I never want to have a problem hearing or deciphering the vocal. Unfortunately, there is often so much emphasis put on everything other than the vocal that a good chunk of potential audience is lost almost instantly from what might be amazing material. The audience never gets a chance to make that connection.

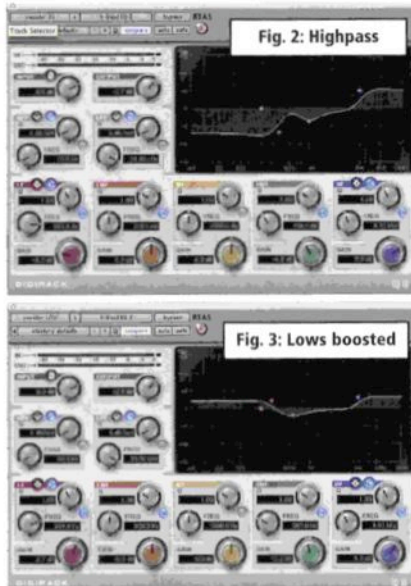
Turn on the radio today and you almost can't get away from Auto-Tune and overly effected vocals. There is a huge trend now to do what is sometimes called the "Cher" effect and overly tweak Auto-Tune to have the resulting robotic voice on what seems like every Pop/R&B track on the radio. Even if it drives you nuts sometimes, take a closer listen to some of these tunes for fun.

Most of the time, the vocal is way on top of the track and with respect to this Auto-Tune effect (if it is done right), the lyric should never be lost. This is a very important element of recording "vocoder" type vocals, and not one to be taken lightly if you work with these types of vocal effects.

People seem to call this "Auto-Tune/Cher" effect a "Vocoder" nowadays, but to be fair, this is not the same as the classic vocoder. I have always loved vocals with classic vocoder or robotic effects on them. Back in the day, great hits like "FunkyTown", "Let's Groove" and "No Parking on the Dance Floor" were a few great original examples of killer vocoder recordings.

Then seemed to come the "Talkbox" which moved effected robotic vocals in an even different sonic direction. The undisputed king of this has to be Roger Troutman of "Roger & Zapp" who completely changed the game and revolutionized the talkbox using synthesizers (not guitar!) on countless funk and soul hits and then of course later with Dr. Dre and Tupac on the hit "California Love".





The point here is that these are great examples where the effect is screaming out the speakers, but so is the lyric. It never gets lost. From my experiences, this can be much harder to pull off than you might think.

#### The case study

On one of my favorite Funk/Rock Starbaby tracks ([starbabyband.com](http://starbabyband.com)) called "Take What the Music Gives You", we had a ton of fun with a box called the Talker made by DigiTech. After countless experimentation runs, the most useful modes on it for our purposes were the "talkbox" and "autotalk" settings. After our singer Mike Dornberger had laid down the un-effected vocals, using a keyboard bass synth as the trigger device, we then laid down the "vocoded-response" vocals through the Talker over 3 separate octaves of the melody producing 3 different vibes (low, medium and high). The Downloads page on *Recording's* website has five MP3 clips so you can hear how this effect came together.

I loved the robotic effect of the low-register vocoded part (MP3-1), but that seemed to lack the bite of the two higher-register voco-tones (MP3-2). Even then, the lyric was still muddy as a blend. See Figure 1.

After some basic highpass eq'ing and high-end shelving for my higher-register "bite tracks" (Figure 2) and some low-end boosting on the body lower tracks (Figure 3), the combined three vocoder tracks (low, medium, and high register) were still missing the lyrical clarity that I was looking for.

I then decided to hyper-Auto-Tune a regular vocal to see how that sounded (MP3-3). This gave a great effect and when mixed in with my three-vocoder stack... presto, I got just the blend I was looking for (MP3-4). The end result was a cross between lyrical clarity and groovy robotic effect.

You can check the last MP3 (MP3-5) and hear how it all came together in the track, or check [www.starbabyband.com](http://www.starbabyband.com) for the whole tune.

With all the effect options we have available to us today, I learned real quick to experiment and have fun, but keep that vocal on top!

Rick Barrio Dill ([dill@recordingmag.com](mailto:dill@recordingmag.com)) of Shark Eating Dog Productions performs and produces while based in his Upstream Studios in Los Angeles, when he's not touring with bands like 2nd Day Crush. Check him out at [www.myspace.com/allmyspacegimmick](http://www.myspace.com/allmyspacegimmick).

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