

## MY PERSONAL PICKS THE RIGHT TOOLS FOR THE JOB

Although highly subjective, the stuff I like for vocals still gets the job done better than anything else I know.

by Cookie Marengo

To get a great performance, you need to be confident of your tools. Before the artist walks into the studio, you should have a handle on what mic you're going to use for the recording. If there's enough of a budget, I prefer to use a **Ditrik DeGeer** mic. These are incredible copper or brass mics running about \$18,000 each and last I heard, only 27 have been made. Most of the time, I place them about 18 inches or more from the vocalist. Aside from sounding amazingly true, the field it captures allows the vocalist to twist and turn their heads with less issue in off-axis sound.

If you're not familiar with what off-axis sounds like, take a cardioid mic and have a friend count to 1,000 while moving in a circular pattern around the mic. As the sound hits the capsule of the mic with less directness, you start to hear the bass frequency disappear. It's valuable to understand what this sounds like 'cause taping the toes of the artist to the floor can be fun, but usually problematic.

Artists will often move off axis, especially during the great take. You might be able to compensate later in the mix, but sometimes you can hear the problem coming and avoid the situation entirely. Mention to the artist to check their position . . . before each take if you need ('cause you've taped the floor, not their toes, for them to remember where to stand).

I'm of the mind that one should be able to achieve at least a tolerable vocal sound with proper mic placement. If popping Ps and sharp Ss are a problem, you might find an omni mic that can often reduce those effects. The omni position can sometimes be as close as a click away on some mics (the pattern looks like a circle on the mic or box the mic is plugged into). The omni position also tends to reduce the bass frequencies coming through the mic. In most cases, that won't be a problem. Adjustments can be made by bringing the artist closer to or farther from the mic. Generally, the farther



away the artist is from the mic, the less bass response.

My other choices for vocal mics are **AKG C-12s**, **Neumann U-47s**, **U-67s**, **U-87s**, and sometimes **SM-7s**. For years, I used **B&K 4011s** or **12s**, and sometimes still do. They are unconventional for vocals but can stand a lot of air pressure without creating distortion and the sonic qualities are quite stunning. In just about any mic shoot out they would win, hands down. One day, I needed a change in my palette and moved on to other adventures for recording vocals. I have used **SM-7s**, **RE-20s**, **AKGs**, **Telefunken**, **SM-57**





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absolutely unreal'

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and **58s**, ribbon mics and "Mr. Microphone," which cost \$4 back in the day. . . .

There are so many choices out there, it's best you find something you like, learn its character and know you can fall back to using it on 90 percent of your sessions. If you're recording at home, rent a few mics first, decide what you like and buy it. One can't go wrong with a U-87 most of the time. If you're on a budget, the most versatile mic for about \$100 is an SM-57, in my opinion.

#### THE PREAMP

Next to consider is the preamp. For ease of use and great sound, I can always rely on the **Millennia solid-state preamps**. The Millennia preamps are quite stunning in their huge frequency response. Lately, I've taken a liking to the **Manley VOXBOX**, which is quite incredible. It has a very human character and natural compression with its tubes. I'm also a fan of **Neve** pres. These are all quite pricey items to purchase. More than mics, I have found that spending the money on the preamps can save me a lot of headaches later. Cheaper preamps will be noisy and not have nearly enough head room. Without headroom, you're going to distort your recording. If you're on a budget, see if you can borrow or rent the gear for a day to test out with your vocals. If you're a powerful singer, save up your money and buy the best you can.

#### THE CABLE

The cable from the mic to the pre can also have a huge effect on your sound. I've been using a silver cable from Jean-Marie Reynaud (a French manufacturer who built the cable for the French aerospace industry). It is quite expensive, but the full frequency response is there. **Mogami** and **Canare** are also good cables, though one exceptional cable in your collection can be used on almost every overdub, so it might be worth the expense for one. If you are building your own cables, make sure your cables are in phase.

#### THE JOB

I've adopted many of the techniques I've used with analog tape and Dolby SR to the digital mediums for recording. I don't compress to the recording medium, I avoid EQ and try to cut as clear a path from the preamp to the recording medium as possible. This means bypassing the board whenever possible. In my control room, we've got it set up to record direct to the medium and we monitor the outputs only. At the output stage, we'll add reverb, compression, and whatever else we need knowing that the sound to tape is clean and can be manipulated in the mix.

Many engineers also prefer to record with effects to the recording medium. I've opted for flexibility in the mix stage and avoid any possibility of over compression in

## QUICK PICK

**MXL V76T MIC** [\$299, [mxlmics.com](http://mxlmics.com)]

Figuring out which microphones to buy can give you a headache almost as severe as the anxiety from many mics' sticker shock. The good news is that if you know where the great deals lie, you don't have to subsist on instant ramen for the rest of the decade.

The MXL v76t microphone is one such great deal. Sure, something legendary like the Neumann U87 will probably blow it away, but my personal studio doesn't happen to have one of those. And frankly, I could take this and have enough left over for a down payment on a new car.

It's a condenser mic with a 1" diaphragm and a tube amplifier circuit. What this means is that you plug the mic into a powered box, and then plug that box into your recording interface. This is supposedly what gives the unit its smooth response. Being simply a unidirectional microphone, the v76t isn't an all-purpose item, rather being designed to record singing or a single acoustic instrument.

We used the v76t for vocals, and they came out nice and steady. There was no background noise, the results were clear and warm, and the recordings were even and very easy to EQ. We put the v76t up against some mics that were twice the price, and the results were just as good. Sounds like a winner. So now you can even save money on aspirin. —Roberto Martinelli



the recording. Because I like to give the vocalist and other band members a compressed vocal in the headphone, that sound can be quite different than what I would use in the mix. (If possible, monitor as close to the final mix when you are cutting the vocal track. This will save you many hours.)

But when mixing a vocal, I'll generally run the output directly to a Millennia Origin channel and return to the board. If I need EQ, I'll use it there and often use the compression, which is quite clean, as a first stage of limiting. From the direct out of the board channel, I'll run it into a compressor, like the **Universal Audio LA2A, LA4A, or 1176**. I have used other compressors, but have settled on these for vocals . . . unless there's a **Fairchild** lying around, which often there isn't. I don't run the compressors in the inserts. Instead, I run it as a wet and dry effect so I can adjust the amount of compression relative to the original sound.

Compression can often remove some of the high and low frequencies. Making a delicate adjustment between the wet and dry signal can give you a more realistic sound while keeping the vocal in check in the mix.

For reverb and delays, you can check

the article in the June issue ["In Search of . . . the Perfect Speaker," page 36]. My tendency is to use a more realistic sound that comes with a good performance and great recording gear. I will combine reverbs and delays for effects and tend to use two or three varying qualities of effects to give a natural feel. **EQ**



## Mahajan Says



The studio had a pair of R-121's when we were tracking Yeah Yeah Yeah's in 2002, so I put them on the electric guitars and they stayed there for the whole record. Since then I always use them on guitar amps; they're full and detailed without accentuating the harsh stuff. I'll blend other mics to get some of that hyped attack when I want it, but the R-121 is usually the meat of the guitar sound.

With The National, two 121's on the piano gave me the best piano sound that I've gotten. You can really hear it on "Daughters of the Soho Riots." I'm moving my Royers around a lot now and have gotten great results on just about everything, including cello, vocals and bass amp. They capture sound in a way that fits right into the mix.

**Paul Mahajan**

(Engineer - Yeah Yeah Yeah's, The National, GMFTPO)



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