There's the conventional. Now what about the advanced?

We talked to three drummers whose approaches to drum miking are as different as their musical odysseys. First, Rascal Flatts' Jim Riley. Next, ex-Pat Metheny Group sideman and groundbreaking percussionist Paul Wertico. And finally, British touring band favorite Simon Phillips, currently living in the USA working on his own solo projects.

Shure enthusiasts all, here's what they had to say.

**Jim Riley**
Bandleader, Rascal Flatts drummer

Jim was born in Boston, Massachusetts and from an early age, showed real interest in music. He began his formal studies of percussion at the age of twelve, the same year he began singing with the Youth Pro Musica choir. In high school, Jim studied with Boston Symphony percussionist Arthur Press.

He attended the University of North Texas, where he studied drums with Ed Soph and timpani with the Dallas Symphony's Kal Cherry. In 1995, Jim moved to Kansas City. While recording with local guitarist Jeff Scheetz, he took a job with Kansas City Drumworks, building and selling custom drums. There, Jim began his long relationship with The VPR Creative Group as a writer and performer with the Sticks of Thunder percussion ensemble.

In 1997, Jim made the move to Nashville. Less than a year later, he was playing with country artist Mark Chesnutt and outlaw rocker Hank Williams III. The real turning point in Jim's career came in 2000, when he took the job as drummer and bandleader for Rascal Flatts.

Jim is currently on Rascal Flatts' "Unstoppable tour, which is expected to play to well over a million people.

"With Rascal Flatts, I'm playing a large drum set, so as you can imagine, we use a wide array of microphones to capture my onstage performance. I worked closely with Jon Garber, our FOH engineer and Stewart Delk, our monitor engineer to pick the right microphone for each unique application."

**Snare**

"On the snare we use two mics: an SM7B on top and SM57 on the bottom. We decided to go with the SM7 because of its ability to capture both low and high-end frequencies with clarity. The '57 on the bottom is perfect to pick up some additional 'crack.' We also use the '57 on our auxiliary snare and it sounds great."

"The '57 on the bottom is perfect to pick up some additional 'crack.' We also use the '57 on our auxiliary snare and it sounds great."

**Bass/Kick**

"We use two mics on the bass drum: a Beta 52A and a Beta 91. They are both great mics individually, but used as a tandem, the '91 picks up the snap and the '52 (placed just inside the hole in the resonant head) brings the big low end."

**Toms**

"On the higher toms we use Beta 98s. They are the absolute standard in live drum microphones. And they work great in the studio as well."
We wanted to match the thunderous sound of our kick on our floor toms, so my initial thought was to go with Beta 52s. Since we were using the Beta 98s (which are condensers) on the high toms, Ryan Smith at Shure suggested the KSM27. That was a great call.

**Hi-Hat/Cymbals**

"On the hi-hat and ride cymbal, we use KSM109 (editor note: this model is discontinued, it's now the KSM137). It does a great job of delivering the complex tones of my hi-hat and ride with stunning clarity."

**Mics for Other Apps**

"We use an SM27 to mic the gong. We top off the whole drum mix with a VP88 stereo microphone placed overhead, directly above the snare in the middle of the kit. It does a great job of picking up the cymbals and gives us the entire drum set a fantastic stereo sound."

**Vocals**

"I use a Beta 56A and an SM58®. We use the '56 as my vocal mic because of its ability to reject unwanted noise. In our case, that's the drums! The '58 is used as my talkback mic - it can only be heard by the band, sound crew and video director. As bandleader, it's just critical for me to be able to communicate with the band and crew in case any problems arise or quick changes need to be made to the set. It's not a glamorous job for a SM58, but it's an important one."

**Personal Monitoring**

"The final and most crucial component to my setup is my personal monitors. The SCL5 earphones are by far my favorite. They deliver my mix with exceptional clarity and they're able to withstand life on the road."

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**Shure Model Lexicon**

Artists refer to Shure microphones the same way you probably do. A "58" is probably, as our legal eagles would describe it, an SM58® microphone. A more colorful mention of a Beta 52®A drum mic has it this way – a B-52.

Your loyal editorial staff knows that you probably won't believe these drummers talk about Shure mics in terms that would pass legal muster, so to please everyone, here's a conversion table.

<table>
<thead>
<tr>
<th>What it is</th>
<th>What they call it</th>
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<tbody>
<tr>
<td>Beta 52®A Kick Drum Microphone</td>
<td>Beta 52, B-52, 52</td>
</tr>
<tr>
<td>Beta 56®A Snare/Tom Microphone</td>
<td>56</td>
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<tr>
<td>Beta 91 Kick Drum Microphone</td>
<td>91</td>
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<tr>
<td>Beta 98D/S Snare/Tom Miniature Microphone</td>
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<td>SM7B Instrument Microphone</td>
<td>SM7</td>
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<tr>
<td>SM27 Vocal Microphone</td>
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<tr>
<td>SM57 Instrument Microphone</td>
<td>57</td>
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<tr>
<td>SM58® Vocal Microphone</td>
<td>58</td>
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</table>

**Oddly enough, everyone gets the KSM line exactly right**

<table>
<thead>
<tr>
<th>KSM27</th>
<th>Large Single-Diaphragm Microphone (Discontinued)</th>
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</thead>
<tbody>
<tr>
<td>KSM32</td>
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</tr>
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<td>KSM44</td>
<td>Large Dual-Diaphragm Microphone</td>
</tr>
<tr>
<td>KSM109</td>
<td>Cardioid Instrument Microphone (Discontinued)</td>
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<tr>
<td>KSM137</td>
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**Paul Wertico**

Session player, solo artist, innovator

One of the most versatile and musical drummers in music today, Paul Wertico became a member of the
Pat Metheny Group in 1983. During that time he appeared on ten CDs and three videos with Pat and has toured the world many times. He picked up seven Grammy Awards, won numerous magazine polls, and received several gold records. Paul left the PMG in February of 2001.

When Paul is not touring, he divides his time between studio work, producing, session playing, and leading his own groups. He currently serves on the percussion faculty of Northwestern University and the jazz faculty of the Chicago College of Performing Arts at Roosevelt University.

Paul was voted “Fusion Drummer of the Year” in DRUM! Magazine’s Reader’s Poll and he’s placed in the “Top Five in the Electric Jazz Category” in Modern Drummer magazine’s Reader’s Polls. Paul also has his own “signature” drum sticks: the Paul Wertico model - TX808W, as well as new “signature” products that he invented called “Tubz” and “KidzTubz”, all made by Pro-Mark.

Paul Wertico’s mic setup and tips:

"At my home studio (Rat Howl Recording), my engineer Brian Peters and I love to constantly experiment to find not only great traditional sounds, but also new non-traditional sounds. "

**Snare**

"A cool trick I learned while recording with legendary engineer/producer Reinhold Mack (ELO, Queen, Rolling Stones) is to mic the snare drum from the side of the snare shell. We've tried this method with multiple different microphones (including the trusty SM57, which we've used on the last few recordings) and have gotten great results."

"Instead of putting a mic on the top and the bottom of the snare drum, balancing them with each other, and then sending them to a bus to add any EQ or compression, we can just use one channel to get the entire snare sound. It really brings out the sound of the drum itself, with just enough of the snap from the snares and almost none of the ringing overtones coming off of the top head. It also gets a very nice rim click sound. We usually position the mic an inch or less away from, and perpendicular to, the surface of the shell (making sure to avoid the drum's air vent hole)."

Overheads

"We most often use a pair of KSM32 microphones with the low end rolled off."

"Between different styles of music, bass drum sounds can vary a lot."

**Bass/Kick**

"Between different styles of music, bass drum sounds can vary a lot. (In fact, just describing the drum as either a “bass” drum or a “kick” drum, can tell you a lot about what type of sound you're going for.) Of course, most of that will have to do with how you tune and muffle the drum itself, but every type of microphone will capture different characteristics of the sound.

One of the best bass drum sounds we’ve gotten has actually been with the SM7B microphone. It's often neglected as an option for a bass drum mic because of the number of other things it does so well, but this mic gives a deep, punchy sound that might be exactly what you’ve been trying to achieve. We usually place it on the beater side of the bass drum in conjunction with another bass drum mic we normally use, like the Beta 91 or the Beta 52A. The SM7B also sounds great when placed by the front head. Again, it all really depends on the type of sound we're looking for and the type of music we're recording."

**Toms**

"For toms, we use a set of Beta 98D/S (or sometimes a set of Beta 56A)."

**Hi Hat**

"After recording a number of records with a hi-hat microphone (usually a SM81), we’ve rarely, if ever, ended up using it on the final mix, so sometimes we've stopped even putting one up. Usually we've found that the overheads capture a very natural hi-hat sound by themselves."

**Other Miking Apps**

"We've also recorded the drum set with Pro-Mark "X-Mutes" still on the drums and cymbals, as well as using various muting devices and "found sounds". We'll sometimes also use the May Internal Drum Miking System that's inside some of my drums and combine those sounds with the standard miking techniques."
Simon Phillips
Touring pro, solo artist

Simon’s professional musical career began at the early age of twelve, performing and recording with his father’s - Sid Phillips - Dixieland band until he turned sixteen.

With an offer to play in the musical Jesus Christ Superstar, his path was marked and Simon soon became one of London’s most celebrated session drummers. In his early twenties, he was well on his way to having a musical career nothing short of brilliance. To date he has toured and recorded an “A” list of bands and performers: Mick Jagger, The Who, Jeff Beck, Joe Satriani, Tears for Fears, Judas Priest, Roxy Music, Michael Schenker, Nik Kershaw, Pete Townshend, The Pretenders, Whitesnake and many, many more.

In 1992 Simon moved to the US. He was asked to join Toto for their world tour and remained a full time member until the band dissolved in 2008.

Expanding his career from drumming to writing solo projects, Simon recorded his first album “Protocol” in 1988 and followed it up with five more critically-acclaimed albums. Another facet of his far-ranging musical career? Producing and engineering.

Snare

“I use an SM57. I prefer it to the Beta 57. Nine times out of ten, I will reverse the phase when listened with the overheads. I like to play on a wooden surface and often encourage drummers I am working with to do the same. I am sure this contributes to the phase issue but it seems to work just fine. I rarely use a mic underneath the snare drum. This really messes with the dynamics of the player - but occasionally I will use a mic pointed to the side of the shell if I really need some more snare. It depends on the player and the sound he or she wants to get.”

Bass/Kick

“I use a Beta 52A, which is mounted on a custom-built clip assembly inside the drum. I think the best position for a kick mic is off center. I place mine around 4” from the shell facing directly towards the batter head.

The distance is the main area of experiment and that will depend upon the type of head used and the tuning and the playing. I usually use closed front heads so the mic has to be inside the drum enough not to hit the front head. However if there is a hole (which I make sure is lined up to be directly behind the mic) then I can place the mic further away from the batter head. It also depends upon the shell depth of the drum.

You will see that my 52s have been modified so that they will fit into a KSM137 clip. This helps isolate the mic from the stand or the shell.

If you use a stock Beta 52 and mount it on a stand you must isolate the stand from the floor with foam or you will hear the floor - not the just the drum.

"The main requirement with live sound is a system that can set up and taken down quickly.”

Toms

"I use KSM137s on all the toms for live applications and KSM27 for recording.

I used to use an SM98 and then a Beta 98 for quite a few years – very popular microphones for tom toms. But, I discovered something mixing live recordings. While the 98 worked well with a PA system, I found that the recorded signal was not as good - especially on the larger drums. So I set out to find an alternative.

The main requirement with live sound is a system that can be set up and taken down quickly. Certainly the system I had with my ’98s was pretty slick. All the barrels (pre amps) were set into A53M shock mounts which were attached to an aluminum bar mounted somewhere on the kit. A loom of 98 cables all cut to specific lengths and then wrapped with tech flex made for an elegant and quick solution.

The KSM137 was the prime candidate since it could slide into the A53M shock mount and isolate the mic from the
drum and/or hardware. We created a loom made up of regular mic cable wrapped in tech flex and that terminated at the rear of the kit, close to a stage box.

I don't place these mics close to the drums – in fact, they're at least 2" away from each drum. If the kit is well balanced there is no leakage problem I ran a side-by-side Beta 98 and KSM137 test. The KSM137 emerged the winner. It had everything I needed for live applications and it worked well in recording applications.

"If space is tight, I substitute the KSM137 for the KSM27 when recording. The feedback (not the howling type) I have had from engineers has been very favorable."

**Hi Hat**

"I use a KSM137 or KSM141 and I prefer an "off-axis" position. My main complaint with live sound is that the hi-hat is often mixed too prominently.

The hi-hat is not as loud as the snare drum or the kick drum — that natural balance has to be considered. You may be dealing with a variety of different cymbals and that's often the choice of the musician. I generally feel that drummers pick cymbals that are not well balanced with the drums. They're usually much too heavy and loud."

"I generally feel that drummers pick cymbals that are not well balanced with the drums. They're usually much too heavy and loud."

"You should be able to hang one microphone over the kit (1960s style) and get a balanced kit sound (apart from the kick drum). That means that the drummer must play in a balanced way, his choice of cymbals is smart and his tuning of the instrument is sound. It just has to work and be musical and fit the music that is being played."

**Overheads**

"I use KSM27s, KSM32s, KSM44s, SM81s, KSM137s or KSM141s, depending on what's available and what works best. I prefer to use just a stereo pair since I like to use the overall kit sound and not roll off too much low frequency - but that will depend, of course, on the situation.

The actual positioning depends on the set-up of the kit but I prefer to keep them wide as opposed to a co-incident pair. I am not a fan of stereo mics – but in some scenarios, they work well."

Read more about Simon
check out his gear list
and how you build your own mic locker on a budget
on Simon's Artist Page.