PART 2
RECORDING

HOW TO BECOME A REMOTE SESSION DRUMMER

So you've done the budget and market research and your own studio is GO! So what next? Time to get down to the business of recording…

WORDS: **JAMES HESTER**

JAMES HESTER
James has a diverse CV from Island Universal/ Domino Records artists Malakai and Portishead's Geoff Barrow to punk nutters Cars On Fire and Pitchshifter's Mark Clayden. He is Head of Drums at BIMM Bristol and author of the critically acclaimed drum book *Mind Over Meter*.

Recording has many variables and is a very idiosyncratic topic. You don't have to hunt too hard on internet recording forums to find quite militant arguments about a piece of gear, a way of miking or a procedure or process. The problem with recording is its subjectivity – there are more ways than one to skin a cat. Early on in my days working at the BBC I was often reminded that there is a difference between something that works and something that is good. When you are new to a topic, it's tough not to be so excited when you put up a couple of mics, hit record and it works, that you regard this as 'good' – it may well be, of course, but more often then not it has only 'worked'.

Learning the difference between 'working' and 'good' takes experience, experimentation and realisation that the most critical piece of gear you could ever own, that needs to be nurtured and developed and built upon, is something we all possess: our ears. The great engineers that I have worked with, the drummers that get great recorded sounds such as Simon Phillips, Gavin Harrison or Billy Ward – and those who have contributed to this article – don't get great sounds because they own Neumann mics or Neve Preamps, they own them because they can get a great sound with them. To put it another way, owning an £8,000 drum kit does not make you a great drummer, we all know this. The way to develop your ears, as Ralph Salmins said in last month's feature, is to get some mics, get some preamps and just get on with it. Start getting sounds and learn, evolve and develop your hearing.

This month we will look into some of the important aspects of the recording chain and some production – without being too technical – and seek out some suggestions and practical advice to help you develop your sound.

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James often uses a condensor and dynamic mic on the snare drum to capture punch and detail

Spend the money where it counts - reliable computers and converters coupled with great sounding preamps and mics are the key

James' version of the 'Drumbrella' allows adjustments to the room's resonance

ROOM AND DRUMS

No amount of amazing microphones, preamps or other tricks or tips is going to help you out if the room and the drums don't sound great. Great sounding drums come from a combination of learning to tune good drums to the track, selecting the right cymbals that fit and developing a touch and a tone that will make them sound perfect. But what if the room doesn't sound very good? A large room can be tailored for a specific sound and then adapted to make it less ambient as required, however most drummers' rooms tend to be on the smaller side and with that comes a host of acoustic issues. Becoming a bit of an amateur acoustics boffin and being a bit of a dab hand with a handsaw and battery drill will save you having to email *DIY SOS* anytime soon. In my case, as in many others, the option for my room was to make it as even across the frequencies as possible and to make it relatively dead. Judicious use of Rockwool and packing blankets helped take the pinging and ringing frequencies out of commission and some inspiration from producer Eric Valentine's 'Drumbrella' led to me creating two adjustable ceiling clouds that I can raise or lower to adjust the room's resonance.

Pete Riley: "A drum sound begins with a good-sounding kit. The room will also influence the sound massively." Getting the drums sounding right in the room is the first and most critical step to a great recording sound. Emre Ramazanoglu also offers some practical advice to develop your recorded sound: "Some players massively overplay the cymbals, it makes all elements of drum recording difficult and chokes the cymbal sound. If you play hard, choose dark cymbals and pick drums and tunings that allow you to get a level from the kit that will match the cymbal level. Loud cymbals limit how you can use compression post-recording. Stick tip and weight have a big effect on sound, and make sure you can play both beater on and off the head of the bass drum comfortably."

> "SOME PLAYERS MASSIVELY OVERPLAY THE CYMBALS, IT MAKES ALL ELEMENTS OF DRUM RECORDING DIFFICULT"

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MICS AND PREAMPS

There has never been an easier time to get up and running, developing your ears and your sound. Companies such as the UK's Red5 Audio make complete drum kit mic sets (the RVK7) for about the same price as a single decent condenser would have set you back not too long ago. Set that next to some good budget preamps such as Focusrite Saffire series and you have a working signal chain that will see you in business. As your ears and budget improve, looking into the mic sets from companies such as Sontronics (DM series), Beyer Dynamic (TG Drum Set series) and Shure (PG and SM kit packs) will save you time and expense in terms of increasing your sound options.

SELECTING YOUR MIC ARSENAL

The types of microphones and preamp that you will select will be initially dependant on budget, but once you have honed your ears and increased your funds, it will then (as with your selection of cymbals or snare drums) come down to what kind of sound you want to achieve. I tend to carry out three main types of recording at my studio: a) A good replication of my drum kit in the room. What you might consider regular recording work; b) Making loops and grooves that have a niche recorded and produced sound to them such as you may find on a hip-hop, trip-hop or pop track; c) In a similar vein, replication of an existing drum break as closely as possible.

This has led me to build a decent selection of high-end mics through to unusual vintage or esoteric mics, speakers and other quirky things I can record through and a mixture of preamps.

"After the drums and the room, the next best thing from a gear perspective is the quality of the mic going into the preamp as it will have a big effect on your sound," Russ Miller explains. "You can track stuff without EQ or any sort of processing with great drums, great mic, great pre – straight into Pro-Tools and it can sound amazing. If you are going to invest money in something aside from drums and cymbals, it needs to be mics and preamps. I use all vintage API 312s."

Getting to know the microphones, what they sound like on each piece of kit and how they react in different places takes time and patience and is all part of the journey as a remote drum specialist.

Russ Miller keeps focus with this topic: "I'm constantly learning about mic placement and how it affects the way things end up on tape. To be honest, the best sounding recordings come from the best performances."

The preamps need to be able to handle the high volume of drums and, of course, you'll need enough of them to handle the amount of mics that you will have. My own selection includes budget/mid-range gear (Focusrite OctoPre), high-end gear (Focusrite 428s out of Ralph Salmins' studio and Universal Audio 4710d that have a blendable transformer or valve stage) and also some modified or more esoteric items such as my Shure M67 (the preamps they used to record Woodstock) and a re-capped, re-tubed and op-amped (it's technical!) TLA Ivory 5001. Combining the right drum or room placement with the right mic and these preamps allow me to achieve the sounds that I'm after.

> "GETTING TO KNOW THE MICROPHONES AND HOW THEY REACT IN DIFFERENT PLACES TAKES TIME AND PATIENCE"

There are many great, affordable drum mic sets available from brands like Shure and Red5

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Selecting the right mics will allow you to achieve the sounds you're after

RALPH SALMINS' MIC SET-UP

BASS DRUM
AKG D112 and/or Neumann FET 47 (mic placed on the port of the resonant head and some muffling in the bass drum) and a Yamaha Subkick

SNARE DRUM
SM57 – "I don't bother with an under-snare mic, some people I know do, but I don't."

HI-HAT
Neumann KM84 (any condenser will do)

RACK TOMS
Sennheiser 421

FLOOR TOM
Another AKG D112 – "I have other Sennheiser 421s but I happen to really like the D112 on the floor tom."

OVERHEADS
Calrec (Hebdon Sound) CM1050 – "Small condenser pencil mics as an XY configuration."

AMBIENT MICS
Neumann TLM 103s – "I vary the distance of these from the kit depending on whether I want a lot of ambient room or just a little. Sometimes I use these Neumanns to experiment with the Glyn Johns method, as I don't have U67s."

AND...
"An SM57 in the corner of the room that is a good compressable, squashable mic. It's a bit lo-fi but I like it for certain things. I'm always tweaking and experimenting and trying out new ideas to see what I like the sound of."

DON'T BE PHASED

One of the critical issues when using multiple mics is 'phase'. Offset phase occurs when two mics hear the same sound at two different times because they are at different distances from the source. At best, this can result in a loss of low-end and a lack of detail, at worst this can cancel out the sound completely. Nothing screams 'amateur' than a bunch of out-of-phase stems. Emre Ramazanoglu has various ways of checking phase: "If you're not familiar with how 'out of phase' sounds, listen for a lack of bottom-end or a hollowness/smearyness. Flip 'phase' on your console/mic pre and you'll hear the sound snap into focus with more definition and range. Almost always a sound isn't perfectly out-of-phase, so I'll often use a Littlelabs IBP hardware box to rotate the phase between two kick mics, for example, by ear so they are nicely aligned and powerful."

Both Pete Riley and Russ Miller set their rooms up with their mics in phase and keep it the same, more or less all of the time.

"My kit and mics are always set in place so most phasing issues have been dealt with," explains Pete. "However, summing to mono and introducing one channel at a time usually works to find a culprit. And in this digital age, flipping the phase on a waveform is easily done though there can be degrees of phasing issues that aren't so easily solved."

Russ takes a similar route: "You can get rid of phase by using mic placement. You can use the 'one to three' rule on overheads – ie: if it's up 2ft and then 6ft away from each other. It's a matter of checking the mics that are in close proximity to each other. Pick something like a hi-hat mic – then solo each other mic and flip the phase to see if it's in phase against it. If it's losing its bottom end, it's phasing. There are some plugins you can use but you should be able to do it just on the pre-amp. I had some of the best engineers help me set my room up and so the mics stay pretty much where they are."

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Pete Riley's studio set-up

EQ & COMPRESSION

Compressing the drums will reduce the options the client have when it comes to mixing. Sometimes, however, it may just be the right thing for the right track. Russ Miller is selective: "If it's a slamming rock tune, I might track the room mics with compression and hit them harder so they have a compressed room sound and they can adjust how much of that room they want. So the only thing I really do is use the Empirical Labs Distressors on the rooms."

With compression affecting so much of the dynamics, it's important to keep focus on what results it's having on your own drumming. Russ: "For an approval mix I'll send a note saying this is the mix that I'd recommend. The mix of room mics verses close mics, etc. They're going to mix it after all so it's up to them. Sometimes by the time I hear something that I've recorded on the radio it's a mess... they cut and paste, put fills where I didn't play them, they compress any dynamics out of what I've played – I sound like a gorilla! Unfortunately that's the way it goes. My job is to play the most effective thing I can musically and give them a high quality capture of that performance and then... well, it's up to them!"

EQ'ing the drums, however, is often part of providing the drum sound that you had intended the client to have. If you have good quality outboard EQ's then, like Ralph and Russ, it's common to record with the EQ in place. If you're reliant on good plug-ins then tracking first and EQing after is the best way. The best policy is to ensure you're cutting any frequencies you don't want rather than overly boosting the ones you do – don't be too surgical though, as most EQing is done at the mixing stage. "After mics and preamps then EQ is the next thing to invest in," says Russ. "If you're going to track with EQ then it should be a spot-on, high-end EQ – or just don't have any EQ at all and let them do it in the mix. Again, I have original API 550As and 560As on the room mics."

EMULATION AND INSPIRATION

As drummers, we've all tried to emulate someone else's playing – this approach will help you with recording too. Take time to try and recreate some recordings – get as close as you can and learn from it. From the drums upwards, the closer they sound to the finished product in the room, the easier the process will be. Read suggestions from other engineers, producers and drummers and try them out – compare the results. Inspiration may come from people you've worked with or albums that you've listened to. With a CV like Russ Miller's, he has plenty of ideas and tricks to try out: "I worked with Jack Joseph Puig on Daniel Bedingfield's records. He has very interesting sonics – like pieces of glass with PZM [*pressure zone microphone*] mics taped to them or a long-throw bass speaker from an outdoor PA speaker and he'd have a mic up inside the bass scoop. I'd play kick, snare, hi-hats on a track and he'd be using 20 mics! A super-creative dude."

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WHAT AND WHERE?

Knowing what a producer may be after is tricky, so how do you get them what they want sonically? "That's one of the hard things about the producer or engineer not being here," says Russ. "There's two ways around this: a) I ask a lot of questions: 'What were your thoughts for the end result? What were you looking for, drum sound-wise?' This helps me choose a selection of gear; b) Track so much stuff on the drums they can choose what they want. I'll put in 15 or 16 channels of mics so they have room mics, they have close tom mics, internal and sub kick on the kick drum, snare side, batter side, mono mic – so any drum sound they want, they can dial it in."

Pete Riley takes the same approach, despite having a personal preference: "I use a generic close-miked set with room mics as a lot of my work is mixed by other people and they demand that kind of control over all elements of the kit. Personally I like the fat in-phase sound of a kit recorded with as few mics as possible." Pete explains one of his favourite 'few mic' set-ups: "Four mics: one on the kick, one on the snare, one pointing at the snare between the hat and rack tom and one over the shoulder pointing at the ride and floor tom. A Billy Ward mic set-up that works beautifully, especially on a four-piece kit."

Russ takes a holistic view to mic placement: "Really for me it's about trying to get some air between the mic and the drum, not having the mic so close to the head. It's like sticking your ear half an inch from a piece of plastic. Let the drum 'be' a drum and get the mic up five or six inches, let the shell say something and record the instrument not just the head."

Ralph Salmins has a go-to set-up: "I have a standard set-up which I leave set up all the time and I tweak it. So, most of the time I know what works and what I like, which is a completely standard drum kit set-up that most other drummers use and in most of the studios I work in I find that the engineers use the same set up too." [*See Ralph's mic set-up in detail on page 69.*]

> "LET THE DRUM 'BE' A DRUM, GET THE MIC UP FIVE OR SIX INCHES AND LET THE SHELL SAY SOMETHING"

Ultimately the aim is to build up your mic locker and your skills in miking to be able to provide options and sounds to the client – from a full hi-fi reproduction of your drum kit, close mic'd, via fat, punchy Glyn Johns-style to more specialist miking ideas such as a trick that I use myself, which I'll let Russ explain: "A Shure Beta 57 in a shock mount so it will fit in a snare drum, and it's facing the snare wires so you don't have any phasing (as the two mics aren't looking at each other). You get a great snare element sound without any bass drum leakage." Research and try out different overhead options such as coincident pair, Glyn Johns, Recorderman, Blumlein, XY, Middle and Side (M/S) – they will all help you develop a list of options for achieving the sound that you and the client want.

CHECK OUT WWW.RHYTHMMAGAZINE.CO.UK FOR MIC COMPARISONS, MORE FEATURES, PRACTICAL TIPS, ADVICE AND VIDEO SUPPORTING THIS FEATURE

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When choosing a computer, go for speed and reliability

CONVERTERS AND COMPUTERS

The conversion from an analogue signal to a digital one is a critical stage but you don't have to spend thousands of pounds. Again, simple research can provide you with a viable shopping list. Of course for a drummer, the most important thing to consider is, will it have enough inputs for all of your mics? My choice came from seeing the same mid-range converters in many studios I was working in and opted for Motu 828 MkIIs, which are a good reliable workhorse. There are many other good mid-priced options on the market.

through a take. Likewise, reliability is essential to enable you to track safe in the knowledge that it's not going to crash halfway through the session and need time and costly fixing, causing issues with you providing a great service. The use of external Firewire hard-drives is also a suggestion that I've taken from many larger studios, allowing me not just to mix anywhere but also as a safety measure in terms of back up. The software you choose will be dependant on what you want to use. Most people stick with one platform but I find it easier sometimes to work in the same format as my client

"IF YOU CAN KEEP A LUXURIOUS SIGNAL CHAIN FROM TOP TO BOTTOM, GO FOR IT!"

Russ: "So you have the best drums, best mics, the best pre-amps, then you get the best EQ, then look at the converters, but you need to do it in that order – If you can keep the signal chain at that high end all the way into the computer then great! But do it in that order. If you can keep a luxurious signal chain from top to bottom, go for it!"

When choosing a computer, go for speed and reliability. Good processing speed is critical to being able to track without it stopping halfway

so I often use the 'big two': Logic and Pro-Tools (which is my preference) but I also have and use Audacity (a good free program), Reaper (an excellent cheap alternative to the big two which a lot of pro's now swear by) and Ableton Live – but there are others such Garageband, Cubase etc. More then anything, the most important thing is to really know what you are doing in each of these programs – they are just a tool and any skilled workman needs to know how to use them.

Some of Ralph Salmins' high-end esoteric mic preamps

PRODUCTION

More often than not, we will be providing individual stems to the client for them to mix, but to get approval for a drum part some mixing skills will be important. Emre has a set way of doing this, "I always send a lightly processed version of the drums, set into their drum-less mix and then the drums pretty natural as a separate print. You have to use your head as to what will work best, but that's a good place to start. Make sure you compensate for any extraneous plug-in latency post-printing (or bouncing), or else you'll get complaints your playing is late! Become their best friend by recording a few single hits at the end of the session and including those in case they want to do some more intricate editing."

Pete Riley explains his take on this: "I do a rough mix of the drums. Nothing too involved, mostly just balancing the different elements of kit. It never ceases to amaze me how other engineers/producers do this and soon create the most unnatural sounding version of my kit. But that's the nature of recording; once you finish a session, it's out of your hands."

Russ offers a great metaphor of advice when it comes to mixing: "You don't have to over-paint the thing. It can be a beautiful painting without having layers and layers of paint on it." **R**

PART 3
THE SKILLS YOU'LL NEED TO WORK WITH CLIENTS AND FULFILL THEIR BRIEFS

SOME MORE SUGGESTIONS

Our panel of experts present some suggestions for further study when it comes to great drum sounds, producers, books and other resources

RUSS MILLER

"One of the things I loved about the Led Zeppelin sound was you can hear the Neumann U87 and the API 312 pre's – if you know that sound – and you can hear those guys simply just put those mics up and there was the sound. I think Peter Gabriel's records – especially *Up* – are amazing. It's like sonic art. Those guys are so on top of what's going on sonically. It just blows me away."

EMRE RAMAZANOGLU

"Tchad Blake, Rich Costey, Glyn Johns, almost all the Tom Waits albums (almost regardless of producer!), Rudy Van Gelder, Jon Brion and Dylan Dresdow. Why I love them is the same for all of them, they have a sonic palette/taste that I really love and their sonic decisions make drum sounds that work so, so well in the mix!"

PETE RILEY

"My favourite drum sounds are often created by drummers such as Simon Phillips, Dave Weckl and Gavin Harrison, though I also love more vintage/analogue sounding recordings such as Jellyfish or Crash Kings."

RALPH SALMINS

"Check out producers such as Bruce Swedien, George Massenburg, Frank Filipetti, Al Schmitt and the books *Behind The Glass* by Howard Massey and *Make Mine Music* by Bruce Swedien."

JAMES HESTER

"I'm constantly listening, reading and trying out stuff – *Pensados Place* is a great resource for online inspiration and ideas. I love the sound that Eric Valentine gets with his 'underheads', Brendan Lynch always achieved an amazing sound with Steve White's drums on Paul Weller records, Butch Vig gets amazing sounds... the list goes on!"

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