



ROCK 'N' ROLL DOCTOR

DAVID GREEVES PAYS A VISIT TO DR Z AND MEETS
THE MAN WITH THE CURE FOR THE BAD TONE BLUES



When we reviewed a trio of Dr Z amps back in issue 78 – the Carmen Ghia, Maz 18 Jr NR and Route 66 – we were seriously impressed. These hand-wired valve heads from the US were beautifully made and sounded terrific, yet cost a hell of a lot less than many of the 'boutique' American amps we come across. How on earth, we wondered, had we never come across such a find before?

While Dr Z is a relatively new name on this side of the pond, over in the US it's a different story. The Cleveland, Ohio amp company is celebrating its 20th anniversary this year and boasts an impressive roster of pro players, including Texan blues ace Buddy Whittington, Nashville Telecaster master Brad Paisley and the one and only Joe Walsh. We travelled to Cleveland to find out more about Dr Z from the main man himself – Mike Zaitz.

THE DOCTOR IS IN

Zaitz, known universally as 'Dr Z' (and that's an American 'zee'!) or simply 'the Doc', is a larger than life character with an infectious passion for great guitar tone. Yet, like Marshall Amps founder Jim Marshall, he's actually a drummer rather than a guitar player. So how did he get into the guitar amp game?

"My dad was a TV repairman, so the basement of my house when I was growing up looked like my shop does now, with chassis and tubes everywhere. My dad was real gracious and he taught me a lot of stuff – fortunately I learned vacuum tubes from him, because when I went to college, they weren't even teaching that stuff any more.

"So I was a drummer and at that time – the early '60s – there was a garage band in almost every other house," he continues. "We'd have rehearsals at my house and guitar players would leave their stuff, and that's when I started to learn how to modify amplifiers – little did they know the stuff that I did to their amps! That's what got me interested, and it stayed with me."

An engineering degree and career in medical electronics would follow before Dr Z returned to the world of amplifiers. "I started doing repairs, and from that I just thought, 'Man, I could probably build an amp just as good as some of these!' So I started

■ Dr Z amps are made in this small workshop in Cleveland, Ohio



■ Brad Paisley has worked with Dr Z on two amp designs

building amps. It meant I was able to combine my first love of music with my second love of electronics."

THE HOLY TRINITY

The Doc's first amp was influenced by Marshall. "It was kind of like a JCM800, but I did my own spin on it and came up with my own sound," he explains. "Everyone talks about the Vox, the Fender and the Marshall sounds – the 'holy trinity' – but I tried to combine the three sounds that I loved, but in my own way, kind of like how a chef does. He takes a recipe and adds his own spices to it to make it original."

However, this approach brought its own difficulties: "When I first started selling amps, people would want to know, does it sound like a Marshall? Does it sound like a Vox? Which model do you make that sounds like this or that? And it's difficult to try to convince somebody that it kinda sounds like all of them and none of them. But in the long run I wasn't just a guy copying a tweed amp, like so many of the original 'boutique' builders were."

■ Essential test equipment: oscilloscope, multi-meters, a mallet and a banana



As Dr Z sought to establish and expand his business, he received a significant boost when fellow Cleveland native Joe Walsh approached him about building an amp. "When I started working with Joe Walsh early on, one of the things that I had to do was build an amp that Joe could put 20 different guitars through. On the *Hell Freezes Over* tour, he changed guitars 20 times during the show, and he couldn't go back and adjust his amp every time! That amp had to be suited for the Rickenbackers and the Telecasters and the Stratocasters and everything else that he used.

"I've always kept that in mind – I want my amps to have a friendly front end," he continues. "I've done a lot of dual-triode inputs, and that allows the impedance to be a bit friendlier to pickups and the signal comes in a lot cleaner. That's also



■ Sales manager Brent Ferguson shows off the brand new EZG-50

something I learnt in medical electronics with CT scanners – you have to be able to acquire the data before you can process it. If you get garbage in, you're gonna get garbage out! You've got to be able, with as much sensitivity as possible, to grab as much data as you can and then you can massage it so it'll sound great in the end. But you've got to get it in the first place – if you don't, it's lost."

TWO KNOBS GOOD

Another element of the Dr Z design philosophy is to keep things simple (on the outside, at least) and avoid any unnecessary complication. "I've tried to use the features that people want, but also keep 'em simple," says Dr Z. "I've got a lot of three-knob and two-knob amps, and I love that. I don't think you need a lot of knobs to get a nice sound. You need to turn around, close your eyes and just play, man!"

A perfect example of this set-and-forget philosophy is the Carmen Ghia's tone control, a brilliantly simple and intuitive single-knob solution for shaping the sound of the amp. But how did it come about? "I noticed a few guitar players who would use a wah-wah pedal as a tone control – they would set it at a specific spot and then play. So I wondered if I could make a tone control that could do that mid-range sweep, but without getting too involved with all the components it takes to do that in a wah – all the inductors and such. Could I do it with a pot and a cap and a resistor? So I worked on it and worked on it and that's what I came up with."

WILL OF THE PEOPLE

While Dr Z clearly has his own ideas about what makes a great amp, he's keen to stress that, like any good businessman, he's guided by what

■ The amps are all wired by hand the old-fashioned way



"YOU NEED TO CLOSE YOUR EYES AND JUST PLAY, MAN!"



■ Rolls of grille cloth waiting for cab or combo

his customers want. That's why, when we meet at legendary Cleveland music venue Wilbert's, he's in the middle of Z Fest, an annual event that draws hardcore Z fans from all over North America to jam, talk shop and try out the very latest prototypes.

"What I've found is that most guys who own a Z amp own more than one, and they're going to continue to buy more so long as I continue to bring out new stuff that interests them. And that's a good thing – these are loyal guys. I've been at it for 20 years and I've got 15 or 16 models currently, and I try to come out with a new one a year. Z Fest lets me try out new prototypes and see what people think. Which one will be next year's model? We'll see!"

This year's new addition to the range is the EZG-50, a stunning 50-watt, 6L6-powered head. However, one trend that Dr Z has noticed is a desire for lower-wattage amps. "I do find that, as much as I would like to make Ferraris – high-powered amps with a lot of thrust – there's really not that much demand for them. There's certainly a lot to be said for something that really knocks your knickers down, but in reality, the lower-powered stuff is what most people want. The clubs have fewer people there and there are better PA systems available, so big, powerful amps aren't as needed as they were. Also, a lot of guys that buy the amps don't play out, or do so very rarely. They want an amp they can play at home."

DR Z'S BEST BUDDY

BLUESBREAKERS GUITARIST BUDDY WHITTINGTON IS A LONG-TIME DR Z AMPS FAN

■ **Whether performing solo or as lead guitarist with John Mayall's Bluesbreakers, Buddy Whittington's tone is never less than sublime.**

The blues guitarist has been using Dr Z amps for well over a decade, ever since a chance encounter. "He came and played here at Wilbert's back in '94 or '95," says Dr Z, "and the sound guy called me up and said, 'Man, you'd better come in. This



■ Buddy Whittington shows us how it's done

IMAGE: Phil Weiskittel

guy's been playing your amp for two hours straight. You're gonna sell one if you come here! So I got to meet Buddy, and there's just not a nicer guy I've met in the industry. There's no 'rock star' in him at all and, boy, he can play as good as anybody. Also, he just clicked with my amps. He just plugged into a Maz 38 and I've never

heard anybody make that amp sound like that – it was just magic. He turned both volume and master up, and he would use his guitar's volume and just play with such touch and feel and dynamics. He made that amp sound like he was using pedals – boosts and distortions as well as clean sounds – and it was all just coming from his hands."

MASTER CLASS

Thanks to this desire for less volume, one frequent request is for a master volume control to be added to existing non-master volume designs. This is not always the answer, according to Dr Z: "My experiments have told me that the more sophisticated the front end of the amp – the more preamp tubes you have and the more stages of processing you go through – the better you can manipulate the signal going to the output tubes with a master volume control.

"It's different when you have a very simple front end, like the early vintage amps," he explains. "If you look at the old Supros, and even tweed [Fender] amps, they had one or two preamp tubes and a very simple tone stack. What they relied on was hitting the output tubes hard and creating output distortion. In an amp like that, a master volume doesn't work because you don't have enough magic going on in the front of the amp."

The new EZG-50 is equipped with a master volume. It also uses a valve

■ These amps can involve some pretty complex wiring



■ Dr Z with eccentric guitar genius Joe Walsh

rectifier (the bit of the amp that supplies direct current to the power amp valves), a feature found in many Dr Z amps. So does the Doc prefer this to a solid-state rectifier?

"I do have some amps that use a solid-state rectifier, like the KT45 and the Delta 88," he says. "If I'm designing an amp to be powerful and I want it to have that low end that you can only get with a really stiff power supply, then I'll use a solid-state rectifier, though often as a plug-in so a guy can put a tube rectifier in later if he wants.

"But when you want a singing sustain in a low-powered amp, a tube rectifier's perfect," he continues. "I used a tube rectifier in the EZG-50 to bring the wattage down – if I had used a solid-state rectifier on that amp it would have been more than 50 watts peak. The

nice thing about a tube rectifier is that, as you push the amp harder, it starts to naturally 'sag'. It lowers the plate voltage in a nice, linear way and you get that nice natural compression, where the note swells back up after the initial attack."

TUBULAR FUTURE

When Dr Z expresses some concerns over the quality of rectifier valves currently available, we ask whether we ought to be worried about the future of valve amps in general, should valves become too difficult or expensive to source.

"I always worry about that day, though I can't say that I sit up nights thinking about it," he says. "But there are always new tubes coming out. There's certainly not the quality of some of the old Brimars or Mullards or RCAs, but they're available and they're inexpensive – that's the trade-off. If I gotta go through three to find one good one, it's still almost cheaper than trying to source NOS tubes.

"I always design my amps to work well with the tubes that are freely available now. As long as tubes are available, I'm gonna keep making tube amps. When they're not, well, I'll start making solid-state amps. I've got nothing against that – if I can make a good one, I'll do it!" **GB**