

# Foo Fighters

Dave Grohl, Butch Vig  
& Alan Moulder:  
Recording *Wasting Light*

The Foo Fighters could have gone to any studio on the planet to record their eagerly awaited album *Wasting Light*. They chose their frontman's garage...



TOM DOYLE

Planning the seventh Foo Fighters album, Dave Grohl realised he was bored of the band's typical recording process. Even though the group own 606 Studios, a top-flight recording facility in Northridge, Los Angeles, Grohl is still a punk rocker at heart, and found himself hankering for a grittier, wholly analogue approach to recording. One night in his hotel room in Melbourne, while on tour with Them Crooked Vultures (his extra-curricular trio with Josh Homme and John Paul Jones), he hatched a plan to return to recording basics for what was to become *Wasting Light*.

Twenty years on from the landmark recording of *Nevermind*, *Wasting Light* sees Grohl reunited with that album's producer, Butch Vig and — for the first time since Kurt Cobain's suicide in 1994

*Wasting Light* was tracked by engineer James R Brown (left) and producer Butch Vig (right).

— his former Nirvana bandmate, bassist Krist Novoselic. Two strict conditions were imposed upon the making of *Wasting Light*: Grohl insisted that it had to be recorded entirely to tape and, if that wasn't enough of a headache-provoking scenario for Vig, entirely in the Fooos' frontman's two-car garage at his home in Encino.

"I thought," Grohl says, "rather than just record the album in the most expensive studio with the most state-of-the-art equipment, what if Butch and I were to get back together after 20 years and dust off the tape machines and put them in my garage? We've recorded an album somewhere where no-one has ever recorded before. We've not gone to the studio where Zeppelin made *In Through The Out Door*, we've gone into my garage. The only person that's recorded in my garage before is me for shitty demos that I've done for the last two records."

For his part, Butch Vig took some

convincing. "Well, the first day we sat down and talked about it," the producer laughs, "he dropped one bombshell: 'I wanna do it in my garage.' I thought, Well, he's probably got a pretty nice garage. So we went down to his house and opened it up — and it's just a shitty little rectangular room, about 18 feet by 20 feet or something. Hard, dry wall. It just sounded like a trashy garage. But we put up a drum kit and four mics and Dave started playing and it sounded good. Really intense, because the room is small and the sound pressure was just super-crushing loud. Then he dropped the second bombshell: 'I want to do it on tape.' I was like, 'OK...' — in my head, thinking what we'll do is we'll probably record on tape and then dump it into Pro Tools."

"Butch said," Grohl remembers, "if we run into any real trouble we can always dump it into Pro Tools.' I said, 'No no no no, dude. No fucking computers. Not one computer. None.' Personally, I've always preferred using

tape, because I like the sound of human performance. I don't like the mechanical, perfectionist attitude to making music. He said, 'Y'know, I'm gonna have to get out my razor blade for editing.' I said, 'I've seen you do it before, I know you can do it.'"

"So I thought about that a little bit," Vig continues, "and said, 'Well why can't we do that? That's how I learnt how to make records.' I just tried to make my head go back in time a little bit. I said to him, 'That means you guys have to be razor-sharp tight. You've gotta be so well rehearsed, 'cause I can't fix anything. I can't paste drum fills and choruses around. This is gonna be a record about performance, about how you guys play.'"

### Wasting Light, Not Space

In preparing for the tracking of *Wasting Light*, engineer James R. Brown travelled to Grohl's house in Encino to make some exploratory recordings with a Studer A827

»



The album's 11 songs were tracked sequentially, and Taylor Hawkins' drum setup would change accordingly — but always within the confines of Dave Grohl's garage!

## Dacey Splicing

Thanks to Dave Grohl's insistence on working entirely in the analogue domain, Butch Vig had to very quickly reacquaint himself with the methods of tape recording, trying to reawaken skills he hadn't used in nearly 20 years. "I was a little nervous the first day," the producer admits. "We tracked the first song, and on the second or third take, we got a really good one. But I didn't like one of the fills on the end, so on another tape I had Taylor play something else and then I went in and I got the razor blade and I did an old-school tape edit on two-inch. Which was fine, even though my hands were a little shaky."

As it turned out, the difficulty with the physical edits was not with Vig's shaky hands but with the quality of the tape itself. "James Brown and I put the tape back on and a huge chunk of the backing fell off the tape. We both freaked out. We were like, 'Oh my God, is this tape so poorly made now that it doesn't stand up to a tape edit?' It turns out that the splicing

tape itself was too industrial. I remembered that I used to use this kind of real thin, flimsy, light-blue editing tape — which was helpful because if you didn't like your edit, you could very carefully take it apart. But they don't make it any more."

In a slight panic, Vig called the chief engineer at his Smart Studios in Wisconsin, who managed to unearth a roll of the old editing tape in the basement. It was quickly Fed-Exed to Grohl's garage. "The difference these days," Brown argues, "is the companies who're producing recording tape are putting 40 percent more oxide on it, so it's a lot more brittle. We had a week of worrying whether the tape was going to last through the process."

Still, Grohl remained adamant that the team couldn't use Pro Tools even to back up the masters. Vig remembers, "Dave looked at me and said, 'If you get a computer in here I'm gonna throw it out the window.' So I said, 'OK, you've made your point, but I just want

you to know that I don't know how good this tape is. We could be recording and we could be a month in and overdubbing on a song and all of a sudden, the tape breaks or comes apart or the backing comes off.' And Dave said, 'Then I guess we have to re-record the song.' That's pretty hardcore. But luckily none of the tapes broke. Once we started using that lighter splicing tape, it was all fine."

Other aspects of analogue recording, such as controlling unwanted noise, found Vig employing long-forgotten tricks. "All these things started coming back to me, literally on the first song," he says. "There'd be a buzz on the guitar in these spots they weren't playing in. I never really like to use noise gates, so I'd do it manually. I'd have a fader set with a bit of tape on the top where the level was, so I could throw the fader up whenever they were playing, and as soon as they stopped I would pull it down really quick so it was like a manual noise gate. We did it on everything we recorded."

» 24-track recorder and a rack of Neve preamps pulled from 606 Studios' old BCM10. "I threw up eight microphones, just to get a feel for what we were gonna be dealing with," says Brown. "We did three-hour, 16-track demos of a handful of tunes, including 'Dear Rosemary'. I told Butch we weren't going to have any problem with top end!"

Satisfied with the test recordings and readying themselves to set up a control

room in the study upstairs from Grohl's garage (running cables up the outside wall), the team brought in another Studer A827 to enable them to run 48 tracks, and ordered an API 1608 desk, with an extension board bringing it up to 32 channels. Monitoring was done through Vig's Barefoot MM27s. "The primary concern was space," Brown says. "Along with that, we knew that there was a very good chance that it was gonna end up on 48-track analogue. API are very

honest, musical-sounding boards."

"I love APIs," says Vig. "I think they have a really punchy sound. The EQ is not subtle. When you wanna boost some mid-range or high-end or bottom, you hear it right away. I can hear the sound of that board in the sound of the record."

In keeping with the self-imposed remit, all the outboard used during tracking was analogue, including Manley Massive Passive and GML 8200 EQs, plus compression from



Dave Grohl's self-imposed regimen banned all digital gear from the project. As there was no direct visual link between control room and garage, a 42-inch TV was set up for visual communication.

a Dramastic Audio Obsidian, two Universal Audio LA3As and two Chandler Little Devils. "All analogue," Vig confirms. "For preamps, mostly we used the APIs, but there were also the rack Neves they stole from 606."

Butch says working conditions in the makeshift control room were fine, since it has a high ceiling which helped it not to feel unreasonably crowded once filled with both equipment and people. "I mean, trust me, it was crowded," he laughs. "Dave did some of the vocals sitting right next to me. But a lot of the overdubs we did in this little room right next to the study — this maybe eight-foot by six-foot area we made into an iso booth. We put a sliding glass door on it. Dave could go in there and sing, and also we had some amps in there."

### Working Week

A plan was quickly formulated to record each track, top to tail, in a week, with drum tracks recorded on a Monday morning and a rough mix done by Friday evening. "We stuck to that," says Vig, "and it was good because each song kinda had its own life. Once we were focused on a song for a week, that's pretty much all we did. In a way, you had a sense of completion. And then we would change the drum sound out, change everything out."

In terms of sonic treatment of the garage live room, there was virtually none, other than two baffles positioned behind drummer Taylor Hawkins' kit and another two placed at the door to cut down leaking noise. "The two right behind Taylor were maybe four feet by four feet, just to get rid



The full *Wasting Light* production team, from left: Foos frontman Dave Grohl, former Nirvana bassist Krist Nološević, engineer James R Brown, mix engineer Alan Moulder and producer Butch Vig.

of the reflections off the back wall that were coming into the drum kit," says Vig. "We put a carpet under the drums also. Initially, it was so loud and bright with no carpet in it, and the cymbal bleed was killing everything. It still was a very bright sound, but a little bit more reined-in."

"To tame that space, we would've had to hang things everywhere," Brown points out. "And y'know, the brief going into it was that Dave didn't want to do that. He wanted the record to have a trashy, aggressive quality to it."

Still, when it came to recording the first drum track, it quickly became apparent that the cymbal bleed was still presenting a major problem. "The cymbals are always a problem with the Foos," Brown says, "because they wash a lot and they hit

them so hard. You have to work quite hard trying to make sure it doesn't suck up all the ambience. We swapped his main crash for a shorter-decay Zildjian cymbal with holes drilled in it, and we turned the main ambience mics around to face the bottom corners of the garage."

As the team settled into a tracking routine, a method developed involving Grohl standing in front of Hawkins' drums in the garage, directing him while playing guitar through an amp located in the upstairs isolation booth. "A lot of times with Taylor," Vig says, "instead of tape editing, we would just punch in. You can hear the punch-ins and punch-outs if you put headphones on. Especially if you soloed the drums, you would hear the cymbals change or the snare tuning change a little bit. And »

» sometimes we would fuck up — like James would punch in on a chorus and he'd clip a snare or something and we'd play it back for Taylor and go, 'Sorry, dude, you're gonna have to do it again.'

"Dave would just stand two feet away from him, just so they could communicate, especially if we were trying to figure out drum fills or some patterns that were not quite working. That way, there was an immediate rapport between the two of them." Due to the lack of visual contact between makeshift live and control rooms, Grohl set up a spare 42-inch TV hooked up to two cameras — one situated in the garage, and another pointed at one or other of the tape machines. "We'd flip between cameras," says Vig. "We could see Taylor drumming, but most of the time we had it on the tape machine. About two weeks in, somebody suggested, 'Hey, you know what, we should just put this feed up on the web site.' So if you went to the Foo Fighters site, you would see the shot of a tape machine running, then rewinding, then running." Once everyone was satisfied with the drum take, a basic four-track mix consisting of kick, snare and a stereo track of toms and overheads would be bounced onto the slave reel, which became the focus for tracking.

### Gnarly Tones

Turning to bass parts, Nate Mendel would record his Lakland Bob Glaub Signature bass through an Ashdown ABM 900 EVO II head with an Ashdown 8x10 cabinet. "He has a bunch of basses, but he really likes those Lakland basses," says Vig. "I think we might have used a Fender on one song, I think we tried a Gibson Ripper on one song. But he's very fluid, he has a really good feel and that was almost more important sometimes than the sound — how the performance felt on the song."

With Grohl, Chris Shiflett and returning original member Pat Smear, the Foo



If anyone knows about grunge, it's Dave Grohl, Butch Vig and Krist Novoselic.



Fighters now have three guitarists who all, says Vig, offer their distinctive sounds and styles. "They all kinda have different roles. Dave is kind of the glue, he plays most of the rhythm stuff and locks in really well with Taylor. Chris is an amazing musician and normally he would play the riffy parts, the arpeggio parts, the lead breaks, things like that. Pat was the 'x' factor and sort of came up with all these gnarly guitar tones. The funny thing is, for Pat's main rig we ended up using a Roland Jazz Chorus [JC120] with these crazy pedals that would make the fillings in your teeth fall out. He also did a lot of baritone guitar stuff, so he would find this place lower than Chris and Dave to come up with his parts. I think he also used a cheap Peavey on a couple of songs. Chris and Dave have all these great vintage amps and then Pat has like the crudest sound. It was perfect.

"Chris really likes Vox AC30s, though he used a Marshall now and then. We tried this brand-new amp by this small boutique company Audio Kitchen and it sounded great — Chris used it on a couple of songs and Dave used it on three or four songs. It's just got a really cool tone. You don't necessarily have to turn it up loud to get a saturated sound on it. All the controls are very interactive between the tone and the boost and the bottom end. The guy who makes it sent us two — one was called the Big Chopper and the other was called the

Brought in to mix the project, Alan Moulder (front) swiftly realised that he would be unable to recapture the same energy in a conventional studio, and decamped to Grohl's house to work on the same API desk as was used to record the album.

Little Chopper, but both great amps."

In terms of amp miking, the workhorses were the trusty Shure SM7 and SM57, along with the Royer R121 and two RCA BK5 ribbon mics. "I had the RCA mics sent out from Smart Studios. They're my favourite ribbon mic because they have more high end than normal ribbon mics, but they can also take a really intense sound pressure."

When it came to Dave Grohl's vocals, the chain was a Bock 251 mic through a Neve 1073 preamp and Empirical Labs Distressor compressor. The only exception was for the grainy, saturated vocal on 'White Limo', which was captured by Grohl singing through an SM57 plugged directly into a Rat distortion pedal and then into the Roland JC120. 'I Should Have Known', meanwhile, features a blend between both sounds.

"We were doing everything on the slave reel," Vig points out, "so by the time we got all the guitars on there, there were usually only four tracks left for vocals and two left for vocal bounces. So Dave would just do these performances and we would work until we felt that we had four good takes that could almost be considered a lead. With Dave, once he got focused, the takes

were very consistent. When we'd finish, I'd put all four takes up and listen to them all at the same time, and you could hear how tight it was. If he was off, phrasing-wise, especially on a chorus, then we'd go back in and do it. But really, though, it was so tight.

"Then I would usually comp it in chunks — use take two for the first verse, take three for the chorus — and then we would record a double. The cool thing about live doubling is there's no Auto-Tune and it's not perfect and because it's looser, it sounds better. It's sort of wider and thicker-sounding. Every now and then when we were bouncing, we'd have to punch in a word. Or sometimes I'd have to do, like, ninja fades, slight crossfades. It was a lot of work, but again I think when you hear it, it has character. It feels like a performance. It doesn't feel like something that was put together in a studio."

## Poisoned Chalice

In 13 weeks, allowing for days off, the team tracked 11 songs. With tracking done, Vig and the Foo Fighters brought in Alan Moulder (Smashing Pumpkins, the Killers, Them Crooked Vultures) to oversee the mixing of *Wasting Light* at Chalice Studios in Hollywood. Moulder had most recently mixed *Them Crooked Vultures* at the studio, but admits he hadn't mixed off tape since the first Yeah Yeah Yeahs album, *Fever To Tell*, in 2002.

"I was worried 'cause I'd got so used to mixing from Pro Tools," he admits. "I was slightly nervous about it, with it being such a big record. But it was a relative challenge, and I remembered there were things that

were great about tape. It makes you work in a different way. You don't get so bogged down because you can't keep looping around the same sections. I really love what tape does to the vocals, how it rounds them off. You don't get all the transients that pop out and thump your compressor."

Quickly, however, the mixing sessions hit a wall, when Moulder realised that he was struggling to improve upon or even match the rough mixes from Grohl's garage. "James hadn't done anything in particular — it just came off the API sounding like that. There was a certain top-end presence that when you threw it up on the SSL just wasn't there. Immediately it sounded a bit cloudier."

This was good news for Dave Grohl who, keen to stick to his original concept for the album, was actually itching to mix *Wasting Light* back at the garage. For his part, impressing Vig, Moulder wasn't thrown by this sudden development. "There seemed to be a theme and a story to the record," says Moulder, "and us being at Chalice didn't seem to be part of it. The whole record was done punk rock-style in the garage, and it seemed a little odd to go from that to this other studio in Hollywood."

"There's a lot of mixers I know who would not want to do that," Vig stresses, "who would not want to go to manually mix in this room where there's no acoustic treatment. But he did, and at points, Alan, myself, James and Dave were squeezed in at the console because we needed eight hands on the board to do a mix. Each mix became a performance. And of course, we didn't have inputs for 48 tracks, so we mixed off the 'B' reel. So the drums are all the second generation, pre-mixed bounce. That's just the way it was."

Bending the analogue-only rule slightly, a sprinkling of digital reverb was added to the mixes from an Eventide 2016. At the same time, two Lexicon PCM42s were used for delays, along with an Eventide Eclipse used for further vocal doubling. Moulder would send mastering engineer Emily Lazar (The Lodge, New York) rough mixes for advice on EQ. "She got back to us and said, 'The top end's better than Chalice. Bottom end isn't.' There was probably more for her to do on this than there would have

## Too Radio Friendly

'Only I Should Have Known', the song featuring Krist Novoselic on accordion and bass, had to be re-recorded from the feet up. "We tracked it and I thought it sounded good," Vig says. "But Dave thought it sounded too 'parted-out', like I'd worked out the arrangement too much. He said, 'You're trying to make this into a radio single, it's never gonna be a radio single. I don't think I was really trying to consciously turn it into a single. But that's how I work, I try to get parts of the song really focused. And Dave said, 'I need this to sound really raw and primal,' so we went back and re-tracked that at the 11th hour, like, the last week in there. Taylor played much looser — instead of worrying about the parts, he put crazier fills in that were almost Keith Moon-esque, and Krist played this crazy bass overdub in the middle."

"When Krist plugged his Gibson Ripper into the Hi-Watt amp," Grohl recalls, thrilled, "he played the bass line he came up with in his head and, I'm not kidding, it was so undeniably Krist Novoselic that Butch and I just looked at each other and laughed."

been normally, but that's because we were in a pretty untreated room."

## Spot-on Rock

So, with job done, were Moulder and Vig relieved to get back to Pro Tools? "Well, I wouldn't say no to mixing from tape again," the former offers, diplomatically. "But I'm not throwing my Pro Tools out."

"Y'know, I am glad to get back to Pro Tools," says the latter. "The thing is, the Foo Fighters are great players and a lot of young bands I've worked with, it would've taken twice as long just to get good performances."

Despite the various trials along the way, though, both Vig and the Foo Fighters are clearly very happy with the distinctively live-sounding, comparatively raw production of *Wasting Light*. "People say it sounds honest, unlike anything they've heard lately," Vig states. "I think we're just used to hearing everything so tight and perfect and Auto-Tuned these days. That sounds great, but this sounds *real* somehow."

"It was quite an experience," Grohl concludes. "We weren't letting anything slip through the cracks. It all had to be spot-on rock, y'know. I think everyone will agree that it was the most fun we've ever had making an album. For the three of us to be together again, Butch and Krist and I, it was a wonderful thing. It was more than making an album." ■■■



As well as the main garage space, a small additional room was used as an isolation booth for tracking amplifiers

# SOUND ON SOUND

The World's Best Recording Technology Magazine

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