



Photos: Mick Hutson

Only one man would be crazy enough to bring a grand piano to a festival... Joe Leach in the Cowshed keyboard area.

Grand Designs

Joe Leach & The Cowshed Glastonbury

This year's Glastonbury Festival boasted a recording studio built of straw — complete with 24-track tape and grand piano. SOS followed Joe Leach's project all the way from blue-sky thinking to muddy reality.

TOM DOYLE

Six years ago, during the notoriously muddy Glastonbury Festival of 2005, studio owner Joe Leach was wandering in his wellies through the site's Green Fields area when he chanced upon an eco-building exhibition that was to inspire a highly ambitious plan.

"Someone had built a straw bale two-room structure with no roof," Leach remembers. "It was just a demonstration of how you could put straw bales together. Very simple. But I went inside and immediately noticed how quiet it was

in there. I stood on one side of the wall and my wife was on the other and I said, 'Scream at me!' — and I couldn't hear her. So that lodged in my mind the idea that it would be a really good material to build a studio out of."

As a Glastonbury regular, Leach had often wondered why no-one had ever considered the possibility of installing a recording facility at the festival, given the sheer number of musicians who pass through the site each year. But it wasn't until 2010 that he began fully exploring the notion of rebuilding his North London studio, The Cowshed, at Worthy Farm in

Somerset. Festival partners Greenpeace were immediately interested in the scheme, entitled Raising Voices and designed to rekindle interest in the protest song, but Leach and the environmental activism organisation quickly realised that they didn't have enough time to make the project a reality in time for last year's festival. However, for their 40th anniversary in 2011, Greenpeace decided to make The Cowshed Glastonbury the centrepiece of their annual presence at the festival. Through a tie-in project called The Cowshed Cut, also dreamed up by Leach, the organisation hoped to help raise funds for their Rainbow

Warrior III protest vessel by releasing a collection of recordings by 'name' artists recorded at the studio and released as a limited edition box set of 12-inch singles.

"The original Rainbow Warrior was financed by a benefit gig by Joni Mitchell, James Taylor and Phil Ochs," says Leach. "So Greenpeace have always had a connection with music. Then, especially in this so-called age of austerity, the idea of Raising Voices highlighted the fact that there seems to be a bit of a gap again for protest artists. So it made sense on a number of levels."

Before The Storm

Ten days before the festival is due to open, Joe Leach sits in a North London pub, sipping his Guinness and considering the enormity of the challenge he has set himself. "Yeah, it's all a worry really," he grins. "You're always thinking, 'Is the thing actually gonna work?'"

A few months before, he had drawn up a basic plan for the studio, setting out its dimensions — 18 metres in length, 9.5 metres wide and five metres high — and given it to Greenpeace. They immediately set to work a pair of eco-builders, Anthony Perrett and Tom Redfern, who spent a month prefabricating the building's frame. "It's a big build," Leach points out. "It would have cost £40,000 if it was done using non-volunteered labour and without the access to materials from the Bristol Wood Recycling Project, which Anthony is very involved in. So that's kept the costs down to the point where it can be done for £17,000. It's for all intents and purposes a permanent structure. You could leave it there and it would last for 100 years with all the right maintenance."

Starting with a frame constructed from raw logs, the team have begun filling in the walls, Lego-like, with straw bales, before adding the roof and filling it with more bales, while at the same time laying a raised wooden floor on top of yet more bales.

"Straw bale is not really known that well as a building material and yet for a recording studio, it's incredibly good," Leach reckons. "In a normal studio, you have your hard shell and then you build within it your room within a room and start treating the internal acoustics, which takes a lot of expense and tweaking.

"This is completely the opposite. Ninety-five percent of what hits a straw

bale just disappears. So essentially you're working in an anechoic room, from subsonics right up to high frequencies. The challenge will be actually creating reflections within the room. How that translates in real terms is what I'm about to find out. On the walls, we're going to hang large wooden panels that we then paint or decorate. We'll just do what we can to brighten it up."

A major concern, of course, in building a recording studio at a music festival is the sound that might leak into the environment from the many surrounding stages.

"Is putting up enough straw bales going to cut out all of the subs that stray on the site?" Leach wonders. "I hope so. I wanted the windows to be done to a certain specification, which they sort of have been, but when I went down and tapped one of them, instead of going 'dop, dop' it went 'boing, boing'. And it's like, 'Well that frequency you hear is gonna get straight through.'

"As long as I don't go in there and just can hear everything that's going on in the festival, I'm happy. If you were to build a commercial studio that had to withstand the amount of sub bass that kicks around on the Glastonbury site, you would need a double skin all the way around. They kind of offered me that and I was like, 'No, let's keep it simple, let's make it as cheap and effective as possible.'

"There'll probably be quite a bit of high-pass filtering going on if it's acoustic music. If it's rock & roll, it really won't matter because the volumes in the studio will obliterate anything that sneaks in. And also, there's the fact that what's going on at Glastonbury is what's going on at Glastonbury. It's part of the vibe. Just as long as the room doesn't turn into a giant bass trap that makes things horrendous... which I'm sure it won't. I wasn't sure that it wouldn't a week ago and I stayed up in bed just worrying all night."

Big Ambitions

During the planning stages for The Cowshed Glastonbury, Leach contacted a number of equipment manufacturers with the hope of borrowing gear for the studio. Audient were the first to come on board, offering to supply one of their new ASP8024 desks for the project. They in turn tipped off Quedsted, who contributed a pair of V3110 monitors. >>



“Any more rain, and we’ll have to bring the artists in by boat!” The Cowshed building nears completion.

because the truck couldn’t reverse up here.”

The studio building is wholly impressive, however. “It’s such an extraordinary thing to have this level of equipment in such a compromising environment,” Leach points out. “It’s quite an ambitious ask of everyone. We didn’t do it by halves. I always felt that if we pulled out the stops and did it as properly as we could, that’s the point where you’d get the wow factor. It’s one thing to hear that there’s a recording studio at Glastonbury. It’s

another thing to see the building. But then you go in — and the grand piano and everything is there.”

Leach leads SOS through to the ‘green room’ porch at the back of the building, invites us to take off our wellies (the studio, naturally, being a welly-free zone) and guides us past the No Smoking signs — important, given the amount of straw around — and into the studio itself.

“What I would say is that straw bale is not as soundproof as I thought it was going to be,” he admits. “The bales are actually fairly light, so you end up with a little bit of bleed from the festival at the low end, but certainly not enough to

» Avid then agreed to provide a Pro Tools rig, before KMR Audio weighed in with a generous £30,000 worth of high-end outboard, including a Neve 8801 channel strip, a Neve 33609 compressor/limiter, an API 2500 stereo compressor, an ADL 1000 Tube Limiter, an Anamod AM670 Fairchild-style compressor, an API Lunchbox boasting two API 550s, and a Manley Massive Passive tube EQ.

From his own studio, Leach will be bringing his Otari MX80 two-inch 24-track tape machine and his Otari MTR12 quarter-inch two-track, along with his classic keyboard collection, including his Wurliizer EP200 and Fender Rhodes 73 electric pianos and his Roland Juno 60. In addition, he is planning — some might say ambitiously — to move his grand piano to the site. “I was going to take my Hammond, but it turns out you can’t run one off a generator,” he says. “Apparently, the motors in a Hammond are AC controlled and they rely on having a very stable 50Hz source, so any generator ‘wow’ will translate into out-of-tuneness.”

The original plan had been for the equipment to be moved to the site on Tuesday, eight days before the festival site opens on Wednesday 22 June, but when we speak, poor weather has already been causing delays.

“There have been hiccups,” Leach says. “Not least caused by the weather, which has been fairly inclement. I’m hoping that it gets it out of its system and then things dry up. But so far it’s been the exact opposite from last year, which was a hot, dry June. I’m getting there on Friday now, when the gear

arrives. Then it’s all got to be removed from cases, fitted and debugged. I’m doing an inventory of every piece, right down to the individual cables, so it doesn’t go astray.

“But I’m sure,” he states, with a mixture of excitement and mild trepidation, “that it’s going to be fine.”

In The Mud

Thursday 24 June, and in the Green Fields on Worthy Farm where The Cowshed Glastonbury is located, conditions are fairly hellishly muddy. “It’s been wet,” Leach says. “But it wasn’t nearly as muddy as this. One of the highlights was eight people carrying a grand piano up the hill through the mud



Silvia Vermeulen and Teo Miller at work on the Audient desk.

An Inspector Calls

Once the gear was all up and running, Joe Leach and the team were ready to receive the festival's on-site Health And Safety officers, for what turned out to be an interesting visit. First of all, Leach had to argue that it was a touch unnecessary to have an 'Earplugs Should Be Worn' sign placed behind the drum kit. "I said, 'Look are you really gonna tell a drummer, who's spent his whole career clattering at over 100dB, that we're gonna have to put a noise safety sign above his drum kit?' They said, 'Well OK, it's probably not necessary.' So we didn't do that."

As chance would have it, one of the officials turned out to be a former sound

engineering lecturer who quickly became more interested in the sound than the safety of the studio, pulling out audiophile jazz-fusion CDs from his bag to test the system. "He's going, 'Oh, this one will test the mid-range and this one would be good for the bottom end,'" Leach laughs. "So he was in there for about half an hour and we were all standing around while he's supposed to be doing this Health And Safety test. His phone rings and he says, 'Oh I'm in the middle of a very tricky assessment at the moment, I'll be a little while yet.' Then he puts the phone down and gets up and he leans in to me and says, 'This is the best place in the whole festival.'"

interrupt the ambience of the room and the flow of the session."

The Cowshed Cowell

Already, the audition process for musicians wanting to take part in Raising Voices has begun. First, any hopeful recording artist has to perform on the small, tented Chicken Shack stage, equipped with a vocal PA, plus guitars, amps and keyboards. If they make their way through to the second phase, they will appear on the larger Cowshed stage, which faces into the Green Fields arena, where they will be judged by the cheers (or otherwise) of the festival goers, as well as by members of the studio's four-strong production/engineering team: Leach, Teo Miller (Placebo, Black Box Recorder), Lin Gardiner and Silvia Vermeulen.

It's a bit like a hippy *X Factor*, really. "Yes, very much," Leach laughs. "That's the way we want it to be. Without all the bullshit. When I see the judging on that show, it just strikes me as so unproductive. What we're trying to do here is to give punters and fledgling artists an insight into the recording process."

Out in the live room, a band called Ziegler Co are running through their anti-banker anthem 'Bad Men', while in the control room, Leach and Teo Miller listen back to a mix of a recording made yesterday by a 12-year-old boy called Spencer Reid, who'd impressively led The Cowshed Glastonbury's house band Eyes On Film through his self-penned protest song, 'Get Them All Out'. The piano and drum sounds, especially, stand out as being particularly tight and rounded. Both producers say they have been astounded

by the separation in the live room.

"It's a really good size, and it soaks a lot of sound out so you can get good separation," says Miller. "Although everything's close in the room, the separation is really good. So that's been a bonus. And it's cosy as well."

"We did a test recording with the grand piano," says Leach, "which is adjacent to the drum kit, with a one-metre-high, straw-bale divider between them. With the drums at full tilt and the piano playing, when you cut the drum mics, the drums almost completely disappeared from the piano track."

The drum setup is based on the 'Glyn Johns' overhead method, using two Coles 4038s, plus a Beyer M201 on the snare and an AKG C460 on the hats. "Then we've got the drums bussing into the Fairchild copy, which certainly adds a bit of magic and fattens it out. Teo patched it through the Lunchbox, so we've got one of the API graphic EQs on the overheads and the 550s on kick and snare."

While the straw bale hasn't succeeded in completely cutting out bleed from the festival into the studio, the soundproofing between the live room and control room has been more impressive. "You'd be surprised how much a straw bale really does work," Miller stresses. "But we've arranged the instruments so that you get away with it. Put it this way, if the bass was right against this wall, it would affect stuff. So we've had to move things around a bit to get it to work."

A Handful Of Dust

There have been other setbacks, however, not least the lorry carrying

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» the gear breaking down on the M3, having mysteriously lost its prop shaft somewhere en route. In the control room, meanwhile, there has been a problem with dust falling through the roof onto the equipment.

"That's the ceiling that I insisted went in," Leach says, gesturing above our heads. "The builders had it in mind that they would just fill the gaps between the rafters with OSC timber and panels of what look like Rockwool, but are actually made out of wool. They were filling them all across there, but my feeling was that the roof would become one giant bass panel and project the low end into the studio. So what we was put straw bales in the ceiling above a membrane of hessian. And it works, but little bits of dust drop out of it. So we covered the control room ceiling with a plastic sheet to prevent that from getting into the desk."

"The dust isn't such a problem in the live room because we're putting covers on the mics at the end of the day and it's really only the mics that we could have a problem with. It's a low level of dust, but you wouldn't want it in the desk. We've promised Audient that it's an absolutely pristine environment and that's what we've delivered."



Meanwhile, the Otari MX80 is holding up well following its journey. "When I put the tape machine in place and whacked the tones on, it was pretty solid. I checked the azimuth and it didn't need adjusting. So I lined it up because the level of the Pro Tools system was a little bit different to mine and it's been performing really well."

Almost There

By Sunday, Joe Leach has been running The Cowshed Glastonbury at full tilt for four days. Friday and Saturday have been mild and rainy, but today it is a blazing hot 31 degrees, so an air conditioning unit has been plugged into the control room in the hope of keeping the equipment at a workable temperature. "It's taken the edge off the room," he says, "but it hasn't coped with the equipment as well as it probably should have. But we're just soldiering on."

Recorded highlights over the past couple of days have been numerous. For The Cowshed Cut, Leach and the team have hosted Jah Wobble laying down an African dub track called 'Nine', Billy Bragg singing a version of the Carter Family's 'God Gave Noah The Rainbow Sign', the Noisettes

playing their just-minted Guy Chambers co-write 'Let's Play' and Stornoway turning in a rendition of 'We Are The Battery Human'. "Stornoway absolutely loved the studio," says Leach, "They went in and listened to the playback and said, 'Oh, if anything, it sounds better than our album really'. So that was a really nice compliment."

Meanwhile, Raising Voices has thrown up many new discoveries (currently streaming at <http://soundcloud.com/cowshed>), including Bristol-based singer/songwriter Lori Campbell, loop-pedal guitarist and singer Pat Orchard, and a nine-piece

As well as Joe Leach's Otari 24-track, the Cowshed was able to boast a healthy collection of high-end outboard, thanks to the generosity of its sponsors.



A 'Glyn Johns'-style miking technique was employed throughout on the drums, with Coles 4038 ribbon mics as the main overhead pair.

band from the Solomon Islands called Narasirato Totoraha.

"They played with these very exotic, very long, hand-made piped instruments made out of bamboo," Leach explains. "How do you mic up something like that? There's frequencies everywhere. But actually all you had to do was move your head around, get on the floor, stand up and suddenly you could hear all the elements of the recording in very clear places and then you just made a choice of which mic and which pattern, and before you knew it, it was sounding great. They said it was the best recording they'd ever done."

In fact, only Asian Dub Foundation failed to make it to the studio, on Friday, due to the adverse conditions. "They got stuck in the mud. We were sending Land Rovers out to try and collect them. Then around this moment we had a power cut that took out the stage and the studio lights. But it didn't take out the equipment, so we were plunged into darkness and had to work with a bunch of torches that we snaffled from people's tents. If anything, it added to the excitement of it. Apart from minor setbacks like that, it's been a rousing success."

In The Bag

A week later, with the festival over and the studio broken down, Joe Leach is back at The Cowshed Studio in North London, reassembling his equipment and assessing the — as it turns out — very limited damage.

Closing The Loop

With time of the essence, Joe Leach employed Endless Analog's CLASP (Closed Loop Analog Signal Processor) system to incorporate his tape machine into The Cowshed Glastonbury's Pro Tools recording system. "Essentially, it's an input switcher, but it's quite intelligent," Leach says. "What it does is when you arm the tracks on Pro Tools that you want to record onto, it arms the tracks on the tape machine. Then when you hit record on Pro Tools, the tape machine records and

the CLASP takes the repro signal off the tape machine and dumps it into Pro Tools while you're monitoring the input signal. So you're actually recording the off-tape signal but you're monitoring the input signal and it's all in sync. When you drop in and drop out, it compensates for the head-gap delay. What it means is that you can record a tape session, but you don't have the time taken to do all the transfers into Pro Tools at the end, which has made it possible for us to use tape with this."

"One of my [AKG] 414s managed to get a big dent in it somewhere along the line, and that was about it, really. We did very well keeping any mud or dust out of the studio area and everything came back pristine and as new. We pulled the truck closer in to get the piano out. The load-out was fairly smooth. But certainly the tape machines were all in really good alignment. So yeah, get an Otari MX80 24-track, chuck it in the back of a truck, drive it across the country, throw loads of mud at it, bring it back and it still works like a charm!"

The straw bale studio build has since been dismantled and removed, and is currently up for sale. Now Leach is beginning to sift through the Glastonbury recordings in the comfort of his own studio. "They sound very good. It was a little bassier than it was in the room, so I guess the control room was soaking up a lot of the low end. So we were maybe just erring a bit too much on the bottom. But considering that we were mixing essentially blind, the mixes came across

very true. Certainly if we were to go back and remix them, there'd be more applications of filtering and compression and so on. But that wasn't the nature of what we were doing. KMR gave us a Lexicon PCM96 reverb and that really filled in the spaces left by the dry acoustics.

"There was a lot of bottom end from the site and inevitably that did get through. It was only in practical terms a problem occasionally when it was just an acoustic guitar or piano and vocal track. The band tracks didn't suffer at all. But it was about as good a test as you'd want for the soundproof qualities of a material and the straw bale bore up very well."

Ultimately, then, the venture has proved a success. Which begs the question: would Leach do it again?

"Well, it was stressful," he laughs. "But it was a fantastic thing to do. It generated a load of interest and excitement. So I'd definitely *think* about doing it again..." ■■■



Ziegler Co were just one of many up-and-coming bands who made it through the audition

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