

# Recording Tom Waits

1999 was a spectacularly good year for Tom Waits. At the noble age of 50 he released his most commercially successful album yet. Paul Tingen spoke to engineer Jacquire King about *Mule Variations*.



All those who suspected that Ol' Gravel Voice himself, Tom Waits, peaked creatively and commercially in the '80s were given a rude awakening when *Mule Variations* did incredibly good business worldwide. What's more, Waits achieved this success without making any concessions to popular music culture whatsoever. *Mule Variations* is as stark and uncompromising an album as he's made in the

last fifteen years.

*Mule Variations* is the continuation of a litany of Waits albums that utilise greatly pared-down instrumentation and features unusual instruments in the weirdest combinations. Many of the songs are fairly traditional American folk, country, blues or gospel-inspired affairs, but they're often sung with his trademark deranged, gnarled voice, and framed in a sonic landscape and pro-

duction approach that are as far removed from modern production values as you can imagine. *Mule Variations* occupies a peerless universe that harks back to the dusty Middle American country roads and farms of the '30s, featuring creaking piano chairs, out-of-tune upright pianos, and crowing roosters. It's also a record that wears its analogue credentials on its sleeve, since the cover of the vinyl version contains the proud declaration that it was recorded on 'analogue gear only'. Significantly, several industry figures have declared *Mule Variations* 'one of the best-sounding albums of the '90s.'

## Contrast

All in all, more than enough reason for AudioTechnology to have a closer listen, and so an interview was arranged with Jacquire King, who mixed and engineered *Mule Variations* together with Oz Fritz. A promotional interview CD called *Mule Conversations*, was added to the story, offering certain insights from Waits himself. Listening to the stories that engineer Jacquire King told about the recording of *Mule Variations*, it appears that the singer works as much by a process of trial and error as most in the rock music scene. For Jacquire King, working on *Mule Variations* was his first time with the singer. Apparently, Waits was interested in working with him because of his ProTools expertise. Before recording, both Fritz and King did a couple of sessions together to set up a compatible modus operandi, and then worked with Waits separately.

## Articulate

The story of the recording of *Mule Variations* started in earnest one day in June 1998 at Prairie Sun Studios, 100 miles north of San Francisco.

**Tom Waits:** "It's a chicken ranch out in the middle of nowhere. I keep coming back there because you can take a pee outside. I've done three albums there now."

Clearly Prairie Sun is totally in keeping with the dusty, rural atmosphere of Waits' music, although it's also visited by acts like Van Morrison, Santana, Nine Inch Nails and The Tubes.

**Jacquire King:** "Prairie Sun has three separate buildings. There's Studio A, which has a Trident TSM desk, Studio B with a Neve Custom 80 desk from the early '70s that came from Pete Townshend's Eel Pie Studios and that has 1073-style EQ and mic pre modules. Then there's a converted barn that contains three live rooms. We only used Studio B and the converted barn, which had a huge room that we used as an echo chamber, a medium-sized room of 35ft by 20ft, and a small room of 12ft by 15ft and a 15ft high ceiling – that was called the Waits Room, because Tom likes to record in there a lot. There is no acoustic treatment, just a concrete floor, and big double doors that open right into the driveway by which you enter the ranch. Almost all of Tom's parts, including the vocals, were recorded in that room. In all, 90% of the recording took place in the barn, which is about 50 yards from the control room, so we needed to have a good communication set-up. We had about 20 Neve 1073/1272-style outboard mic



*No Tom, you don't hear any better that way.*

preamps in the barn, so that the mic signal could bridge the 50 yards and come into the desk at line level.

"We were usually tracking him with at least one other person, most of the time an upright bass player, sometimes a drummer. His vocal performance and his piano or guitar, plus the bass, are the basic take. What you hear on the album are often first takes. Tom rarely did more than two or three takes in a row. If he felt it wasn't coming together, he'd switch to piano or guitar and try a different approach, or move to another song. We were always trying to capture a mood and atmosphere. If there was a mistake, or a lyric that was re-written, we would punch it in on the basic take – we never did vocal comps. Tom came in with finished songs, and then tried different ways of executing them. He would try something, and maybe a week, or even years, later he would try it again in a different way. Guitarist Joe Gore told me that *Filipino Box Spring Hog* was already attempted on *Bone Machine* [Waits album of 1992]. There were also several different versions of *Black Market Baby* and *Eyeball Kid*. It was a matter of sonically trying to realise what he was trying to do, and do it very quickly. I would say that Tom is very articulate in the studio, and he will instruct musicians in what to play, but he will also allow them to come up with things. It's a little bit of both."

## Planes, Trains And Chickens

In various cases, instruments were overdubbed over the basic takes of 'Tom Waits plus one', and in several cases all manner of instrumental combinations were tried out, until Waits and Kathleen Brennan (Waits' wife and co-producer) felt they were nailing the right atmosphere. Many unusual ingredients went into the creation of this, from the creaking piano stool on which Waits was sitting to outside recording, in the case of the track *Chocolate Jesus*. As a result there is an exceptionally alive natural ambience to these recordings and some tracks almost sound like field recordings (and *Chocolate Jesus* literally was one!). The ghost of the legendary American field recordist Alan Lomax hovers strongly over the record. The stark and wistful *Pony* – mainly just Waits on a



pump organ, Smokey Hormel on dobro and John Hammond on harp (harmonica) – is a good example of this natural sound.

**Tom Waits:** "We wanted that particular one [*Pony*] bare and by itself, like Alan Lomax's Library of Congress recordings that I love so much. The whole challenge of recording is to find the appropriate environment and atmosphere for the song, to find what suits it. And that's what you spend most of your time doing. Where should we record this? How should we record this? On that one it worked. When I'm in the studio, songs really are, at their best, like little movies for the ears."

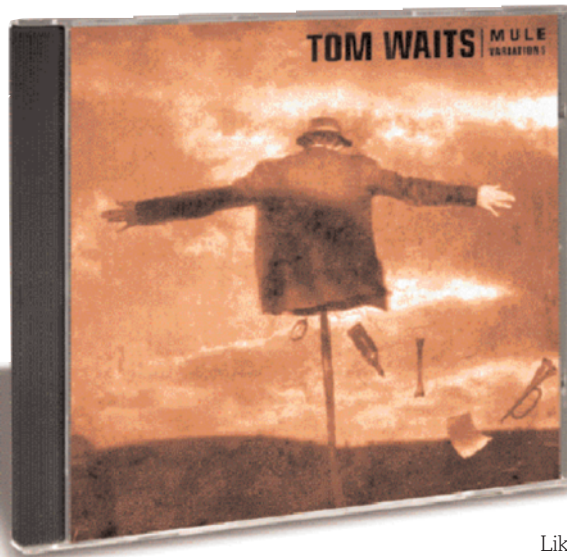
On *Chocolate Jesus*, Waits opened the 'Waits Room's' large doors, and stepped outside with bassist Greg Cohen and harpist Charlie Musselwhite. King recorded them live there, and for some reason a rooster managed to crow in identical fashion, right in the gaps between Waits' vocals, sounding remarkably like a sample. But it wasn't.

**Tom Waits:** "I've found that if you do go outside, everything collaborates with you, including airplanes. I mean, they make movies outside. You have to wait, sometimes, for a train to pass or a school to let out or whatever. Dogs, kids, trains, cars, planes, and chickens will kind of find their own place, if you do go outside."

**Smokey Hormel** [guitarist]: "Tom kept telling me, 'It sounds too pretty, I'm going to open the barn door.' And so he did! You could hear the dogs in the background and see the people walking by on the road below. It was very rustic and homey. You forget that you're playing into a \$20,000 microphone."

Hormel played outside on one of 12 songs that didn't make it to the album (a total of 28 songs were recorded!). The song *Buzz Fledderjohn* was also recorded outside, though not actually recorded on a \$20,000 mic, but on a pair of old shotgun mics. Actually, there are pages and pages to fill with the odd and fascinating things that were recorded on *Mule Variations*, such as the live percussion on *What's He Building?*, played by Brennan and Jeff Sloan, using all manner of found percussion in the studio, or Waits' frenzied mauling of a hotel room in Mexico City that opens the track *Big In Japan*.

**Tom Waits:** "Inevitably, someone will look around the room and find something that, when they hit it, sounds better than a cymbal or better than a bass drum. That's part of the whole evolution and forward development



and movement of recording itself. In Mexico City I had a contest with myself in a hotel room. I wanted to see if I could sound like a band all by myself, without any instruments. So I stood banging on the chest of drawers and the wall and headboard, just trying to get that full band sound. Then it was looped and sampled. Or sampled and looped, or whatever they call it."

### No Hi-Gloss

Like all Waits' records since the '80s, the power and depth of *Mule Variations* lies in the combination of lo-fi and hi-fi noises.

**Tom Waits:** "I got it all in me. I love melody. I also like dissonance and factory noise. It's just a matter of trying to find a way to fit these things together."

Hitting a hotel room and recording this into a boombox, as Waits did, is clearly a lo-fi approach, just as recording a group of musicians outside with an old shotgun mic is. Waits also sang a few things through an amplified megaphone on *Chocolate Jesus*, and through a two-foot long PVC pipe on *Get Behind The Mule*. *Black Market Baby* was filled with a ProTools loop of 78rpm record needle noise, and guitar distortion pedals were used as effect units in the mix. King also had an old Sony reel to reel which was used as a mic preamp. Mic preamps were overdriven and sometimes plugged into each other, and old crystal mics were used. These are all lo-fi techniques. On the other hand, Waits' engineers more often took great care to record the goings on with the best mics possible.

**Jacquire King:** "Tom's vocals were always recorded with an Neumann M49, through a Neve mic pre and Teletronic LA2A tube limiter – although we often altered the sound of it afterwards. The upright piano was recorded with an AKG 414 or a 451, and often put through the Sony reel to reel 'mic preamp'. Acoustic guitars were miked with a Neumann KM84 or AKG 451, guitar amps were either a Shure SM57 or Sennheiser 421, bass amp with a Neumann U47, and acoustic bass with an Neumann M49, U47 or 582, routed via a Neve 2254 compressor. Drum mics were an AKG D112 on the kick drum, Sennheiser 421 on the toms, Shure SM57 on the snare and, on some songs, a pair of AKG TL2s as overheads. Room mics for the drums were a pair of Neumann U87s and a pair of Neumann 582s, and often we'd open the doors from the live area into the echo chamber and put a Shure SM69 there. Another room mic that we used in the medium-sized room was the Neumann 582."

The reason for all the room mics is that Waits is not a

fan of digital reverbs or delays. In some cases plate or spring reverbs were used, but preference was always given to the natural ambience of the room mics, which included the method of sending a signal back to the speakers in the live room and re-recording them.

**Jacquire King:** "These sounds blend in more easily than digital sounds. It is also a matter of this lo-fi/hi-fi dichotomy, which gives a kind of texture to the record – like filters, or black & white give to film. High gloss records convey less emotion. The more polished a sound, the less familiar and human it sounds. Recording in the way we did makes the songs sound more intimate and emotional."

As a result of using these various room mics, King sometimes ended up with a full 24-track, which meant that choices had to be made upon which room mics to use. The 24-track that was used was a late '70s Studer A80 MkIII, with BASF 900 tape, no Dolby, 30ips, recorded at +6, "hit very hard, which gives more tape compression". The album was mixed to analogue, an Ampex ATR102, on a half-inch tape running at 30ips, without Dolby.

### Wise Words

All this tape detail brings us to the questions about the reasons for *Mule Variations*' analogue bias, whether Waits is an analogue stalwart, and if so, why his interest in using ProTools?

**Jacquire King:** "I think Tom definitely feels that analogue has a better overall sound, though I don't think he looks down on digital. For this album he wanted to experiment with playing loops, and the possibility of changing the arrangements on the songs. I suspect he'd been hearing from friends and associates how powerful ProTools was and wanted to check it out. But the overall sound of the album is analogue. ProTools is just a component. I did some loops, such as Tom's mental hotel bashing on *Big In Japan*, the Optigan keyboard sound on *Lowside Of The Road*, and the vinyl needle

sound on *Black Market Baby*. On *Filipino Box Spring Hog* I actually changed the arrangement of some of the overdubs, though the drum and vocal performance are true to the take. In the latter track there were also some voices that Tom had recorded into a small toy sampler for kids, and I sampled that into ProTools. All this was manipulated in ProTools and then laid back to tape.

"I have a large ProTools system – 24 I/O, with three 888 interfaces and 40GB of hard drive space. I just love the things I can do with it, in terms of looping, vocal comping, pitch correction, changing arrangements and so on. I'm not a big fan of ProTools' plug-ins though. I believe real life analogue effects sound better. I love the way analogue sounds. What's so great is that it's possible to get a reaction from analogue,

by overloading the tape. Also analogue reigns supreme for transient sounds, like drums and percussive-type things. But the advantages ProTools offers you, in terms of being able to manipulate sound and fine tune things, are awesome. So I strongly believe in using them both together. Because I did almost only looping, I used ProTools very minimally on *Mule Variations*."

King laid down all ProTools elements to the analogue 24-track for the mix, which also took place at Prairie Sun, without automation.

**Jacquire King:** "Tom feels that with automation you spend too much time going over and over things. Mixing was done very quickly, some songs were mixed in an hour, others took a few hours. There were a couple of songs where the mixes were too complex to do in one pass, and so we recorded them in segments to the half-inch. We applied EQ, compression, natural reverbs, some analogue slap-back delays, guitar pedals, usually running things live. Tom was always present, helping out with the mixes, usually adjusting levels. He would never adjust EQ, effects or ask for a specific effect, but always had a request in terms of mood, or tonal quality or distortion on his voice. Sometimes he would tell us to switch something that we had put on. He often wanted things to sound more old-timey, like a phonograph, and so we sometimes filtered off the low and high end. I also used a Neve 33609 for bus compression over the stereo mix. But we were always going for a mood, and never concerned with cleaning things up. We happily left all the creaking of the piano stool and pedals, for example, like at the beginning of *Picture In A Frame*. What you are listening to isn't all overdubbed and clinical, but a real performance which happened in a very small and intimate environment. We wanted it to sound like that and therefore kept all the mics and channels wide open."

On this, Waits had the last, wise words: "You have to make sure you're not recording the bone, and throwing away the meat. It's very easily done."



Studio B's control room at Prairie Sun.