

# MASTERING THE PAST

*Digging up the old dream*



*Ben's Calf (l to r) Darren Munt, Stephen Bruel, Thomas Green and David Praganell.*

By **STEPHEN BRUEL**

I had a dream.

If you are reading this article then you may have shared a similar dream. It involved playing in the world's most popular band, earning ridiculous money, having way too much fun, fame, more money, supermodels, buying houses for my friends, and then retiring to a beachside mansion at age 30, complete of course with the pre-requisite spectacular view, pool bar, staff, and the latest and greatest 2 inch tape 24 track home recording studio with George Martin on 24-hour call by private jet.

Unlike Noel Gallagher's, my dream did not come true. However, I am not looking for sympathy, as I had a go and had a great deal of fun trying.

## THE DREAM

It was Sydney in the early 90s and my band Ben's Calf, like a lot of other original bands at the time, rehearsed more often than we gigged, played to an ever-diminishing audience in venues further from the cool part of town, and on more and more nights at the wrong end of the week. We got offered a record contract to a small indie label that went broke, someone slept with someone else's girlfriend and it was all over.

So life goes on.... Catching up with some mates recently over a few beers, the topics of why the Cronulla Sharks have failed to win a premiership (sadly I am a life member of this club – another crushed dream), the downside of aging (is there a good side?) and 'you should put your old band up on myspace for a laugh' were raised.

And it got me thinking – is it possible to 'bring to life' old budget-conscious

analogue recordings; how do you go about doing this; and is it worthwhile if the end result is only going to be an mp3 anyway?

## WHAT NEXT?

To help get some answers I enlisted the help of Matthew Gray from Matthew Gray Mastering. With a client list including producers/engineers Caleb James (Rhubarb and Alex Lloyd), Lachlan 'Magoo' Gould (Midnight Oil, Regurgitator, Spiderbait and Jebediah) and Powderfinger guitarist Ian Haug (Powderfinger, Pete Murray and The Grates), I knew if anyone could enhance these old recordings (colloquially known as 'polishing a turd') Matt could. Luckily for me, even with work pouring in, Matt found time to take up the challenge.

Originally recorded on 16 track ½ inch multitrack tape (it was thought too expensive at the time to purchase the masters – dohhh!) for an EP that was never released, I had previously transferred these recordings from cassette to 16 bit wav files a few years back for preservation purposes as the sound was getting noticeably wobbly. I uploaded these digital files to Gray via secure server as part of his online mastering service.

## MASTERING IDEAS

"It was quite obvious on first listen that this recording had never been mastered," said Gray. "There were inconsistencies in levels, frequency and balance as well as a reasonable amount of noise which needed to be cleaned up."

Gray decided that the levels needed to be raised but also felt the dynamics could be improved in order to bring some life back into the drums and music in general. He also noticed a lack of lower subs and

clarity in the high end.

"I usually like to start with a quality digital EQ to make EQ cuts in problem areas but with Ben's Calf, the midrange and low mids were quite nicely balanced so there was only 1 or 2 very small EQ cuts made for each song," said Gray. "With the song Falling For You, I had a single cut at 166Hz by 1.5dB to clean up some of the low mid build up which helped the bass guitar definition.

Additionally Gray added a little bit of harmonic distortion to the low end from 200Hz – 20Hz using a multiband harmonic exciter which helped fill in some of the low end which was missing in the original mix. Gray then raised the levels digitally before sending the signal to the Cranesong HEDD's D/A converter that also had some digital valve and tape simulation. Gray used a little of the Triode (valve) processing for 2nd order harmonics, some Pentode for 3rd order harmonics and Tape for saturation and added warmth, mainly focusing on the Pentode to add a little excitement and colour to the midrange.

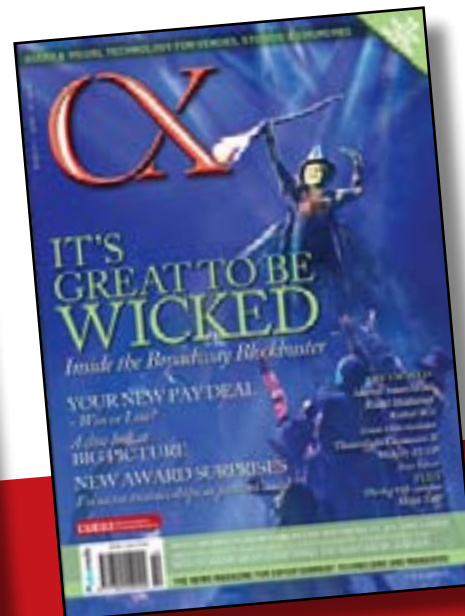
## PROCESSING

Gray used three analogue EQ's (Sontec MES432-C, Buzz Audio REQ.2.2 and API 5500) each at different points where he felt that the EQ excelled. Starting with the low end he added a 0.5dB low shelf at 100Hz (API 5500) and 60Hz with a reasonably tight Q (Sontec) to bring out the kick drum more. For the mids he added 0.5dB at 1.5kHz (API) and 1dB at 3.4kHz (Sontec) with a medium Q for snare snap, vocal presence and guitar clarity. For the high end he added a 0.5dB high shelf at 5kHz (API) and a 1dB boost at 14kHz (Sontec) on the widest Q to bring out the presence

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and air in the vocal as well as further clarity from the cymbals and hats.

"This really helped to bring the vocals forward and also added some high end sparkle and excitement," said Gray. "One challenge I faced with this job was a request to bring the vocal levels a little more forward and I knew that this was not an easy task to deal with given that there were no stem vocal mixes, and the vocals were quite engrained in similar frequency ranges to the guitars and drums."

For compression and levelling, Gray used an API 2500 quad VCA set to 'old' mode.

"I had it set to 'old' mode which is a more gentle compression action, a light 2:1 ratio, longest attack and 0.1 release but with a hard knee," said Gray. "I find that when it's set up in this way it can often enhance the snap and the punch of the drums, which is almost the opposite of what a typical compressor will do."

Gray preferred longer attack & shorter release times with higher thresholds (barely registering GR on the needles) for both compressors. Gray then captured the signal back into the computer with a Lavry Gold AD122-96 MkIII A/D converter at 96kHz.

"I found that capturing at 96kHz

preserved a lot of detail and it tends to sound more natural like the analogue feed and less digital," said Gray. "Once back inside the computer, I used some light expansion to bring up the transient detail, which helped lift the kick and snare out of the mix a little, and I also find this helps to preserve the liveliness of the track even after limiting."

## THE FINISHED PRODUCT

Gray was pleased with the final outcome (as was I) and felt that he managed to make it sound warmer, fuller and louder while adding excitement and enhancing the dynamics.

"It made an old recording sound new and fresh again," said Gray.

So now that these songs have been freshened up, was there any point in undertaking the exercise knowing that they will be crunched down in size and quality through mp3 conversion to suit the mspace format. As a lossy format designed to remove certain information that our ears have difficulty perceiving - usually in the form of high frequency cuts above 15kHz and below 30Hz, according to Gray, a lot of it is psychoacoustic. Gray believes that the better the source sounds

then the better it will sound through the mp3 encoding process and he masters with this in mind.

"One thing I'm mindful of when working with any mixes destined to be converted to mp3 is to focus the high end in the more useable range (mostly just under 15kHz), making sure the critical midrange areas sound well balanced and that the lows are tight and defined," said Gray. "I also try not to enhance the stereo width artificially either to keep the solidity of the mono information intact, as this is one of the more complex problems that Mp3 encoding can affect."

So there you go. The proof they say is in the pudding. You can listen to the mastered tracks at [www.myspace.com/benscalf](http://www.myspace.com/benscalf) and hey, if you have any old band recordings hanging around, it might just be worthwhile getting them mastered.

Oh...I also had another dream. To write a hit musical depicting greed, office politics and artistic aspirations based around Sydney's Central Station in the late 1980s. Matt also mastered four songs from these digital recordings made 8 years ago. You can find these at [www.myspace.com/centralthemusical](http://www.myspace.com/centralthemusical)

OK, now back to reality and paying those bills.....



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