

Being Born is Going Blind

DIY recording in the age of the 'grid'

Ironically, the only thing I really remember about that first session was writing the list, in my bedroom in Wangaratta the week before – though I don't remember exactly what was on it.

It was just exciting to make *the* list, it didn't *matter* what was on it.

What mattered was what the list was for: My first proper recording session at a real studio in the big smoke – a smoky old studio in inner city Melbourne.

It was the first time I would record to a 24-track tape machine.

I was 15 years old. I was not to record on to tape again until I was 29.

Up until that point I did not have much experience in recording. I had no idea what people even recorded *to*... some cables went to a black box thing...? A recording machine in the wall? The only other session I had done was using ADAT. At the time I didn't even understand the difference between tape and ADAT, I had never *heard* of ProTools.

What I learned from that first session to tape was the concept of immediacy in recording and the importance of performance in the studio.

The idea that a studio session is a performance; an act, a sense of urgency towards the documentation of the moment – rather than simply a list of things to get through.

I began my recording career at the historical crossover between the end of the tape age and the beginning of the DAW or Grid age.

From that point it took me many years to get away from the click, the clean, the meters and the grid.

Thus it took me a number of years to take heed of the fundamental lessons that the experience of that first session in the studio afforded me.

In this short essay I will attempt to identify and explain some of the things I have learned in the intervening period about recording and mixing off the grid.

What do I mean about off the grid?

Two things. Primarily when I refer to recording off the grid I mean abandoning the click track, ignoring the wave file image, ignoring the meters – ignoring the DAW. Obviously this is not to say that those things are not useful and that they should never be considered. On the contrary, these things are indispensable for most recording sessions. What I mean is that when I'm approaching a session *off the grid* my focus is primarily on the song/piece, the performance overall, the warmth of the recording, the tone, the harmony and the distortion. I will argue that to achieve the best results in all of these departments one should use ones ears.

Forget about the computer screen. Become blind.

'If you were blind, you would not be guilty of sin; but now that you claim you can see, your guilt remains.' **John 9:41**

The second definition of *off the grid* recording is simply recording done outside of the traditional studio environment. I have had much experience in this department and I will discuss this type of recording later in the piece.

The Song

'Sometimes I would sit at the machine for hours without writing a line. Fired by an idea, often an irrelevant one, my thoughts would come too fast to be transcribed. I would be dragged along at a gallop, like a stricken warrior tied to his chariot.'

Henry Miller, Nexus

The kernel of truth found in all recording sessions is in the germination of the idea. I find that there are a smattering of moments in any given session that propel me towards a new realisation. These moments are precious and are dependent on many variables. Too many to mention here, though its impossible for a seed to take root if it is not adequately watered. The advent of the 10pm bottle shop closures in NSW changed the goal posts in this department. Be prepared.

If the idea is shit then its best to head to the pub than beat a dead horse.

Obviously if you have a high paying talentless horse this is impossible, the beatings must ensue. Though I must point out that this document is not aimed at making high paying talentless horses sound good. There are plenty of other recourses available to aid you in that pursuit.¹

I'm simply trying to emphasise the importance of the song, the writing, the idea – the narrative. This is for the producers, the writers and the engineers who are concerned with pursuing the art form to its limits, whatever that may be, be it a song, a spoken word poem, a noise piece or a 20-minute improvisation – whatever. This may seem obvious but its always worth re-stating: The most important thing in any session – even if the session involves a laptop and nothing else; no mics, no gear nothing... is the idea. The strength of that idea and the belief in the people pursuing the idea – that it is in fact an idea worth pursuing.

Words, Lyrics, Poems & Diatribes

I seldom ever hear lyrics that I like by songwriters that do not read. To write songs one must read. Read everything. The paper, the classics, poetry back to the Greeks, modern literature, contemporary literature, politics, philosophy, history anything you can get your hands on. This does not only apply to songwriters. Producers and Engineers especially should read as it is often the producer and engineer charged with the task of executing the idea in collaboration with the songwriter. It helps if there is at least a rudimentary understanding of what is being communicated through the lyrics, the context (if any), the narrative and the musical and literary tradition the song is born out of. If everybody in the studio can relate to or at least comprehend the

¹ See 'Pensado's Place' <http://www.pensadosplace.tv/> or Warren Huart's 'Produce Like A Pro' <https://www.producelikeapro.com/>

lyrical content of the song it will help a lot. Of course every songwriter and producer are different but I do think this law applies to all – read books and there is a good chance you will write better lyrics.

The studio as sacred space

'In the 1960s when the recording studio suddenly really took off as a tool, it was the kids from art school who knew how to use it, not the kids from music school. Music students were all stuck in the notion of music as performance, ephemeral. Whereas for art students, music as painting? They knew how to do that.' **Brian Eno**

I made the decision years ago after working for the major labels that I would never work on music that I hate or on any corporate advertising. It wasn't a great career move financially but I stand by it. This isn't for everyone of course though I think that the general approach of treating the studio as a sacred space – a place where art is made, is a good one. If you can't take this path then at least for every shit band or artist you record try to record one that you really believe in. I like to treat the studio as one big instrument. It is not simply a 'recording facility' where performances are recorded. It is a canvas, an empty desert road to be driven down at high speed in the pursuit of madness and adventure. The art studio, recording or otherwise, is one of the few truly Dionysian² playgrounds left for freaks and lunatics. It's not an office space, but a time travel device.

Recording to Tape

'Polaroid by its nature makes you frugal. You walk around with maybe two packs of film in your pocket. You have 20 shots, so each shot is a world.' **Patti Smith**

I have already mentioned my first session to Tape when I was 15 and the fundamental lesson I took away from that session was the importance of immediacy and performance in the studio. Fast-forward to 15 years later and I find myself in a studio recording to an Otari 24 track tape machine at the Megaphon studio's in St Peters. I was a little daunted in the weeks leading up to the session as I felt that our band was not ready to record to tape. I felt that the songs were not ready and that we had not fleshed them out enough. The engineer Shane Fahey³ convinced me that we were ready and that the deadline of booking the date would help to get some urgency in preparing for the session. We were playing regular gigs and we were very tight – rehearsing once or twice a week and I was writing lots of songs. Though the whole tape thing spooked me. It took Shane, an older guy who has been recoding since the early 70's to give the band the nudge we needed.

² See Euripides, *The Bacchae*, (Vancouver University 2003) <https://records.viu.ca/~johnstoi/euripides/euripides.htm>

³ For Shane Fahey's Credits see <http://www.allmusic.com/artist/shane-fahey-mn0001814419/credits>

He had also seen the band and played live with us playing synths so he had the authority to give us the feedback we required.

We went in well prepared and we worked really hard. We did not do more than 4 takes on any song and we recorded 18 tracks live in 3 days.

We spent the first day setting up and getting our tone right and getting the sound and by 10pm the first day we put a track down and it sounded great. All the hard work, the pre-production and planning had paid off. The next day we came in early and recorded 10 songs, the following day we recorded 8. It was a luxury to record to tape and I recommend that every producer and engineer should try and record to tape at least once in their lives. The preparation + immediacy + performance aspect of recording to tape can and should be applied to any DAW based recording session.

Recording to DAW

I try to approach recording to DAW the same way I approach recording to Tape.

Retain the immediacy and the emphasis on the performance.

Do the pre-production and try to get it down in a couple of takes.

I try to stick by a few simple rules when recording to DAW that help me retain the soul of the recording. When I say soul I mean the human element, the essence – the mistakes. The goal should be to retain the soul of a recording. If that means leaving in mistakes so be it. Try to edit constructively, not destructively. Even when you're project is loop and edit based.

1. Only do punch in's as a last resort

Or only if there is one small instrument part in the middle of a song. For vocals I'm really against singing every line individually. Or doing punch in's for any instrument overdubs. I think the best vocals are one takes from start to finish. When I read a book I tend to get better enjoyment and a deeper understanding of the thing if I can read the chapter from start to finish without interruption. Punch ins just interrupt the flow, a musician cant fully transcend and lose herself in the music if she is being interrupted every 8 bars. The goal should be to try to do everything in one take, from the original beds laid down by the whole band playing together to the individual overdubs. In overdubs reconstruct a performance environment, get the singer on her feet, get the guitarist in front of her amp standing up as if she is playing to a crowded room. Try to use punch in's as a last resort.

2. Use MIDI as a backup

Use MIDI as a backup or only to output it again to other devices. If you can try to avoid drawing the MIDI with a mouse – play the part all the way through with a keyboard. If you suck at keyboard just practice, it won't take you long to get good enough to key in basslines instead of drawing them. With my Westernsynthetics⁴ project I tried to avoid the reliance on MIDI. I tried to keep it live – even for a beat based electronic project. Brilliant results can be achieved doing the exact opposite to

⁴Westernsynthetics, <https://www.discogs.com/artist/1269345-Westernsynthetics>

this. But I do believe that in most cases the goal should be to get the thing down in one go – avoid the mouse.

3. Don't record to click.

It's a radical notion in the contemporary recording era I know. Though too often it's the orthodoxy to record to click. Ask yourself why am I doing this? Do I really need a click? I suggest that you get the arrangement right first then record it. The time you spend working out the arrangement before you record the song will be far less than having to edit it later. Editing can be a pain in the arse so try and get it right before it goes down.

The minute a click is introduced into a musician's cans it fundamentally changes the performance. Not to mention that the band is locked into a tempo.

Once a click is in the cans the musician's focus is not on the performance but on the click – even the best players who are great playing to a click will be affected.

Plus it's usually an annoying sound...

If you insist on using a click make it yourself recording a tambourine or a mallet or a drum loop and loop it to the length of the track so at least you are playing to a human made click not a computer. Sometimes we need to use clicks but certainly not all the time and as a default practice.

4. Ignore the computer screen

Once the session is set up and all the in and outs are patched and you have a sound; ignore the screen, forget about the wav file images, who cares if its clipping in tools?⁵ How does it sound? Use a spectral analyzer to confirm what you already think based on what your ears are telling you. If you can't pinpoint the frequency with your ears use the analyzer. A good piano player with their eyes shut will tell you what note and what octave any key is when pressed by someone else. Producers and mixers should be able to do the same with the frequency spectrum. Try and train your ears in this regard. Next time you have drinks with your engineer mates play a game called "Guess the Freq" Someone plays a random sound and the rest have to write down where they think the sound lands within the frequency spectrum. After a few drinks you will also be able to get an indication of how your ears deteriorate after alcohol! I worked for a builder once who would make his 1st year apprentices work with only hammer and nails on when working with timber. Only after the first year of their apprenticeship could they use a nail gun on site. New students to sound should try to train their ears before they use an analyzer.

Recording without rack gear

A lot of big mix engineers are mixing in the box now – it's becoming the rule instead of the exception.

⁵ There is a lot of debate around this, I'd suggest trust the ears not the math:
<http://modernmixing.com/blog/2014/06/07/why-you-shouldnt-care-digital-clipping/>

I recently realized that I don't need rack gear or even a desk to get the same results recording as I was getting in big studios with thousands of dollars of pre's, eq's and compressors. Recording in the box is just as possible as mixing in the box.⁶ Though I must concede that this isn't a popular idea.

I realized that to achieve results without a bunch of racks all I needed was a decent soundcard, a nice sounding room and some decent microphones – not even expensive ones, and some good plugin emulations. So I bought some microphone clones of my favorite vintage mics and off I went.

I found that using a cheap newish Focusrite soundcard that I could slam the inputs for the drums sounded good to me. I couldn't do that on my old Digidesign soundcard.

Some modern pre's on inexpensive soundcards handle being clipped really well.

I also found that for some reason recording drums into Ableton and slamming the input signal it sounded better than Pro Tools...I don't know why that is but it just sounded better to me.

For the album I recently completed I did a deal with the local hall committee down the road from my house that I would mow their lawns In return for the use of the beautiful old hall built in the 30's and set in the rainforest for a week.

I took the Focusrite and some mics and some good players who knew the songs well.

I had intended hiring some Neve pre's and some UA stuff but I couldn't afford it at the time so all I had was the Focusrite, my mic's and my plugins.

I recorded all the drums and guitars at the same time – slamming the inputs for some of the drum mics – especially the snare and kick.

Then after I recorded everything I spent a day processing.

Most of the sessions were around 40 to 50 voices.

I would then consolidate each instrument down to one mono channel.

So that after processing I would end up with around 10 mono channels of audio.

Say if I had 4 mics on my guitar (2 for the fender twin, 1 for the bass amp and one for the room) I would place a pre-amp on each mic (UA-610-B or Abbey Rd Red17)

Then a tape emulation (usually UA Studer A800 or Waves J37 or Kramer tape). In between the pre-amp and the tape emulation I might put some light EQ from a Pultec or API and depending on the source material a little compression – never a lot. Maybe a Decapitator (be careful with the Decapitator!), then I would sum the four tracks to one mono audio track by grouping the four mics and outputting each to a bus.

After I did this for every instrument, consolidating 50 or so tracks down to 10 or 12 via analogue (plugin) processing, I would use the export feature in Ableton and hey presto: I have 10 tracks of audio to pull into tools – as if it came through rack gear via a desk and down to tape. I prefer to mix and edit in tools though you don't need to import into tools – This method can be used in most DAW's

I just prefer recording vocals in tools because of the playlist feature and the ease of editing – each to their own

⁶ One of the most famous cases of Pro ITB Mixing is from Andrew Scheps: <https://www.gearsllutz.com/board/so-much-gear-so-little-time/993024-andrew-scheps-interesting-interview.html>

Spending that day processing meant that by the time I imported the audio into tools it already sounded mixed. I also had most of my CPU to play with for additional plugins in the final mix in tools and it cost me nothing in studio or hire fees. Finally, I didn't have a million tracks in tools to navigate – the entire session fit into one window without having to scroll across. It allowed me to get on with the business of mixing. I've mixed sessions with 150 or more tracks before – never again. Any further overdubs were done in tools – using the same method of processing after we got the overdubs down. I have broken down the process in dot points below:

1. Record into Ableton (Don't be afraid to clip the inputs)
2. Process all voices with Tape, Pre-Amps, EQ & Decapitator or Sans Amp, maybe a little compression to taste
3. Group individual instrument mics into one mono or stereo channel group bus
4. Export all audio un-panned, allow at least -3db for additional processing – use force to MONO if you prefer mono
5. Import in to Tools
6. Get a balance with the faders, buy yourself some more headroom if you need (using a Trim plugin or a gain pot on an SSL or Neve Channel Strip)
7. Record any additional O'D's in Tools before loading more plugins on
8. Repeat the above process except this time record the summed audio via a bus out to a new audio track.
9. Begin the final mix with all your plugin CPU available and with all the tracks fitting into one window.
10. Aim to get the mix 95% done in 2-3 hours.

It really does work – the album I did this on most recently is now mixed and mastered and it sounds as good as anything I have done in expensive studios.

You don't need to be loaded with cash to get warm, dynamic and clear sounds these days. It was hard to do this 10 years ago; plugins and soundcards have become so good that this method is possible.

If you can get into a big studio do it by all means – as often as you can but if you cant – try this method.

Using guitar pedals, amps, building sites and bathrooms as substitute for rack gear

If you have no rack gear usually someone has some guitar pedals.

Try putting sounds through a clean boost⁷ and fuzz pedals on light settings to approximate vintage warmth from expensive gear.

Output the sounds to valve guitar amps, find a fire escape hallway or break into an underground car park or building site somewhere and record your reverb that way.

⁷ I use the Fulltone 'Fatboost' a lot <https://www.youtube.com/watch?v=kYvaaQd8IU8>

Steal some junk for percussion while you're there.⁸ Find an old Fender and use the spring reverb⁹ on that instead of a plugin.

If you have to use synthetic plugin reverb put it through an amp or pedals.

Mic up the tiled bathroom. Pump the sound in there and record the verb.

Go on Gumtree and buy a shitty old mixer for 100 bucks and put stuff through that.

Record drums to cassette then pull them back into tools. Get the sound out of the computer anyway you can.

The Room

I have recorded in some strange places. I have recorded on building sites, abandoned shearing sheds out west, warehouses in Berlin & Sydney, community halls, churches, abandoned farm homesteads, bathrooms, fire escape hallways and stairwells, cars, (if you need a dead room but don't have one record in a modern car) Bars (some venues may let you record in there during the day) and recording studios.

If you have a really live sounding room but want a direct or dead sound close mic everything and use dynamic mics and baffling. Likewise if you have a dead sounding room open up the door and record the hallway or record the sounds into a hallway later. Some room's sound better than others but if a recording fails it aint because of the room. A tradeswoman never blames her tools. Work with what you have, you might be surprised that what on paper might be the shittiest room imaginable to record in could be just the ticket.

The Location

Were you yourself, Phaedo, in the prison with Socrates on the day when he drank the poison? Phaedo. Yes Echecrates, I was. Ech. I wish that you would tell me about his death.' **Plato, Phaedo**

I'm big on vibe in recording sessions. All the ducks should be in order so to speak. It should not feel like a prison (Unless that's the vibe you are going for). If you are recording in a big studio for a week turn it into a lounge room, bring in some plants, put up some artwork burn some incense, light candles -whatever floats your boat. Make sure there is plenty of food, beer and drugs (if this is the kind of grease the machine requires) especially if you are recording in remote locations. If you are recording in remote locations go to the local pub and have a beer with the locals. If the generator blows up there is a good chance that someone in the pub will know where you can get one. Open the doors and the windows. Who cares if the crickets and the birds make it on to the recording? If you don't want that just baffle the sound source. A bit of noise never hurt anyone.

⁸ See Einstürzende Neubauten (Halber Mensch 1985), <https://www.youtube.com/watch?v=kn14Rq8sUAg>

⁹ Check out Tubby to see how a real Spring should sound <https://www.youtube.com/watch?v=nae-MdiAJxw>

Try and get the location for free or in kind. Make friends with a rich kid and get the keys to Daddy's holiday house on the beach. Mow the lawns at the local hall. Get the space for nothing and spend the money you saved on gear.

Preparing, processing and consolidating/summing for the final mix

I have already explained this at length above but it's worth re-iterating.

Spend the time processing, consolidating and bouncing/exporting before you begin the mix proper. Try to get big sessions down to 10 or 15 tracks. Your workflow in the final mix will be infinitely better and the likelihood of a nervous breakdown will be greatly reduced.

Mixing in the box – fix the problems first

Once you have consolidated and bounced everything go read a book or have a break. Take a day off if you can. Once you are looking at a pro tools session with 10 tracks and no plugins loaded with fresh eyes and ears get a balance with the faders. See how it sounds with no plugins. If you took the time to process everything thoroughly it should sound over 50% done.

Work out what sounds the worst and fix that first. The things that take the most time for me to mix are usually the drums and the vocal. Start with that.

Fix the stuff that's not working while your ears are fresh.

Mix at low volume 90% of the time. Turn it up for short periods then return to low level mixing. Ear fatigue destroys good mixes.

Panning

As a general rule I don't like Big Mono.¹⁰ I don't like LCR¹¹ either, its up to you. All I will say is close your eyes and listen. Everything will become apparent eventually. The image could be 2D or 3D, you decide what the track needs. Try and give everything its own space in the image. If I'm using reverb or fx I sometimes like to pan it in the opposite of the original dry voice, but not always.

Distortion, character, warmth – clarity

I use distortion throughout the studio process.

At the instrument stage, the recording stage and the mixing stage.

When I say distortion I don't necessarily mean a 'Boss DS1' with the gain cranked... though this can yield fantastic results on almost anything.

When I say distortion I mostly mean the low levels of distortion found in vintage equipment that can elevate the sound of things. Clean and flat is boring to me. Most of my time spent in the studio is trying to give sounds character. I use pre-amp emulations, old pre amps, old mixers, guitar pedals, tape emulations, tape machines, cassettes, and old valve amplifiers. The 'Sans Amp' & 'Decapitator' plugins have

¹⁰ 'Big Mono = Mic the same source two different ways and pan hard L-R', <http://recording.org/threads/what-is-the-big-mono-mean.19153/>

¹¹ <http://www.audiomediainternational.com/recording/ryan-mccambridge-lcr-mixing/01525>

become indispensable to my mixes. I could do a whole mix using just the Decapitator¹² if I had to. It really is a great plugin. Also, don't be afraid of noise. If it's raining on the tin roof who cares if you are tracking loud instruments like guitars or drums. It shouldn't stop a session, try and work with the noise. Use the noise to give the sounds more warmth, character and clarity.

Rock n Roll + Hip Hop + Techno + Ambient/Noise + Jazz – learn from them all

Listen to everything. There are things to be learned from all types of music.

I cut my teeth producing bass heavy dub, techno, dubstep and jungle. I'm not working in these styles at the present time though learning electronic music production meant that when it came time for me to record rock n roll, I knew how to give a rock band bottom end for example. Try not to get boxed into one sound. Listen to music you hate, you never know you might learn something and you may even come to like it.

Use Negative Space

Negative space, in art, is the space around and between the subject(s) of an image. Negative space may be most evident when the space around a subject, not the subject itself, forms an interesting or artistically relevant shape, and such space occasionally is used to artistic effect as the "real" subject of an image. Wikipedia

My partner and I were discussing recently how sometimes we can get caught piling on the paint, piling on the sounds, filling all the gaps until we have a big block of cheese with no dynamics, no room to move – no negative space.¹³

Dub was invented by King Tubby using the method of *deduction*. In the late 60's and early 70's he took recordings he and others had done by local bands in Jamaica and started taking stuff out, stripping the image down to its bare essence.¹⁴ In his case the essence was the bass and the drums. Small snippets of a spring reverb crash or a skank were quickly faded in and out and a healthy echo tail added to give the recording a spatial dimension that the original never had.

Think about the dead air, the dead space – it may not be so dead after all.

Drums

Some of the best drum sounds I have ever got were with an 80 dollar drum kit bought on Gumtree. There are no rules with drums. Experiment with mic'ing, *there are no*

¹² Tchad Blake on mixing The Black Keys with Sans Amp & Decapitator: <http://theblackkeysfanlounge.com/2010/03/interview-tchad-blake-on-mixing-the-black-keys-blakroc-and-brothers-albums/>

¹³ We are told that dead air is the enemy of good Television. Watch an interview Don Lane did with Tom Waits on 70's Australian TV to see an example of somebody scrambling to fill in the space. Waits used the negative space to brilliant theatrical effect: <https://www.youtube.com/watch?v=gCSc6E4yG9s>

¹⁴ For further reading on the evolution of Dub and Jamaican soundsystem culture in general I recommend Lloyd Bradley, *Bass Culture*, (2001 Penguin UK) https://books.google.com.au/books/about/Bass_Culture.html?id=mQSCmWUfxsgC

rules. Learn all the different methods around and then fuck with them¹⁵ – try strange mic positions. You don't necessarily need multiple drum kits to get different sounds though it's wise to have at least a few snares and rides on hand. If you don't gaff and cloth on your friend. Change the tuning of the kit to suit the song.

If you don't have access to drums or are bored of them go and raid a skip bin on a building site and steal some junk.

Go to a car yard on a Friday afternoon with a six-pack for the owner and grab some truck break drums and steel. Drum kits can be boring things. Have a tambourine on hand at all times. If the beat is a bit sluggish skip it along with some percussion. Put the kick drum through a bass amp and the snare through a guitar amp... mic up a hallway and turn it up. Record FX on the drums live King Tubby style – its heaps more fun than drawing lines with the mouse on a screen and it always sounds better. Don't be afraid to record the drums hot and compress on the way down – back yourself, commit to the sound in the studio. Abandon the fix it later attitude. You will just make problems for yourself *later*. This is especially the case with drums.

When using drum machines *layer layer layer* make the sounds dense. Play the thing. If you don't want to play the drum machine then sequence the patterns and fuck with the quantization, unless of course you are going for a robotic on the grid sound. Build up large sample libraries, Record your own samples, sample storms¹⁶, trains, bastards, concrete jungles and brutalism¹⁷ all produce great samples for drums.

Bass

No bass amp? No problem. In fact use the bass amp for the kick drum instead.

Record the bass through guitar amps and DI the bottom end.

For sub bass/beat/based electronic music try and use a clean sine wave, or make sub bass from things like truck motors or a low note on a piano don't be afraid to compress the sine to give it some character. For electronic producers try and play the bassline on a keyboard instead of drawing it.

When mixing bass find the bass pocket in the room. A/B your mix with tracks that you know have solid bottom end. Check the bass in headphones, in cars on phones. If you can get access to a club during the day go in and A/B your bass on a big sound system.

Make friends with mastering engineers – ask them to critique you're bottom end.

Keys

If it's piano try to always use a real one. Pianos cover such a broad frequency spectrum so sometimes it's tricky to blend it into a mix – especially a dense mix.

¹⁵ A good article regarding some different Drum setups/methods: <http://www.soundonsound.com/techniques/studio-sos-drum-recording>

¹⁶ I have uploaded a few drum samples over the years for free use including an electrical storm in Berlin <https://www.freesound.org/people/westernsynthetics/>

¹⁷ See Brutalist architecture, the UTS Building in Sydney is a good Australian example https://en.wikipedia.org/wiki/Brutalist_architecture

Use a combination of room and close mics. Stick your head all around the piano to find the sweet spots when placing mics. Every piano sound is different. Pianos are cheap these days. It's not hard to find a beautiful upright piano for a couple of hundred dollars. The money you pay to go into a studio and record one could be the same as buying an old upright and getting it tuned. A lot of community halls and churches still have a piano - try and get access to them. If its electric piano (Rhodes/Wurlly etc) there are a lot of good emulations out there. Logic's are pretty good and the Native Instruments B4 Hammond is fantastic. But as always, try to find a real one if you can. Old Organs are a bit like Piano's there are a lot of them around going for cheap.

Synths

Synths are a wonderful rabbit hole to get lost down but you can loose precious hours fucking around with a synth sound in a recording session. If it's a traditional microphone based recording session try and have your synth sounds worked out before hand or at least in the ballpark.

Electronic music is different. Getting lost in the synth sounds are all part of it. Obviously this is a big generalization - take this with a grain of salt. The point is really to be prepared if you have limited time.

Get to really know your synths. If you can, always try and use the real thing. Though keep in mind the emulations these days are so good that it doesn't really matter.

I just find it more fun playing with an old Juno than a plugin of one.

Again, put them through stuff to dirty them up if that's what you want - especially if they are soft synths.

Guitars

Valve amps generally sound better to my ears. Experiment with close micing and room mics. Record loud. Put guitars through bass amps for more bottom end. Never use Guitar Rig or Amplitude for guitar - unless you put the effect from Amplitude back into an Amp and mic it up. Amps always sound better - Always.

Amplitude is much better on drums. Shit guitars can sound amazing in the studio.

Buy some really "crap" guitars and put them through great amps and mess with the sounds. Try weird tunings. Try using clean boost pedals instead of distortion pedals. Try letting the speaker break up instead of distorting the signal. Guitars are a rabbit hole too. Don't let the guitar slow the session down. Keep it moving - get a tone and go. Try and get the guitarist to play standing up in front of her amp instead of sitting down in the control room. Get the guitarist to seat it out in front of the rig as if they were performing live at a gig.

Vocals

Don't be afraid to piss off the singer a bit. Grumpy singers *sometimes* do good takes.

If they are not getting the take and you don't want to aggravate them tell them to go for a run – cardio is a great warm-up for vocals. Tell them to meditate. If they don't want to meditate tell them to drink some whiskey but not too much.... Do whatever it takes to help the singer get the take.

Singers should drink honey and lemon tea *with* a beer. Don't just drink cold beer in the vocal booth.

According to Chinese medicine everything we eat or drink should be close to our body's normal temperature. Cold water or beer is bad for metabolism *and* vocals. Try not to let the singer get high until the take is there. Learn about phrasing and enunciation. Study the greats: Louis Armstrong, Sinatra, Nina Simone, Ella Fitzgerald and PJ Harvey. Learn to coach inexperienced singers on microphone technique. Practice close warm mic crooning with distant mic projecting.

Some valve mics are wonderful for vocals, so are some solid-state mics. If you can't get hold of a really good mic for a vocal session - Experiment. If all you have is a 57, output the vocal to a guitar amp or another speaker and record that after the fact. If you have a shitty condenser lying around use that in combination with a 57 or 58.

As discussed above try to do the vocal in one take. Punch in's should be a last resort.

If the singer doesn't know the lyrics or they just wrote them, send them off to the bathroom to practice and learn the lyrics for 20 minutes before the take. They don't have to memorize them but it will make reading the lyric sheet in the booth easier.

Don't be afraid to clip the input in some cases as discussed above. If you are in a hall or a big room record the natural reflections of the room. Often you won't find a better vocal reverb than this in a plugin.

DeEssing

I can't talk about it right now...¹⁸

Preparing for mastering

Always leave between -3 to -6 Db headroom for the engineer. Never use a limiter, you are paying a mastering engineer to use a limiter. Why would you make they're job harder? If you want to compress use very little – just enough to 'glue' the mix together. I use an SSL Bus Compressor or the Never 33609 sometimes. I also sometimes like to use the Ampex ATR Stereo tape machine on the stereo bus. A lot of the time I don't use anything. If in doubt don't put anything on the mix bus. Leave it to the mastering engineer to limit and compress. As for mastering yourself – try to really learn what you are doing before you ever release anything. There are lots of mastering engineers out there that are willing to give they're time and show you some tricks. Just hit them up.¹⁹

¹⁸ For some good tips on DeEssing see this article: <http://www.soundonsound.com/techniques/techniques-vocal-de-essing>

¹⁹ See Jack The Bear's podcast he taught me a lot about preparing my mixes for mastering over the years https://www.facebook.com/melbourneunreal/?hc_ref=SEARCH

Expect bad days, expect delays

Shit is going to go wrong. Stuff is going to break there is going to be delays. You will go through days that you think you suck and days you think you sound as good as you're heroes.

If it's not working don't beat a dead horse. Do something else. Come back to it with fresh ears and a fresh perspective. Take regular breaks – even if you don't want to.

Look after yourself and you're mates

Be careful of the drugs, the booze and the temptations that go along with this industry. Those things have brought me unstuck a few times.

Some people can handle it others can't. Know your limits. When it starts becoming more about scoring drugs than about the music you are in trouble.

If you do all those things try to balance it out with 'chi building' activities. Learn to meditate & exercise. Get out of the damn studio chair and go for a walk – even if it's just to the bottle shop.

Happy DIY recording. And remember Punk happened for a reason.

Rhyece O'Neill – August 2016

(The title 'Being Born is Going Blind' is taken from *Townes Van Zandt's – Nothin*
https://www.youtube.com/watch?v=dF_3w_gXing)