

Notes from "Mixing With Your Mind" by Michael Stavrou

(Reader's Note: There are a number of screenshots of diagrams that I'm unable to repost here because of copyright issues. Apologies if notes here don't make as much sense as they would've otherwise with those included. I highly recommend purchasing the original work so you can see these diagrams for yourself.)

- First chapter dedicated to speaker placement. I skipped as I mix through headphones
- You can see his overall mix process on p. 179
- Notes
 - This guy does not do "backwards mixing" in the way Musician on A Mission advocates for. There's a ToC reference to backwards mixing, but the author means something completely different. He's suggesting that you try reversing the audio and mixing that way. It's completely different.
 - He wants us to primarily work with the "left brain" ; this is the creative brain.
- Metaphor of "The Flame"
 - He talks about this towards the end of the first chapter. p. 31
 - Essentially different frequencies come into greater focus at different distances in the speakers. They can't ever all be equally in focus at the same distance, but you can shrink the distance between the tips of each flame. & That's what a good properly balanced mix does. There's very little space between these focal points.
 - I think this metaphor actually could be useful because I do have that monitor emulator. We can probably tweak the distance of the redline monitor and experience a facsimile of the effect he's talking about.
- Microphones
 - Recommends considering an instrument's "hardness factor"
 - Recommends testing your mics and noting how hard they sound by saying numbers into them. After that, you label the mic with the hardness rating you think it deserves.
 - Left off on p.47
- Superstar Lead Vocals
 - This is almost exclusively about recording singers. It's mic placement, signal chain going into recording, etc.
 - 2 notes.
 - Compressor ratios are multiplicative, not additive. So if you send a compressor at 5:1 and then at 10:1, you have a ratio of 50:1
 - He suggests riding vocals through the recording. This makes a lot of sense considering there's all this gear going into the recording. His signal chain is vocal -> preamp -> EQ -> light comp -> recording rig
 - The perks of this is that you have less distortion and less signal to noise ratio as you go through all the gear. I guess I'll alternative is to record somewhat quietly on gear with low signal to noise. So likely just mic -> preamp -> AD/DA. This should minimize distortion. You want to be fairly below clipping because there's nothing there preventing that from happening. This said, it does make sense to ride vocals in the box because they will be hitting comp and EQ etc and you want that to be going in hot.
- Cracking Compressors
 - This is essentially the Musician on A Mission method.
 - 1. Set ratio as high as possible

- 2. Set release as fast as possible
- 3. Drive into audio unit - either by turning down threshold or turning up input
- 4. Adjust Attack to taste. You should be able to really clearly see how much of a transient you're getting now.
- 5. Adjust release. You want this to be as slow as possible while being in step with the groove of the song. He compares it to a singer moving back and forth away from the mic.
- He doesn't endorse the formulaic approach of "it should be fully released before the next hit." He also doesn't endorse doing a metronome-esque thing by running it based on ms conversions of BPM.
- "make the rush of the release a musical component that pushes you into the next beat without pre-empting that beat."
- 6. Lower the ratio as low as you possibly can without losing the effects you created with your Attack & Release settings.
- "The lower the ratio, the bigger the image, though you risk going out of control. The higher the ratio, the smaller the image - although it's more contained. The idea is to make it sound big, but in control."
- Also in regards to hardness factors, he says the lower the ratio the softer the HF but the bigger it is. In this way, compressors sort of affect density. You can squeeze a sound down so that it's small and hard by increasing the ratio or you can allow it to expand.
- 7. Set the threshold. You don't want the compressor comping all the time
- Digital v Analogue
 - Not sure I want to read this potentially skip to...
- The Art of Mixing
 - This chapter seems to have quite a bit of info on EQ, gain balancing & some other important stuff.
 - He starts off by putting everything at exactly equal volume & listening to it that way. (He does -7 VU for some reason.)
 - At the point listening to everything at the same volume, he decides whether the mix needs to be made more full or more clean. He decides along these lines because common criticisms of mixes are that they are "too messy" (which is the negative side of full) OR "too empty" (which is the negative side of clean).
 - Symmetrical panning turns empty into full while asymmetry turns messy into cleanly separated.
 - He recommends soloing a set of instruments that occupy the same frequency & EQing one of them while imagining that you're EQing a different one. His example is an EQ & a piano. He cuts the EQ of the piano, but imagines that he's actually EQing the vocals. This is a good way to resolve frequency masking while also improving main parts without processing them directly.
 - Nifty "3D Compressor trick" essentially, send an uncompressed version of your vocals to a reverb send while sending the compressed version of the mix bus. The reverb sees the uncompressed version. The mix bus sees the compressed version + this reverb of the uncompressed version.
 - He recommends that big "expensive sounds" have a minimal compression.
 - He does recommend compressing in the recording process though.
 - It seems like he does Gain Stage -> Pan -> EQ -> Balance
 - To get a good balance, he recommends listening to the main part of the song, not

- necessarily the part you're pushing up.
 - So 1. Pick main motif 2. Get it at good level 3. Bring up the side part while listening to main motif 4. Get it at a level where it compliments the main motif 5. Repeat for other tracks.
 - He recommends doing multiple quick balances & comparing them one by one. (He does three)
 - You do it quickly to get your creative brain going rather than the logical one.
- Mixing in Mono
 - He spends 2/3rds of his time mixing in mono.
 - He does pans & reverb textures in stereo. Everything else: reverb amounts, balance & "the moves" are all in mono.
 - With panning, you typically want things mid-left because then they don't lower in volume as you go in and out of mono. He defines mid left as 0VU on one side and -7VU on the other. I'm assuming that the important part is that 7VU gap.
- Reverb
 - Typically with reverb you want to either add a rhythmic effect, lengthen tails of notes or place a sound in a particular room.
 - He has a trick to be able to hear the effects of reverb very easily. You run a pink noise loop through a gate that triggers when a metronome hits.
 - The way this is explained is not good at all. He says the metronome should "activate" the gate. I'm not sure if this is meant to let the noise come through when the metronome hits or if it's meant to cut the noise when the metronome hits. I'm assuming that the metronome allows the noise through.
 - The gate settings are "range to maximum attenuation." Attack and release as fast as they will go. Threshold adjusted so the metronome activates the gate. (I'm assuming "activate" is his way of saying "opening.")
 - He then adjusts the attack and releases such that the sound has some "solidity" to it. Once you've done that, sending the output of the gate to a reverb will make that reverb's settings very obvious.
- More reverb stuff
 - A key issue of reverb is that the tails bleed into the next hits of instruments. This typically muddies up the mix. He says it dampens harmonics of future sounds.
 - Definition & diffusion don't mean the same things across all reverbs. One controls "coarseness" at the end of tail & one controls the "coarseness" @ the beginning and throughout the tail.
 - The further away your audience is away from speakers, the coarser the definition/diffusion should be.
 - He talks about how reverb done exclusively with headphones tends to pull sounds far back into the mix. This is because headphone signals aren't subjected to room reverb the way speakers are. Any speaker reverb is doubled - the artificial reverb comes through the speakers. That signal then bounces around creating reverb in the room.
 - He's not super clear what to do here as a headphone user. He implies that each new sound should have its own full reverb tail. I guess this is done by using a ton of different reverbs? Maybe by eating the reverb fairly highly & making it very short?
 - Reverb trick: "when in doubt make it late, not early." Late echoes apparently sound less awkward than early ones. He recommended we read the "Time Machine Effect" section later in the book to understand why that's the case.

- Another reverb trick. With your pink noise gate shorten the decay to 0 & pump up "echo return" to compensate. Listen to the ER & room size vibration. Adjust the room size "until the reverb shaked in sync with the music."
- In "The moves" he recommends tracking throughout in order to make everything a little too loud, but never at the same time
 - It's very important that these moves are invisible. They can't ever be noticeable.
- Recommends putting vocal compressors on after the main fader. For us, this means using a gain plugin to automate loudness prior to compressing.
- Ear care
 - Not a whole lot in this chapter other than the obvious
 - The earwax buildup is in response to loud sounds.
 - Ear aches apparently can be cured by placing small bits of onion wrapping in tissue in your ears. This kills bacteria? It seems like this only works with infections
 - Wear earplugs when partying
 - Mix at low levels and on mono
- Hit record formula chapter is useless
- The speaker process
 - You want solid bass
 - Get speakers of a hardness factor opposite of the quality you want your mix to be of. E.g. if you want hard mixes, get soft speakers & vice versa
 - Depth is the quality you want to find
 - Also it's ideal to get solid bass about 2 feet away from the speakers.
 - There's an earlier chapter called "Mid tuning your speakers"
 - There's a pic attached of ideal speaker width
 - He recommends speakers go 2 feet back from mixing desk