Music Habits

101 music habits & production tips

A handbook of many essential tricks for music makers

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Here are some production tips & personal habits that I have implemented over my 24 year music making career. Some took me a long time to learn & caused me much more struggle & time wasting than necessary. I write this in hopes that I can help you increase your own productive output. You may make some connections to some common themes as I repeat things in different ways to drive important tips home. I hope you find some useful nuggets here.
EQ's

1. Use a hi pass filter (or a low cut) at 120hz or higher on every instrument that isn't kick or bass.

2. Use a low pass filter (or high cut) on sounds that might compete with your hi hats. Usually around 7-8khz works well.

3. 350hz-650hz is typically where you find mud in your sounds.

4. To find offending frequencies (frequencies that hurt the ears or jump out too much), boost the gain on a narrow frequency band & sweep from low to high. When you high an offending frequency, lower the gain until it sounds better. There may be multiple offending frequencies, so you may need to use several frequency bands.

5. It's generally better to lower frequencies instead of boosting if you want a more natural sound & a fuller overall mix.

6. When boosting, it's better to use a wider frequency band. Narrow bands when reducing gain.

7. 11.1 khz is a great frequency to bring out hi hats.

8. Although boosting mids tends to make everything individually sound better, it will make for a cluttered, thin mix with no warmth. Choose wisely which parts you enhance, and choose a different frequency to enhance with each instrument.

9. Often times you'll have several parts fighting to be heard at the same frequency. It's best to choose which sound will highlight the lower mids & which one the upper mids. By sweeping the frequencies, you can find the dominant frequencies and chose a different one for each sound. Whichever frequency you decide to boost on one sound, make sure to lower that frequency on the other sound or sounds.
10. If you choose the right sounds, there is sometimes no need to EQ. Don't feel that every sound needs to be fiddled with.

11. Sometimes adding a bit of distortion or tape saturation to a sound can do a better job at enhancing a sound than EQ. Or sometimes a combination of both, just don't distort sub frequencies. Leave those clean.

12. A slight boost in the 12khz & above range can give your song a nice lift or air. Be very selective if you are doing this on individual instruments.

13. A small boost in the 1-6khz range can help bring sounds forward in the mix, while lowering those frequencies can place a sound a bit further back.

14. Avoid overusing the solo button when EQing an instrument. It doesn't matter how it sounds on it's own but rather how it sounds in the mix.
Compression

15. Kicks & bass can typically use stronger compression than other sounds but be careful if you are using samples that have already been compressed. No need to over do it.

16. Parallel compression can give you the best of 2 worlds by maintaining the original sound & it's transients while adding a tightly squeezed compressed layer. The best approach for this is to add a compressor to a send/return track. Set threshold to around -50db, attack as fast as possible, decay around 250ms & the ratio between 2:1 & 2.5:1. Then you'll be able to add a bit of this effect to any instrument you like.

17. Not everything needs compression, so allow certain parts to sit in the background. Choose your lead parts & supporting parts wisely.

18. Compression can give your parts more "click" or bite & shape the sound in several ways. Start with a high ratio, deep threshold & your release all the way down. First adjust the Attack, only looking for the "snap" or click, disregarding what comes after. Next adjust the release to help emphasize the snap & the body or the sound. Now you'll have an extreme setting so you'll know how the compressor is affecting your sound. Now, lower your ratio to a level that sounds reasonable to you & bring up your threshold until you are happy with the results. If you prefer the extreme settings, that is fine too.

19. You can send a group of instruments to 1 compressor and a lighter setting (1.5:1-2:1) to help them "gel" together. This is helpful for drum layers that weren't all recorded together.
Mixing

20. When mixing a song, it's better to listen to every instrument except the one you are turning up, otherwise you'll tend to mix each part too loud & not notice how each part is effecting your mix. By the time you've mixed the last instrument, the first instruments will sound too low, which can become an endless cycle.

21. Check your mix in mono frequently. This will help you recognize phase cancellation & also help you find panning locations that make an instrument sound clearer in the mix.

22. Generally it's best to start with drums & bass & then slowly mix each part back in 1 at a time. If the groove is compromised or the bass loses it's punch, consider lowering, reworking or removing the part.

23. Check your mixes in multiple sound systems from your car to your computer speakers before you consider it done. Make sure to compare it to a high quality reference song that is similar to your sound.

24. When considering what to keep in a mix and what to chuck out, consider instruments in terms of frequency zones. If you have too many instruments in one zone & not enough in another, you might be able to solve both issues by playing an instrument in another octave. Otherwise you need to either do some sound sculpting with EQ's, so each part has it's own small zone or get rid of the part.

25. Keep in mind that your brain considers sounds with a faster attack or click (stabs, percussion) more important than sounds with a slower attack that kind of fade in (pads). If you want a pad sound to be more prominent, you may want to speed up the attack.
Arrangement

26. Although there are many variations to song arrangement, it's good to start by modeling your songs arrangement after another song you like. You can always change things once you find your inspiration, but this should help you build a song with confidence.

27. It's incredibly important to base your song on something of substance instead of diving immediately into all the tweaky effects. Always start with a basic groove, bass & chord structure. Only after you've build this into something intriguing should you start applying all the glitchy effects.

28. Make sure to create groups for each type of instrument so things stay organized. For example, group all your drum & percussion sounds together, bass sounds together, vocal tracks, pads & effects. Whatever works for you to keep you organized will save you a lot of time.

29. If you are using external instruments with midi, convert those to audio. This will help you avoid any syncing issues & give you greater editing options. You may also want to convert your internal midi instruments as well.

30. If your DAW has a "freeze" function, freezing your tracks can free up your computer's CPU.
Panning

31. It's generally a good idea to pan your instruments before you EQ. This is because the sound of an instrument can change not only by its placement in the stereo field, but also the other instruments in the same panning area. Sometimes panning can solve frequency clashing issues without the need for much EQ.

32. Although certain instruments typically sound best in the center (kick, bass, vocal, snare, high hats), it can really help each instrument be heard to have a few ticks of separation between them. For example, I might put my snare 2 or 3 ticks to the left & high hat 2-3 ticks to the right.

33. Atmospheric reverbs can be panned hard left & right to give your song a wide sound.

34. For hard left & right pans of one instrument (guitars sometimes comes to mind), I like to duplicate the track, throw one left & the other right, but offset one by about 10 ms or until you hear the separation more clearly.
**Sampling**

35. To get a more vintage grit of the old hardware samplers, try bit reducing your sounds to 8 or 12bit with a sampling rate of 10-20khz.

36. Don't worry about a sample being clean enough. Dirty is good. If it sounds good to you, use it.

37. Even though it's good to have quality samples, it's also fine to sample from an mp3. It will usually sound better than old vinyl anyway. Just make sure most of your instrumentation is higher quality to balance out the final result.

38. When using short repeating samples, especially in drum sounds, it's important to add a bit of variation in volume, decay times & pitch.

39. A good way to extend a sampled sound like strings or a pad is to first make sure you are only sampling 1 note (meaning only 1 pitch, not a melody or changing chord). You don't want to sample multiple notes. Next, make sure you start the sample after the initial attack and end it before it fades. Lastly, if your sampler has this feature, set it to play the sound forward & then in reverse non-stop as you hold a key downer. Your sampler may also have "fade" or loop settings to smooth out the edges. This will create a pretty seamless sample. Alternatively, you can just place the sample in your software's arrangement window and duplicate the file to play forward & then reverse for whatever length you desire.

40. Sample from anything that inspires you. Movies, spoken word, the sounds of nature, factory machines & other songs. Repurposing sounds is an art unto itself. It doesn't matter where you take your ideas from, it's where you take them to. Worry about the legal side of things after you've created something beautiful.

41. By layering a sampled loop with a reverse phased copy of itself, you can often get clean sounds in the left & right speakers that were previously obscured by bass or vocals. This is a great way to make use of samples
you might otherwise find unusable. It doesn't always work, but when it does, it gives you access to some pretty cool sounds.

**Sidechaining**

42. Sidechaining is a great way to keep your kicks sounding clean & give your parts a rhythmic "pumping" sound. To do this you'll need a Compressor plugin that is capable of sidechaining. You will drag the compressor to the track you want to add that "pumping" sound to & then there will be an option to choose what track to sidechain from. Typically people like to sidechain to a kick drum for the classic sidechain sound, but you can get really creative by trying other instruments to sidechain to. The setting on your compressor will usually have the threshold between -30 & -50db, ratio around 5:1, a fast attack & the decay between 150-350ms. Adjust the decay until you get the right timing & feel. Adjust the threshold for a more or less dramatic effect.

43. Sidechaining can also be a great mixing tool. Lets say your guitar and vocal are fighting for frequencies. You can simply sidechain the guitar to the vocals so that anytime the vocal come in, it will either lower the guitar volume, or lower the conflicting frequency of the guitar. This trick can really be a lifesaver for cleaning up your mixes.
**Sends/Returns**

44. A send/return allows you to add the same effect to multiple instruments in different amounts. It also saves on cpu usage since it's only 1 effect being run to multiple tracks.

45. Sends and returns are great to use on for common effects. Reverbs & delays especially. Make sure any effect on a return is 100% wet.

**Groove**

46. Quantizing can be a blessing or a curse. If your DAW of choice has groove quantizing or a randomizing feature, use subtle amounts to give it a more human feel.

47. If possible, play some parts by hand without quantizing. Ears perk up when they hear imperfect human playing (as long as it isn't way off of course)

48. In most DAWs these days, you have the ability to analyze the groove of a drumloop or a few bars of a song & apply it to your own work. Groove can powerfully impact the danceability or vibe of your song. It’s not something you always hear, but you definitely feel it.
**Drums**

49. It makes good sense to add a subtle reverb to all your main drums so they sound like they were played in the same room, even if you plan on using a longer reverb on certain sounds. Careful with the kick though. You want your kick to remain as clean as possible.

50. Percussion sounds can have more impact in a mix if they are dry. Especially if other sounds have reverb.

51. It's a good idea to have several drumkits that are General Midi compatible. This makes it much easier to switch between kits without having to reprogram the midi notes. This also gives you the ability to borrow the drum programming from another song's midi file, which are pretty easy to hunt down on the internet.
**Reverb**

52. Reverb can be used to help give your track a greater rhythmic impact. The trick is to adjust the decay of the reverb to fade out right before the next 1/4 note (or 1/2 note) comes in. This will create another element of rhythm and can have a dramatic impact on your song's groove.

53. Use a predelay to give your instruments dimension while not losing the clarity, or as an interesting delayed sound. Works great with drums.

54. For most sounds you add reverb to, you'll want a highpass filter to remove low frequency reverb. You want to keep those low frequencies as clean as possible.

55. Reverse reverb can be a really cool effect and it's not hard to do. Simply reverse a sound. Apply 100% wet reverb to the reverse sound. Render the resulting sound. Re-import the sound as a layer to your original sound.

56. Avoid reverb on your kicks unless it's a special effect or the beginning of a breakdown.

57. Reverb plays a huge role in giving your song dimension & depth. By using different settings for certain instruments, you are able to make some things appear close (little to no reverb) to sounds that appear distant (longer reverbs, bigger rooms). It's a good idea to set up multiple send/return tracks with reverbs specifically dialed in for front, middle and rear of your mix.

58. Your "front" reverb should be set to have bright early refections & a shorter decay.

59. For a "rear" reverb, go for a darker sound by adjusting the high frequency damping & with a longer decay. You'll still want a high pass filter set to 100-120hz.
60. There are several types of reverbs & each plays a different role & gives a different sound. There is Plate reverb, spring reverb, convolution, chamber, hall, room & reverse. Feel free to use this link as a quick reference http://www.musicsoftwaretraining.com/blog/2011/04/27/how-reverb-works/

61. Here's a reverb trick used in Star Wars & others to double the apparent size of a room. Sometimes you just don't have access to a large enough room for the reverb you're looking for. The trick is to first record your sound dry. Now let's say we have a room that is 20x20x20 & we want to create the sound of a 40x40x40. You would record the sound being played in this space at twice the original speed (you can do this by sampling the original sound & playing it an octave up). You then take the results & play it at 1/2 speed. This will return the sound to it's original speed & pitch and give you the illusion of a much larger space. Finally layer this reverb with the original sound and the effect is complete. Real reverb, no plugins.

62. Increasing reverb decay times can create a nice building up feeling. Pulling back the reverb quickly can put a song back in motion & re-energize your song. Especially useful in club music.
Delay

63. Adding a subtle triplet delay to a simply melody can create more depth and complexity while adding to the overall groove. Works great for percussion too.

64. Replacing some of your reverbs with delay can help clean up your mix as delay is less dense. The delays should be a straightforward 1/4 note or 1/2 note instead of an unusual timing.

65. Like reverb, it's best to remove the low frequencies of your delays to keep your mix sounding clean.

66. Experiment with putting the delays wet/dry above 50% to create odd but sometimes very interesting timing changes of your parts.

67. A long delay followed by a filter with an Lfo sweeping frequencies can create great atmospheric extras to your music. This works best as a send/return track. You'll also want the low frequencies removed.

68. Just so we're clear, delay should be avoided on sub bass frequencies
Layering

69. Most cool sounds you hear in a club track are multiple sounds layered together. Don't expect to recreate it with 1 sound. Use one layer to dial in the lows, one for the mids and another for the highs. EQ appropriately to make room for each layer. Add a little compression to help them gel together as one sound.

70. Duplicating a sound and pitching it up or down an octave can really help a sound stand out. This duplicated track usually doesn't have to be very high in volume to make an impact. In fact, subtle is probably better.
Bass

71. When it comes to mixing bass, louder is not necessarily better. If you push the bass too hard, you'll lose clarity in your mix. If you play the mix in your car and you can't hear anything but thump thump, you know why.

72. For electronic music, pretty much any bass sound will benefit from a sine wave taking up 120hz & below area. Make sure to put a high pass at 120hz on your main bass sound.

73. Much like kick drums, the "bite" in your bass is typically at around 1-3khz. this frequency helps the bass cut through the mix, so try boosting those frequencies a bit before boosting your whole bass volume.

74. Pitched down 808 kicks can make a great tone for a sub bass tone. Experiment with a slower attack as well.

75. Keep the sub frequencies mono even if you are using stereo on the upper frequencies.

76. You typically don't want lots of sub on both your bass & your kicks if they are playing at the same time. it's best to eq one for the sub frequencies and the other for the higher bass frequencies. This will make a cleaner mix and a much better sounding low end.

77. Bass getting lost in the mix? Try adding a second layer with just a click sound that hits at the beginning of every bass note. wooden or metallic percussive samples with a very quick attack & decay work really well. Slight variances in the click can add more realism as well.

78. If you are using bass samples, make sure they have a solid low end to start with. Trying to boost bass EQ's won't help if there is nothing there to start with.
Duplicating your bass track & playing the same part in a higher octave can add richness to your bass sound. You will generally keep this layer lower in volume.

**Sound design**

90. Slightly detuning 2 oscillators with the same wave type (sine, square, saw etc) creates a thicker sound with a slight chorus effect. Great for pads but worth trying on just about anything.

81. It's much better to know 1 or 2 synths inside & out than barely knowing 50 synths. Take the time to choose one synth & go deep with it.

82. Remember that complex sounds are produced from simple sounds layered together. As you get to know your wave forms & different way you can alter them, it will become easier to reverse engineer them. The sooner you embrace the basics, the easier it will be to obtain the complex tones that excite you.

83. Spend time with a synth or other instrument just recording yourself making interesting sounds. Let go of the need to make music during these sessions & just record yourself playing around & exploring new sounds. You'll find plenty of great sounds you can cut up & use when you're back in writing mode.

84. Don't do your sound design & songwriting on the same day. It's better to let your mind go without any worries when creating sounds, while songwriting requires more focus & technical brain functions. Separating these habits will give you more productive results with both.

85. An LFO (low frequency oscillator) can add character to an otherwise boring sound. LFOs can control volume, pitch or filter (& many more parameters) changes at a chosen speed. Subtle amounts of LFO can add complexity and richness while more extreme settings can create different sounds altogether. Experiment with these as you make synth sounds or work with a sampler.
Other Tips

86. Close your browsers & turn off the internet when working on music. This way when you get distracted & try to jump on to Facebook, you'll be quickly reminded that you are in work mode & will get back on task.

87. If you have trouble staying focused, work in 30 minute blocks by setting a timer & committing to work for the full 30 minutes. After that you can stop, take a quick break or recommit for another 30 minute block. You'll be surprised how effective this can be.

88. Ghost tracks are a common secret among producers. The basic idea is to grab a loop or section from a song you like and start playing along to it. As you add more of your own layers, you will soon be able to delete the original loop and carry on building your song with the essence of the ghost track still remaining yet still completely your own.

89. Recording things with a microphone around your house or outside can make for some incredibly usable & unique sounds for your music. Go around and tap everything & bang things around in the kitchen. It can be an endless source of inspiration.

90. Without fail, long sounds rising or dropping in pitch, filter sweeps & reverse sounds can add drama & anticipation to a song. Building up white noise with a low pass filter is a standard for many club moments.

91. If you want to finish more songs, start with an idea on a simple instrument (piano, guitar, or bass). It's better to have a basic song structure in mind before you start. Think of it like a blueprint. This will keep you focused instead of getting lost wanking on effects and synth tweaks.

92. Don't start each song from scratch. It's best to create a template with send/return effects you're likely to use, a starter drum kit that sounds good
& some bass and synth sounds at easy access. You can change them later but templates help you get started quickly.

93. Don't judge yourself by the opinions of others who don't understand you & your art.

94. Don't keep adding parts to your track hoping it will solve your problems. If the basic elements don't inspire you, you probably want to rework those before adding anything new.

95. Steal & replace - Instead of agonizing over a kick sound, just sample one from a sample CD or record & move on. You can replace it with your own sound later, but don't lose your songwriting momentum doing sound design.

96. Be ruthless - Avoid getting married to a sound just because you spent a lot of time on it. If it's the weak link in your track. Ditch it.

97. There is no magic plugin. Get really familiar with what you've got & trust that this is enough. Your own limitations are what make you sound like you.

98. Take time to make the first elements of your song sound inspiring, whether it be adding little details to your drums or coming up with a great chord structure. This is important, as the rest of your tune will be inspired by these parts. Failing to do this can result in you realizing that no matter how much time & how many layers you put into a song, it's not going to excite you or the listener.

99. Don't only listen to the style of music you create. Original ideas come from outside influences. Try to make it a point to listen to a full album in a different genre of music once a week. Even a style you might not prefer. You're sure to have a much richer musical palette to draw from.

100. Collaborating with other artists is one of the best ways to boost your knowledge & gain some powerful production techniques. It's best to work with someone who has strengths where you have weaknesses.
101. Work on 1 song at a time. Don't build a cool sounding riff or 16 bar loop & then abandon it to start another idea. You'll never finish anything, and finished songs is all anyone cares about, not how much time you've spent in the studio. If you don't push through songwriting obstacles right when you come across them, you'll never gain the skills that will make you more productive on future songs.

And I'll leave you with an important final rule:

**All rules are made to be broken**