

## Column by Renzo van Riemsdijk (Masterenzo):

### The low end

The summer is far from over but many people are gradually returning to their daily lives. A perfect time to release a new column. The title implies a non-fiction story as a movie or a book but no. Connoisseurs know that the low end is about the bass range of music.

The lower notes of music. The same notes that cause a car's headlights to start flickering as soon as the music is turned up to 10. It's an important frequency range as it impresses listeners. Nowadays the low end seems to be more pronounced than it was decades ago.

Let's have a listen to a sixties record. *Pet Sounds* by The Beach Boys, for instance. You'll notice there is definitely low end but it's fairly moderate. After that let's have a listen to a record from 2020: *Bitterzoet* by Eefje de Visser. A Dutch-Flemish production with a pronounced low end, which is also caused by the lack of any cymbal on the whole album.

You'll notice considerable differences between the two albums. There are several reasons for these differences. First of all, the origin of the bass region is totally different. The bass notes from the Beach Boys album are played by bass guitars. The low end on the Bitterzoet album on the other hand is generated by synthesizers. Those electronic synths are capable of reproducing tight sounding bass while the notes from a bass guitar can only get as low and tight as dictated by the laws of physics.

At school I wasn't very good at physics but I do remember that steady vibration of a bass string becomes more difficult with lower frequencies and heavier string gauges. An electronically generated sine wave lacks these irregularities and can get as low as the human ear can hear. This explains a great deal of the difference in low end on both albums.

Another reason for those differences is genre or more specific, spirit of the age. The Beach Boys were a guitar-oriented pop band. Eefje de Visser's music is about 50 years younger. A lot has changed over the decades with a whole bunch of technical developments. A good example is the introduction of the digital polyphonic synthesizer in the eighties.

When we look at other genres, rock seems to play an interesting role. My guilty pleasure of rock music is *Killing In The Name* by Rage Against The Machine from the early nineties. When I listen to that track I'm always surprised by the lightness of the low end. It's there but it's punchy and not overly full sounding. When I play a more recent Black Keys song after that, I'm stunned by the differences.

There is less low end in (rock) productions than you'd expect. This is not only caused by the low frequencies. Just have a listen to both tracks and pay attention to their treble range. I'm pretty sure you'll hear what I mean.

Renzo

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*More info about Masterenzo Mastering can be found on [masterenzo.nl](https://masterenzo.nl).*