Drum Gear Guide

Drum Heads (this is where most of the tone comes from)

- Thinner (single-ply) heads -> more attack, reduced sustain, less low end
- Thicker (2-ply) heads -> more low end and sustain
- Using fresh, brand new heads and tuning them well is absolutely critical
- Clear heads -> open with more highs and lows. Great clarity and detail.
- Coated heads -> More mids. Highs & lows are reduced. Slightly muffled, „vintage“ sound, less clarity. Can have cool punch and character.
- Modifications, such as pinstripes, dots, muffling rings etc. reduce or eliminate overtones and sustain. This can be wanted and helpful, but you should be careful and use it on purpose, as it can quickly be too much, and can not be undone.

Bearing Edge (has the biggest impact on the tone of a shell)

- How much you hear of the shell, depends on the shape of the bearing edge and the amount of contact with the head
- Centered bearing edges allow the shell to resonate and ”sing“ the most
- With single cut bearing edges almost all of the sound comes from the head
- Sharper edge: more overtones & attack. Open, rich & dense.
- Rounder edge: less overtones, attack, sustain & volume. ”Muffled”, controlled sound.

Shells (configuration, composition, material)

- Smaller diameter: higher pitch - larger diameter: lower pitch
- Deeper shells: less sustain, more attack, lower pitch
- Shallower shells: more sustain, less attack, higher pitch
- Thicker shells: more volume, higher pitch
- Thinner shells: less volume, lower pitch

Wood:

- Maple: pretty linear, even tone. Balanced highs, mids and lows. Long sustain.
- Birch: Slightly boosted highs and lows, slightly reduced midrange. Very punchy. Medium sustain.
- Poplar: Dark sound. Low volume. Full, round lows. Reduced highs and mids.
- Mahogany: Reduced highs. Soft midrange. Big, full low end & low mids (”warm“). Vintage tone.
- Bubinga: Very scooped. Boosted highs and lows. Punchy and loud. Medium to long sustain.
- Ash: Boosted upper midrange. Clear, but smooth highs. Reduced lower mids. ”Warm“, full low end.
- Oak: Strong attack & mids. Slightly reduced highs. Short sustain. Punchy and loud.

Metal:

- Brass: Midrange boost. Clear, open highs. Fat, full lows. ”Warm“ & loud. Rich, musical overtones.
- Bronze: Reduced highs. Boosted mids. Strong lows. Dense overtones.
- Copper: Muted highs. Boosted mids & lows. Loud, dry, ”warm“

- Titanium: Even highs, upper mids and lows. Boosted low mids.
- Aluminum: Boosted highs. Reduced upper mids, boosted lower mids. Pretty ”coloured” sounding.
- Steel: Very bright. Boosted highs. Even lows and mids.

Synthetic:

- Acrylic: Muted highs. Boosted upper mids and lows. Punchy with lots of attack.
- Carbon Fiber: Dry. Balanced and even sounding. Very loud.
- Fiberglass: Very balanced, flat and controlled.

Hoops:

- Triple Flange: This is is the standard. Allows overtones and sustain to. Fully come through. Harder to tune, because it’s flexible.
- Die Cast: Increased attack and volume. Less overtones. Easy to tune. Rigid. Perfect for loud, heavy, modern genres.
- Wood: Less overtones. More mids. Flexibility and tuning characteristic depend on type of wood.

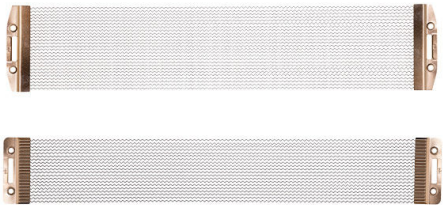
Sticks:

- Very important. Have great impact on the tone
- Very personal choice that totally depends on the playing style
- Thicker, heavier sticks: Louder, more attack, less sustain, harsher more explosive cymbal sound. Can become uncontrolled quickly.
- Thinner, lighter sticks: quieter, softer, more precise. Less attack, but better articulation. More pleasing cymbals. Requires harder hits on the shells.
- Shape of tip and tip material highly depends on the playing style. It alters the attack and articulation. Experiment and see what fits your style and taste.
- Always use brand new sticks and change them frequently throughout the session.

Cymbals:

- Smaller diameter: Higher pitch, shorter sustain. Small cymbals can get harsh and uncontrolled
- Larger diameter: Lower pitch, longer sustain, full sound, more dense, even and balanced sounding
- Thinner cymbals: Darker sound. Less volume. Quicker, more responsive and explosive, Less sustain. Extended durability, because they are flexible.
- Thicker cymbals: Brighter, louder. Slower and less controlled. Can get harsh quickly. More sustain. Not as durable, because they are stiff and crack easily.
- More expensive cymbals tend to sound more expensive
- Thinner, larger cymbals typically record better in most genres.
- Darker, quieter and more pleasing is typically better than bright and loud
- It's much easier to add highs and brighten the kit up, if needed, than it is to tame harsh, uncontrolled and painful sounding cymbals that overpower the whole kit and cover up the attack of the shells.

Snare Wires:



- Mostly a matter of taste.
- More wires: More snap and more actual snare sound. Less volume, less overtones, less shell sound.
- Less wires: Louder, more open sound. More shell sound, more punch, more sustain. Less actual snare sound. Reduced articulation and detail.
- You can also experiment with different materials. Compare and find out what you like most.

>>THESE PRINCIPLES ALSO APPLY TO VIRTUAL DRUMS, BECAUSE DRUM SAMPLES ARE REAL RECORDINGS OF REAL DRUMS. SO USE THIS KNOWLEDGE WHEN PICKING SAMPLE LIBRARIES, OR DESIGNING KITS IN YOUR DRUM SAMPLER.<<

Notes: