Sound Production on Percussion Instruments

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Midwest Clinic: Thursday December 17th, 2015; 10:30 am

Percussion instruments have the widest spectrum of possible sounds. We can play extremely loud, whisper soft, harsh, dark, beautiful and everything in between. However, we generally do not spend a lot of time focusing on the *quality* of that sound. We tend to focus more on placement and rhythm. Can you imagine being happy with a trumpet player who only played the correct rhythm? Of course not! The sound quality coming out of the instrument has a very large role to play in our music making. Generally, percussionists have a lot of time to sit in the back of the ensemble so when they do play, we should give them the opportunity to experiment and be creative with their sound options. If their experimentation works... great! If their experimentation doesn't seem to be appropriate then let them guess again and offer direction if needed. Rather than accept mediocrity and have a group of stereotypical percussionists, let's empower them to be artists, just like the rest of the musicians in the group!

There are three points of emphasis I would like to focus on to make this a reality.

1. The Physical: The physical options we have to produce sound

What sort of mallets are we using? What sort of tuning are we using? What techniques are we using? How can we get multiple sounds out of the same instrument from a purely physical perspective?

2. Listening: Being more aware of the sounds being produced

How can we train our ears and our student's ears to listen for better sounds? How can we listen and anticipate the most appropriate sound?

3. Direction / Questions: Leadership from the teacher

What questions can we ask and how can we give better direction to our students to get those sounds?

Mallet Instruments - Xylophone and Glockenspiel

1. Physical

Be careful not to associate articulation with dynamics

Mallet selection and dynamics are our main tools to control sound on these instruments. Unlike snare drum, there isn't a lot of adjustment we can do to the physical instrument. Not all schools can afford to have a wide array of mallets and sometimes mallets tend to have legs and disappear. However, that doesn't mean you can't use what you have and give students multiple options. I think of the mallet as the articulation. Encourage your students to think of the attack of the mallet note like an attack on a brass instrument. Use the same language you do with wind players, when addressing percussionists. Use words like:

Sharp *Crisp* *Soft* *Warm* *Dark* *Round*

Loud doesn't always = hard mallet

- A loud passage could need a very round, heavy sound. A hard mallet would be way too bright and piercing

Quiet doesn't always = soft mallet

- A soft passage could need very articulate, crisp articulation. A hard mallet, played soft would be appropriate.

This is why the direction "Can you use a softer mallet?" just to get a quieter dynamic isn't always the right choice.

2. Listening

There are actually quite a wide range of timbers on a xylophone. Sure we want to play the right notes but we also want to have a consistent sound. If we play on different areas of the bar we can sometimes be unaware of what a drastically different color difference is being produced. By paying attention to our playing area we can play with a much more consistent sound.

3. Direction / Questions

I like to think of mallet playing like painting. If you told me I had to paint a landscape of the California coastline, I would hope you would provide me more than 2 or 3 colors to use. Comparing colors to sound can work for a lot of students. Even if that analogy doesn't work the concept of having lots of options still does. Ask questions relating back to articulation. I've never understood why conductors dumbed down musical directions for percussionists. Ask for *exactly* what you want! A question like "Can we try to get a darker sound in this passage?" will yield much better results than "Can you use the red mallet?"

Snare Drum

1. Physical

Let's set ourselves up for success. Let's make sure the drum sounds good before we strike it. How the drum sounds is largely due to how it is tuned and set up. No matter how good the player is, if the drum is not tuned properly, it just isn't going to sound good.

Concert Snare Drum Head Tuning

- Top Head: roughly an A natural (as high as a B natural)
- Bottom Head: roughly a B natural (the main goal is for it to be noticeably higher than the top head)
- This is half the battle! Most schools I visit the drum clearly hasn't been tuned in months, if at all!

Snare Tuning

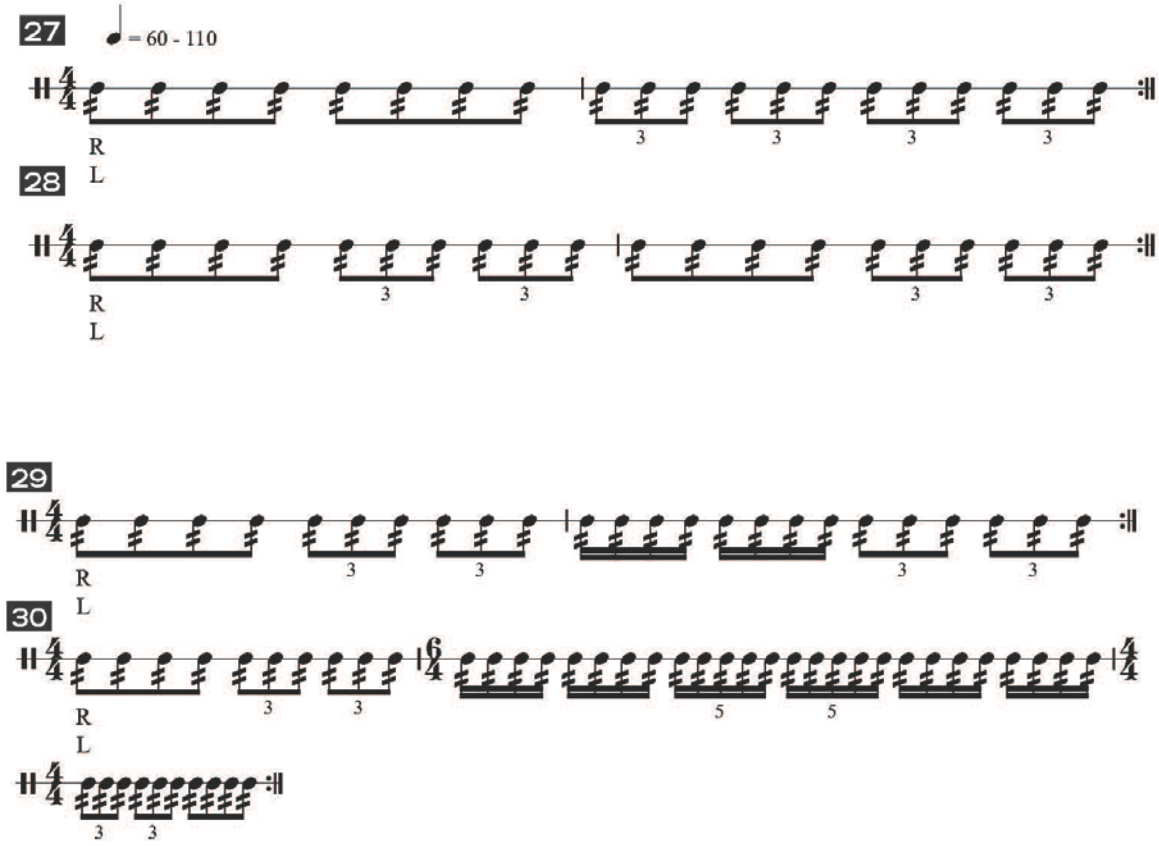
- Don't overly complicate this process. It's not as hard as people think it is.
- Start with the snare mechanism turned on but the snares so loose they are not engaging.
- Slowly tighten them while tapping on the drum.
- Keep tightening the snares until they sound too tight and choked.
- Back them off until the snares have found a happy medium between too loose, and too tight.

2. Listening

Once the drum is tuned we don't have a lot of options for the sound of the drum outside of our control of rhythms and the roll. Snare drummers focus primarily on rhythm. But, I believe the roll is physically the most difficult technique on snare drum. We are trying to make an instrument that does not sustain…. Sustain.

Understanding what a roll *should* sound like is actually very easy. An even, uninterrupted, consistent sound. Getting a student's roll to sound that way can prove to be very difficult. My book, *The Modern Concert Snare Drum Roll* (available through Meredith Music Publications and distributed by Hal Leonard), is a step-by-step guide to developing the roll and provides the examples we will use today.

Using our ears is critical to practicing and performing the concert roll. Using rhythms to practice the control of the roll will help both the technique being learned as well as controlling the sound. Learning to have big ears and controlling the rebounds of the stick in these exercises will greatly improve the roll.



Excerpts from The Modern Concert Snare Drum Roll by William James

3. Direction / Questions

All “f’s” are not created equal!

To help students realize that “f” doesn't always mean to play as loud as possible, I like to ask questions that encourage students to think about their role at that moment in the ensemble. This helps student think about their part in the context of the ensemble and not just as an individual part.

“What are others doing right now?”

“Should I be leading or following right now?”

“How important is my part right now?”

“What is my role in the ensemble right now?”

Granted, there is still a time and place for "can that be softer"

Tambourine

This is one of the most perplexing instruments we play. We can be asked to play rhythms, rolls, or even rock-n-roll shake patterns. The spectrum of timbers and sounds that are possible is huge!

1. Physical

How we physically play this instrument is very important and effects sound tremendously. My main focus on tambourine is timber. We forget that there is a head attached to the tambourine and how our hand comes into contact with the tambourine makes a tremendous difference in the timber of sound being produced. Making sure that sound is intentional and consistent is a big key to playing tambourine.

Striking the Tambourine: Using the Fist vs. Fingers

For some reason our default way of playing tambourine is to strike it with our fist. The fist is a rather large object to use to strike the tambourine. I only use my fist if I need to play at a 90-100% loud volume level. For all dynamics below that a group of fingers or even one finger will suffice

2. Listening

Training the ear to listen for consistency is a habit that will serve a student well on all instruments but especially tambourine. We have already discussed consistency in timber, now let's talk about consistency in the shake roll. All of us have a dominate hand and that hand is usually not the one holding the tambourine. We typically use our dominant hand to play rhythms. That means our weak hand is playing the rolls, which means the roll usually suffers. Just like on snare drum, we don't want our roll to sound rhythmic, we want it to sound sustained. To make this happen, we want to make sure the tambourine is moving in 3 dimensions, not just 2. If the tambourine only moves in 2 directions, the sound will have a rhythmic quality to it. If the tambourine oscillates in more than 2 directions, it will have a smoother sound.

3. Direction / Questions

Treat accessory instruments (tambourine, triangle, cymbals) like they are real instruments. When asking for a change, use real music terms, and use lots of adjectives. Let the student work on figuring out the right sound. There are many different sounding tambourines that can provide lots of great, different colors. Even if you only have one tambourine in your program there are still plenty of different sounds you can get out of that one tambourine. Experimentation is key to finding the right sounds so encourage students to try different angles, placement, and striking areas to find appropriate sounds. Similar to snare drum, ask the student to think about their role in the ensemble.

Cymbals

1. Physical

I think crash cymbals are the most intimidating percussion instrument to play, especially for grade school students. That concern is real when smaller students are asked to control 4-5 pound metal objects while they collide with each other. That can be scary! The greatest issue I see is a lack of familiarity with the instrument and understanding how a crash really works.

A Crash has 3 parts

1. The Crash (the collision)
2. The Recovery (how they come apart)
3. The End (muting)

The Crash

Cymbals have to come together with a flam or the air in between the cymbals will become compressed and create an inappropriate sound - "The Pocket". The top or the bottom of the cymbal can lead but one has to strike first. Make sure the cymbals aren't starting too far apart from one another. The further they are apart, the more mistakes can happen as they come together!

The Recovery - Pulling them apart

Our main concern is how the cymbals strike each other and we often forget that they have to separate. Many air pockets that I hear are because the cymbals stay together too long. Pulling them apart quickly after the crash solves most of these issues.

The End - Muffling

The cymbals ring naturally on their own and have a natural decay. Very often we have to prematurely end that sound due to the surrounding musical context. I encourage students to muffle into their belly. If a student muffles too high they can potentially injure their ribs or collar bone.

2. Listening

Muffling transitions perfectly into listening. When should a note end? Quite often, a cymbal crash is notated with a single quarter note. Should it be long? Should it be short? Listening to the rest of the ensemble can answer these questions. When it does end, how should it end? Quick or gradual? Many times a very gradual decay sounds more musical than a quick one.

3. Direction / Questions

Note length is something you can encourage students to think about. Play a passage without the player performing and then ask them how long the note should be after hearing the rest of the ensemble. This will make the player feel like they are really a part of the ensemble.
Also, encourage students to think about sound in terms of bright and dark. Metal instruments lend themselves well to being described as both bright and dark and are an easy introduction to this idea. Have them experiment with what is more appropriate. Again, if they make a "bad" or inappropriate sound, use it as a learning opportunity.

Closing Thoughts on all instrument

1. Provide similar directions that you would give any other instrumentalist. It may be less direct and more abstract, but that gives the students more room to be creative. Don't ask a student to just use the red mallet.

2. The gear is so important for percussionists and if it isn't well maintained, it just isn't going to sound good, no matter who is playing it. An oboe or bassoon player wouldn't ignore the quality of their reeds and expect their instrument to sound good. General maintenance is a must. Thankfully there is a wealth of resources online for percussion maintenance for those unfamiliar. (See *Percussion Instruments: Purchasing, Maintenance, Troubleshooting and More* by Stephen Primatic, Meredith Music Publications)

3. Ask questions rather than give direction whenever possible. Questions open up possibilities rather than only having one possibility.

4. Use lots of adjectives students are familiar with. This can make more intimidating repertoire seem more approachable.

5. Give students a good idea of articulation and that percussion instruments can have different articulations just like wind players.

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