

The Art of Percussion Articulation

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Articulation – An element of musical performance that facilitates the degree of clarity between successive notes by affecting the attack, sustain, and/or the decay of each sound. Articulation notation and interpretation are subjective and based on musical context.

"Musical considerations such as articulation are just as important for percussion as they are for winds and strings."
- Kevin Mixon

Percussive Variables

On percussion instruments, articulation is mainly a question of dynamic & timbre.

Most important equation for hitting things: $E = \frac{1}{2}M \times V^2$

Implement Choice – Greatest effect on articulation and timbre

- Mass/weight of the mallet/stick
 - Heavier = Louder and Longer vibration
- Size of the mallet/stick (contact area)
 - Larger area = less overtones and darker timbre
- Flexibility of the mallet core
 - Harder material = more overtones and brighter timbre
- Mallet Wrap
 - Softer material = less contact noise

Primary Techniques – Affects the moment of impact on individual notes

- Velocity of stroke
 - Faster stroke = Louder, longer, and brighter
- Weight of stroke
 - Heavier = Louder and longer
- Angle of contact
 - Can change the size, flexibility, weight, and wrap of the mallet
- Point of contact (playing area)
 - Affects which overtones are most prominent

Secondary Techniques – Controls the degree of separation between subsequent notes

- Muting and dampening
 - Shortens the length of vibration
- Rolls
 - Creates the illusion of sustain
- Dynamics
 - Performing successive notes with increasing volume creates the illusion of separate events (staccato)
 - Performing successive notes with decreasing volume creates the illusion of connected events (legato)

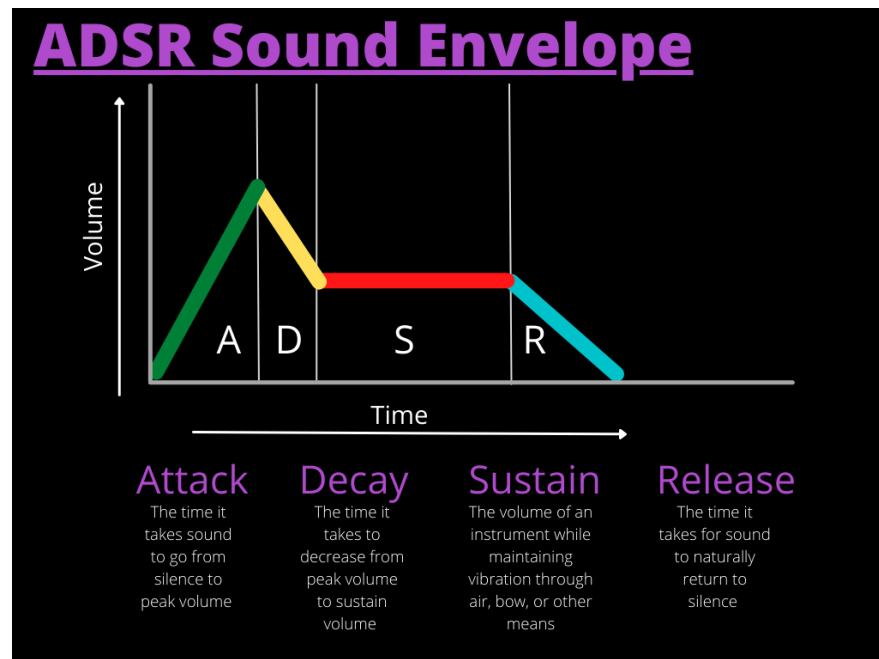
Ancillary Techniques – these variables have no audible effect on articulation, but can support other techniques

- Stroke Height and Direction
 - Makes primary and secondary techniques more efficient
- Grip Tension
 - Can aid changes in stroke weight and velocity
- Sticking Patterns & Note Grouping
 - Can create the illusion of connection or separation
- Visual Gestures
 - Changes the perception of sound

Other Useful Concepts

Phonetic Articulation – Hard Plosives: T, K, P Soft Plosives: D, G, B

Synthesized Articulation – ADSR



Additional Resources

Davis, Adam B. *The Art of Marimba Articulation: A Guide for Composers, Conductors, and Performers on the Expressive Capabilities of the Marimba*, DMA diss., University of North Texas, 2018.







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Chaffee, Gary. "Sticking Patterns: A Musical Approach." *Percussionist* 10, no. 2 (Winter 1972): 47-49.

Martino, Donald. "Notation in General – Articulation in Particular." *Perspectives of New Music* 4, no. 2 (Spring-Summer 1966): 47-58.

Rossing, Thomas D. *Science of Percussion Instruments*. Singapore: World Scientific Publishing, 2000.

Saoud, Erick. "The Effect of Stroke Type on the Tone Production of the Marimba." *Percussive Notes* 41, no. 3 (June 2003): 40-46.

Articulation	Notation	Definition	Wind & String Interpretation	Percussion Interpretation
<i>Legato</i>		Connected. Performance of music so that there is no perceptible pause between notes.	Playing using one breath or one bow. Successive notes are played without the tongue or without changing bow direction.	True legato is not possible on traditional percussion instruments since each note needs to be struck individually. Playing subsequent notes softer than the decay of the initial attack can mask the impact and create the illusion of legato.
<i>Staccato</i>		Detached. Method of playing a note so that it is shortened and separated from its successor.	Vibration is stopped using the tongue or the bow. Players can control how quickly the sound is stopped based on the context and style of music.	True staccato must stop the vibration of the instrument to create silence between the notes. Dead strokes or dampening can accomplish this on most percussion instruments. Changes in the amount of pressure and when it is applied can create a variety of note lengths.
<i>Portato</i>		Carried. Slight separation within a slur using a softer attack.	Each successive note is separated slightly within a slur, without a change in the direction of the bow. Winds use a softer tongue or a softer consonant sound.	This is the default type of articulation on most percussion instruments since each note needs to be struck individually.
<i>Tenuto</i>		Held. Direction to hold note to its full value, sometimes even longer.	Notes are sustained for their full value using air or the bow.	Strategic use of rolls can help to sustain past normal lengths. “Touch” rolls are useful. Also commonly interpreted as a “half accent”. A louder sound automatically creates a longer sound.
<i>Accent</i>		Emphasized. Played with stress and held for full value.	Played louder using faster air or a faster bow. Sustained for full value with a slight decay after the initial attack.	Performed louder than other notes by using a faster velocity stroke. Strokes are usually accelerated from a higher starting point.
<i>Marcato</i>		Marked. Each note emphasized and slightly shortened.	Played louder using faster air or a faster bow. Can be shortened by stopping vibration with the tongue or bow.	Generally louder than normal accents. Performed with a fast velocity stroke and sometimes shortened with dampening after impact.