

HAND TECHNIQUE PRIMER

By John Willmarth

The following technique is not simply for snare drum but is a *percussion technique* that has applications to any instrument that uses a stick or mallet. Although there may be slight alterations from instrument to instrument, this technique will provide a foundation that can be universally applied. One of the most important aspects of any percussion technique is relaxation. This approach is based on the idea that utilizing natural positions and motions for the hands will result in a relaxed approach. The grip is designed so that the stick feels like an *extension* of the hand. By utilizing the relaxed weight of the hand, wrist, and arm combined with the velocity of the stick, you can produce a warm, full, and dark sound. Tension is often the result of an unnatural body or hand position. Strive to eliminate any tightness in your playing. A relaxed and natural technique will lead to the ultimate goal; a great sound! Always listen and evaluate your sound. Your technique is a tool to help you express yourself musically. Beware of technique for technique's sake. It should serve the music without ever overshadowing it.

THE GRIP:

When playing **matched grip**, the hands should appear symmetrical, like a mirror image of one another. Hold the stick about $\frac{3}{4}$ of the way back (approximately 10 inches) to get the most rebound from the drum. This can be illustrated through the bounce test. Using a **rebound stroke**, simply drop the stick on the drum allowing the stick to bounce freely. Observe the response of the stick. How long does it bounce? Repeat the same experiment holding the stick as far back as possible. What is the difference? Repeat the experiment a third time holding the stick near the middle. Obviously, when you hold the stick in the "sweet spot" you get the most response from the drum.

The **fulcrum** is the pivot point of the stick between the thumb and first finger. Think of a teeter-totter. Both ends are free to move up and down. The teeter-totter pivots off of a central point called the fulcrum. The teeter-totter represents the stick and the pivot point is the thumb and first finger. The thumb should always stay on the side of the stick and directly across from the first finger (no hitchhiker thumbs!) The fulcrum is like a vice. You must have enough pressure in the vice to keep the sticks from sliding, but not so much that the stick will not freely pivot. Be aware that minute changes in fulcrum pressure can have huge effects on the response of the stick.

The stick lies in the natural crease of the hand and the fingers should wrap snugly around it. There should be no gaps or spaces between the fingers and the stick (try to form an air-tight seal around the stick.) Unless specified, the fingers should remain in the **closed position**. The ring finger should lightly touch the base of the palm especially on the **upstroke**. Be sure to keep the pinky on the stick. The grip should not be too loose or too tense, but firm like a good handshake. To practice the closed position, try the "open

fulcrum” technique. First, grip the stick as usual. Now, open the fulcrum; that is move the first finger off of the stick completely. You should be holding the stick using the second, third, and fourth fingers. Be sure to keep the arm and wrist in the normal position. Next, begin to play a slow, steady flow of quarter notes, moving from the wrist. Because the fulcrum is open, the other fingers are left to hold the stick. When you return the fulcrum to the stick, the fingers should stay in this position. Do not over squeeze! As you play, you should be able to feel the vibration of the stick in the hand. Use the closed position when playing passages that do not require rebound. This type of technique, with the palm down and the fingers closed, is often referred to as the **German Grip**.

HAND POSITION:

Hand position is the way you hold your hands and arms in relation to the instrument. The arms should be relaxed at your side, with your elbows directly under your shoulders. Resist the temptation to stick out the elbows (aka “the chicken wing”). Conversely, do not hold the arms into the body. The forearms should extend straight out from the elbows with the sticks forming a “V” shape as they angle towards the center of the drum (approximately a 45 degree angle). The drum or pad height should be adjusted so that the forearms slope slightly downward. In **playing position**, the stick tips should be a ½ inch apart in the center of the drum, ½ inch off the head. When only one hand is playing, the other hand must remain in playing position at all times! Check your hand position by dropping your hands to your sides while holding the sticks and slowly moving into playing position. This resets the position of the shoulders, upper arms, and elbows.

WRIST CONTROL:

There are three muscle groups utilized in drumming: the arm, wrist, and fingers. The wrist muscle is used most often and therefore should be developed first. Developing a good stroke is like making a recipe; the ingredients must be added in a certain order. While an experienced percussionist uses a combination of all three muscle groups, it is essential for a young player to be able to isolate and develop the motion of the wrist before adding additional variables. Without the stick, move your hand as if waving or dribbling a basketball. Be sure to keep the arm stationary while moving the wrist. The hands should remain relatively flat so that the wrists can flex like a diving board. Next, form the hand as if you were holding an imaginary stick and repeat the dribbling motion. This is the basic wrist motion. Watch your wrists. All the motion should be initiated from there. It should feel smooth and relaxed. Gradually squeeze and relax the fingers to experience what tension feels like. If you know how it feels to be tense, you’re more likely to notice it, and eliminate it, when it occurs. Finally, place the sticks in your hand and slowly “air drum” a slow, steady quarter note pulse. The stick should travel straight up and down, following the same path every time. Watch the blur of your stick tip. Does it wobble or is it smooth? Strive to reproduce a consistent wrist motion.

STROKE TYPES:

There are two basic motions used to facilitate a percussion stroke. The first is often called the **Legato, Natural, or Piston Stroke**. The word legato means smooth and connected. This term describes the motion of the stick. As you slowly “air drum” legato strokes, watch your stick tips. They should spring back to the **up position**. The lift is what defines the Legato Stroke. At medium to fast tempos, the stick tips should never stop moving! The second motion is called the **Staccato Stroke**. The term staccato means separated or detached. Again, this is referring to the motion of the stick. While watching your stick tips, try “air drumming” slow staccato strokes. They should freeze in the **down position**. The stop in the motion is what defines the Staccato Stroke.

There are four basic stroke types which utilize the Legato and Staccato motion. The **Full Stroke** is a type of legato stroke that is always accented. This stroke should always end in the up position. The **Upstroke** is an unaccented stroke that ends in the up position. Be sure that the lift happens *after* the initial stroke. The Full Stroke and Upstroke both utilize a lift after hitting the instrument and are, therefore, variations of the Legato Stroke. The **Downstroke** is an accented motion that ends in the down position. After striking the drum, the stick freezes in the down position. The **Tap Stroke** is an unaccented stroke that ends in the down position. Watch your stick tips to make sure they stay low to the drum. The Downstroke and Tap both end in the down position and are, therefore, variations of the Staccato Stroke. Practice “air drumming” the different stroke types one hand at a time. Then play one of each type as follows: Full, Down, Tap, Up. Repeat this sequence many times. Strive to clearly define the motion for each stroke. Once this is learned, the stroke types can be applied to the rudiments. Because the stroke types always set the hands up for what is coming up next, this approach will result in great **stick control** and **flow**.

DYNAMICS:

The expression of different volume levels in music is called **dynamics**. Dynamics are essential to the performance of music in any idiom. The interpretation of dynamics depends on the musical situation and is oftentimes adjusted by the performer or conductor. Dynamics should not be the result of hitting harder or softer as this will change the quality of the sound. In drumming, dynamics occur due to the height of the stroke. Hitting hard for louder dynamics will promote tension and tightness. Tension added to the stroke invariably creates a bright, brittle, and choppy sound. In marching percussion, a system of **stick heights** is often used in order to further define dynamics. Stick heights help to enhance uniformity in a section by eliminating any individual interpretation by the performer. The relationship of stick heights to dynamics is as follows: 1” = pianissimo, 3” = piano, 6” = mezzo forte, 9” = forte, 12” = fortissimo.

FINGER CONTROL:

Finger Control is the ability to control the motion of the stick with the fingers. The fingers are used to harness and enhance the natural rebound of the drum. The fingers never force the stick motion, but rather move in harmony with the stick. To experience finger/stick oneness, hold the sticks near the tips and play on the underside of the forearms (also a great way to warm up quietly!) Be sure to keep your arms and hands in the normal playing position. Because of the back-heavy weight distribution, you can feel the resistance of the stick against the fingers. Remember the feeling of the fingers moving *with* the stick.

When adding fingers to the stroke, the hand should move to the **open position**. Allow the 2nd, 3rd, and 4th fingers to loosen around the stick. The space created between the stick and palm gives the stick space to move freely. After striking the instrument, the stick is allowed to rebound and the tip travels up, away from the drum. In conjunction with this motion, the back end of the stick should push away from the palm. Remember the teeter-totter analogy? The fingers should move with the stick as it pivots from the fulcrum. Now the fingers are in position to pull the stick back into the hand. This is the primary function of the fingers: to gently pull the stick towards the palm. The fingers can be added to the motion anytime a rebound stroke is required. The amount of finger utilized is determined by the tempo and dynamic level. Faster tempos require more bounce and, therefore, more finger usage. The more fingers used, the more open, or further away from the palm, the fingers will be. When playing louder dynamics, the fingers will also be in a more open position. Conversely, the softer the dynamic, the lower the stick height, and therefore, a smaller degree of finger will be used. In addition, certain rudiments, such as the roll rudiments, typically require finger technique. As a general rule, use the minimum amount of finger pull necessary to continue the bounce while keeping a flowing motion. Fingers are the “quick” muscles and, as such, should be added to the wrist stroke when fast flourishes are required. By moving between open and closed position, fingers can be added and subtracted from the wrist stroke as needed. Using a continual finger motion in the stroke will create excess motion and cause fatigue.

Try playing a slow, legato stream of eighth notes. Start off using a wrist stroke with the hand in the closed position. Gradually accelerate the tempo. As you get faster, typically around 120 beats per minute, the fingers should begin to integrate with the wrist stroke with the hand moving into the open position. As the tempo increases, the fingers will continue to open up allowing more space between the stick and the palm. Notice the trade-off which occurs between the wrist-driven slower tempos and the finger-driven faster tempos. The ratio of wrist motion to finger motion should fluctuate with the tempo.

Many players practice finger isolation to develop dexterity. At a medium to medium-fast tempo play a steady succession of eighth notes using one finger at a time to propel the stick. The remaining fingers should not touch the stick during this exercise. Try to move the stick with each finger alone, keeping the wrist as still as possible. As you switch

smoothly from finger to finger, do not disturb the rhythmic flow. Think about utilizing a quick finger pulse like touching a hot stove.

The **French Grip** is a playing style which emphasizes finger control. By holding the stick in such a way that the thumbs are on top of the stick, the fingers are free to manipulate the stick. Developing the French Grip style is another way to increase finger dexterity.

DOUBLE STROKE TECHNIQUE:

One of the most challenging skills in percussion to master is the double stroke. In order to execute a double stroke, two concepts must be understood: harnessing the rebound of the drum and finger control of the stick. A **double stroke** is simply a controlled bounce. It's two for one deal! You get two hits for one wrist motion. Try this: using only the fulcrum, drop the stick on a drum or pad. Let the stick bounce until it dies out on its own. This is called a **Free Bounce**. You will find that the natural tendency of the stick is to rebound. This rebound must be harnessed to achieve a quality double stroke. By closing the fingers around the stick, you can "catch" the stick after 2 hits. Now you have a double stroke. Practice dropping the stick and catching it after 2 hits. It's like a game of catch between your wrist and fingers; the wrist initiates the stroke while the fingers terminate the rebound.

This is a great start; however, you may notice that when play doubles in this fashion they are hard to control and sound uneven (2 notes of different volumes). This is where the fingers come into play. The trick is adding them to the stroke without inhibiting the natural bounce of the stick. The fingers are the key to making the doubles sound even with a good sound quality. Without the stick, imagine you are working a yo-yo (the "old school" way, not underhanded!) As the yo-yo extends out of the hand, the fingers open. As the yo-yo returns, the fingers retract to the closed position. Try this motion without the stick. The wrist should move the same as it does when executing a single stroke. The fingers should extend and retract as the wrist flexes. There are two "checkpoints" in this motion. When the wrist is cocked back the fingers should be in the closed position. Conversely, when the wrist is down, the fingers should be in the open position. Now try it with a stick on the drum. Play each note of the double individually at a slow tempo to isolate each checkpoint. Be sure to allow the stick to rebound all the way back as the fingers open. Then reset the wrist as the fingers retract. The fingers must always return to the closed position. If they don't, you are not properly resetting the hand! At first the tendency will be for the fingers to over-pull or slap at the stick. Remember it should feel relaxed and smooth. With practice you will be able to sync up the finger motion with that of the stick.

It is important for the beginning percussionist to exaggerate the motion at a slow tempo and fortissimo dynamic in order to gain control. Breaking it down slowly will actually help you learn it faster! Once the basic technique is learned you will need to shrink down the motion. Ideally, you will use the least amount of finger necessary to smoothly execute the double. The **American Grip** is a playing style which integrates both wrist

and finger by using a slightly tilted hand position (about a 45 degree angle). The American Grip is well suited for double strokes because they utilize both wrist and finger technique.

SOUND QUALITY:

Good **sound quality** is the ability to produce the characteristic tone on a particular instrument. Usually, you will want to produce a full spectrum of overtones at all dynamic levels. A relaxed technique which utilizes the weight of the hand and arm will facilitate tone production. When the hand is in the closed position (fingers snugly around the stick, with no spaces or gaps in the fulcrum), the stick is fully connected to the hand. The weight of the hand and arm can now work in conjunction with the stick. The increase in mass creates a fuller, darker sound. Try experimenting with sound quality. Have a friend play with just the fulcrum, and then with a closed hand (practice pads don't work well for this.) Can you hear the difference? Obviously, you don't always play in the closed position. Many times, however, young players will be too open and loose on the stick which can hamper tone production. As a general rule, play in the closed position for slower tempos and rhythms and the open position for faster tempos and rhythms.

The other factor in achieving great sound quality is the velocity of the stick. The faster the stick is traveling when it hits the head, the more the head or bar resonates. This produces a broader spectrum of overtones, and thus a fuller tone. **IMPORTANT:** Stick velocity is not the same as hitting harder! Hitting hard implies tension which can lead to a myriad of physical problems. This concept is most applicable at soft dynamic levels. Because the stick stays close to the instrument, there is not enough distance to create the same velocity as medium to loud playing. Try playing a steady decrescendo of quarter notes at a slow tempo. Use your entire dynamic range. As you decrescendo, don't change the velocity of your stroke. You will hear a decrease in sound quality, particularly around the mezzo piano to piano range. Do not confuse dynamics with sound quality! The volume of the sound is not the same as the quality of the tone. Ideally, as the volume decreases the sound quality should be maintained. Try the same exercise. As you decrescendo, try to compensate for the shorter distance by snapping the wrist in a quick and relaxed fashion. Be careful not to overplay! It is extremely important to keep the hand in the closed position and maintain a firm grip on the stick. In marching percussion, 3" playing is the key to execution of accent/tap phrases. Because accent /tap combinations comprise 75-80% of the competition show, it is one of the most vital skills to master!

THE FLAM:

A **flam** can be described as a “fat” note. It has two components: the **grace note** and the **primary note**. The grace note hits a split second before the primary note producing a slightly offset sound. Think of the sound “chut”. The most important aspect of flam production is height control. The grace note must be pianissimo, staying very low to the drum. At the same time, the primary note should typically be forte, at a full wrist turn. When one stick is lower than the other, it will naturally be softer and hit first because it has a shorter distance to travel. The difference in dynamics is what gives the flam its characteristic sound. Do not lift for the grace notes! It takes a high degree of coordination to simultaneously play different dynamic levels in each hand. It is helpful to set the hands before attempting a flam. Begin with your right hand in the **up position** and your left hand in **playing position**. Notice the difference in heights. Drop both sticks from this position. The left stick should hit first, followed closely by the right. This is a right flam. Next, reverse the sticking and try a left flam. The primary note always delineates a right flam from a left flam.

It is important to develop a consistent **flam interpretation**. The placement of the grace note determines whether a flam sounds open or flat. An open flam occurs when the grace note hits too early. This will sound like two separate hits. A flat flam occurs when the grace note hits simultaneously with the primary note. This often produces a high pitched overtone or a popping sound. Proper grace note placement is learned through listening, careful analysis, and trial and error. The most important aspect of flam interpretation is consistency. Begin working on flams by practicing same hand flams. They can be achieved by using a full stroke in the primary hand and a tap stroke in the grace hand. Once the interpretation is consistent the student should move on to alternating flams. Alternating flams can be achieved by using a downstroke in the primary hand and an upstroke in the grace hand. With both types, it is helpful to freeze after each flam to check the hand position.

TERMS:

American Grip: A playing style which emphasizes wrist and finger control in which the wrist is held at a 45 degree angle.

Closed Position: A type of grip in which the fingers are wrapped snugly around the stick, controlling its motion.

Double Stroke: A controlled bounce in which the stick hits twice.

Downstroke: An accented stroke which ends in the down position.

Dynamics: The expression of different volume levels in music.

Finger Control: The ability to control the motion of the stick with the fingers.

Flam: A rudiment in which the hands are slightly offset producing an elongated sound.

Flam Interpretation: The placement of the grace note in a flam.

Flow: A technique which utilizes a smooth motion; a legato phrasing.

Free Bounce: Dropping the stick on the head in a manner which allows it to continually bounce until it dies out on its own.

French Grip: A playing style which emphasizes the fingers in which the thumbs are positioned on top of the stick.

Fulcrum: The pivot point of the stick, usually between the thumb and first finger.

Full Stroke: An accented stroke which ends in the up position.

German Grip: A playing style which emphasizes wrist control in which the wrist is held in a flat position.

Grace Note: The unaccented note that hits first in a flam.

Hand Position: The manner in which the hands and arms are held in relation to the instrument.

Legato Stroke: A stick motion that is smooth and connected. (Synonyms: Piston Stroke, Natural Stroke)

Matched Grip: A symmetrical style of holding the sticks in which the right hand and left hand are held in the same manner.

Open Position: A type of grip in which the fingers are loose, allowing the stick to move freely.

Playing Position: A type of hand position in which the stick(s) are in the center of the drum, ½ inch off the head (also known as the down position).

Primary Note: The accented note that hits second in a flam.

Rebound Stroke: Allowing the stick to bounce off the head.

Rudiments: Stickings or patterns that form the vocabulary of rudimental drumming.

Sound Quality: The attributes of the characteristic tone on a particular instrument.

Staccato Stroke: A stick motion that is separated or detached.

Stick Control: The dexterity to play different stickings or patterns while maintaining a steady, controlled rhythm.

Stick Heights: A method of interpreting dynamics often found in marching percussion.

Tap: An unaccented stroke which ends in the down position.

Up Position: A type of hand position in which the wrist is cocked back, with the fingers wrapped snugly around the stick.

Upstroke: An unaccented stroke which ends in the up position.