

Table of Contents

Overview	3
Two Mallet Technique	3
Stroke Types	4
Stroke Styles	4
4 Mallet Technique	5
Timpani	5
Exercise 1.2	7
Fierce 2.0	7
Hyphie	8
4 Mallet Stroke Types	9
Independent Strokes	10
Alternating Strokes	11
Double Vertical Strokes	12
Waves	13
4 Mallet Roll Concepts	15
4 Mallet Roll Exercise	16

Overview

This exercise and technique packet will serve as a foundation for our keyboard percussion program. The enclosed concepts and exercises can provide years of challenge if they are practiced properly. Throughout the season, other exercises may follow, some designed specifically for the show material and others to provide a greater challenge.

Two Mallet Technique

Summary

In order for this ensemble to rehearse effectively, it is essential that we define our technical style and create a working vocabulary. To summarize greatly, our technique will revolve around:

1. A relaxed hand position with a natural curve to the fingers.
2. Playing from the wrist, while keeping our shoulders and elbows relaxed.
3. Creating the look and feel of natural rebound.

Grip Criteria

1. Hold the mallet between the first knuckle of the index finger and the pad of the thumb. The other fingers should be wrapped around the mallet in a relaxed and natural manner.
2. The palm's angle should be as flat as possible to the instrument without causing tension.

Setup Behind the Instrument

1. Stand with feet shoulder width apart with relaxed knees, centering your body in the register of the instrument you will be playing.
2. In the set position, the mallets/wrists are up, at the height of the dynamic you will play. The mallets are slightly angled toward each other.
3. Elbows are relaxed.
4. Make sure there is a natural curve to the hand.

Stroke Guidelines

1. Continue to follow all grip criteria and setup guidelines.
2. Mallet pathway is straight up and down (no slicing).
3. The mallet head moves first, not the forearm or arm. If the mallet head moves first, this means you are playing from the wrist.
4. Check your height of rise consistency. Duplicate your stick heights to achieve a more consistent sound.

Stroke Types

FULL Stroke

This stroke can be played in either a legato or a piston style. The mallet starts at the height of the dynamic you will play, and returns to the same height. Full strokes are the most common type of stroke, and can be repeated one after another. This stroke can be played in a **legato** or **piston** style (along with all of the strokes below).

DOWN Stroke

The mallet starts at the height of the dynamic you will play, but does not return to the previous height (no rebound). At the point where the mallet strikes the bar, the wrist stops and does not lift back up. The mallet will slightly rebound due to a small amount of bounce (don't let the mallet "dead stroke" on the bar). This stroke is ideal for going from a loud to a soft passage of music and maintaining stroke efficiency.

TAP Stroke

"Tap" refers to a rudimental drumming stroke, where the stick only plays 1-3 inches off the head. For our purposes, tap strokes are basically full strokes at a very low height. They can also be played in a legato or piston style.

UP Stroke

The mallet starts at a low height (tap stroke height) and after striking the bar, rebounds to the height of a full stroke. This stroke is ideal for going from a soft to a loud passage of music and maintaining stroke efficiency.

Stroke Styles

The Legato Stroke

In this case the word **legato** refers to the look of the stroke (smooth and connected) rather than the sound that it produces. The mallets move in a smooth and connected manner between the **downstroke** and the **upstroke** without interruption. The downstroke is slightly accelerated and the upstroke is slower and slightly decelerated. This is an excellent general purpose stroke and will be used for most of our music and exercises.

The Piston Stroke

The **piston** stroke requires a downstroke that accelerates more than the legato stroke, and a natural, decelerating upstroke (like dribbling a basketball). There is a noticeable pause between strokes. This stroke is excellent for **shifting** in slower passages that demand the utmost accuracy, and for practicing **double vertical** strokes when using 4 mallets.

Shifting

Basically, **shifting** is how you move from one note to another. The shift must be a part of your stroke's recovery (or rebound). In other words, while your mallet is coming off the bar you just struck, it is headed in the direction of its next target. Though this sounds like a simple concept, it will get a little more complex when we consider having four mallets in our hands and changing intervals and dynamics. The most common problem is waiting too long to shift. Efficient shifting will lead to greater accuracy and consistency.

Flow

The four stroke types discussed above can be played in many different combinations, and have many musical applications. When mastered, they will give you technical efficiency to enable you to relax while playing.

Flow is the ability to combine the above concepts and guidelines into one fluid idea. This will allow you to see and experience the “bigger picture” in the music (musical and rhythmic phrases, dynamics, and expression). This is a big part of becoming a great performer.

4 Mallet Technique

Overview

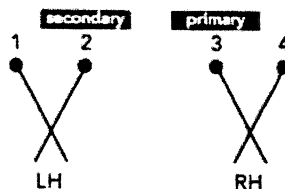
Our primary grips for 4 mallet technique **Stevens Grip** (for Marimbas & Xylophone) and **Burton Grip** (for Vibraphones).

Much of what you will need to know about 4 mallet playing is discussed in the included exercises, and will be taught in rehearsals. Also, almost all of the concepts and techniques described above also apply to 4 mallet playing.

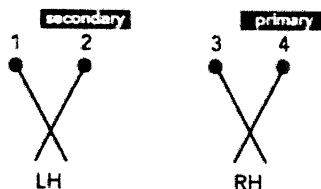
4 Mallet Stickings

Mallet Identification

- Stevens Grip mallet designations



- Burton Grip mallet designations



Timpani

Overview

The positioning of the drums and the relationship of the body to the drums is critical in creating a comfortable, natural playing environment.

Exercises

All timpani versions of exercises will be handed out at the audition camp. Timpanists should also have a good understanding of mallet keyboard fundamentals, and familiarity with the 2 and 4 mallet exercises is encouraged for now to make learning the timpani versions easier.

Playing Areas

- Standard playing areas are 3-4 inches inside the edge of the drum.
- Mallets should always strike the drum at points equidistant from the rim.

Body Positioning

- Timpani should be played from the seated position (using a stool) with the drums arranged in such a way that, relative to mallet length, the playing surface is easily reached from the seated position.
- An improper setup will lead to a diminished sound quality through accuracy problems and increased body tension.

Grip Breakdown and Guidelines

- The fulcrum is located between the thumb and forefinger.
- The forefinger is "out" and relaxed, not curled under the mallet.
- All fingers come into contact with the mallet.

Hand and Mallet Positioning

- Keep the thumbs up with the palms facing each other.
- The mallets should be parallel to each other and relatively close together.
- Mallet heads should be together and in the UP position.
- The stroke incorporates a rotary motion, created as the hand, wrist, and forearm all move in unison.

Rolls

- The mallet heads move slightly apart from each other, staying within the prescribed playing areas.
- Roll speed depends on three things: volume, pitch, and range. Higher volume, pitch, and/or range require faster roll speeds than lower volume, pitch, and/or ranges.

Tuning

- A strong ability to hear pitches and discern intonation is very important.
- Pitch changes require precision footwork. It is important to have quick, crisp motions in order to avoid portamento when changing from pitch to pitch.
- Gauges are helpful when tuning, however, pitch relationship (drum to drum) is fundamental and should be the primary resource when tuning.

Exercise 1.2

Exercise 1.2

A

Nate Bourg

Musical notation for Exercise 1.2, Part A. It consists of a single staff in treble clef with a 4/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5. Below the staff is a guitar-style fretboard diagram with 12 frets. The first seven frets are marked with vertical lines (fingering 1-1-1-1-1-1-1), and the remaining five frets are marked with lowercase 'r's (fingering r-r-r-r-r).

B

Musical notation for Exercise 1.2, Part B. It consists of a single staff in treble clef with a 2/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5. Below the staff is a guitar-style fretboard diagram with 12 frets. The first seven frets are marked with vertical lines (fingering 1-1-1-1-1-1-1), and the remaining five frets are marked with lowercase 'r's (fingering r-r-r-r-r).

C

Musical notation for Exercise 1.2, Part C. It consists of a single staff in treble clef with a 4/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5. The piece ends with a quarter rest followed by a quarter note C5.

Fierce 2.0

Fierce 2.0

Nate Bourg

Musical notation for Fierce 2.0, Part 1. It consists of a single staff in treble clef with a 4/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5.

Musical notation for Fierce 2.0, Part 2. It consists of a single staff in treble clef with a 2/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5.

Musical notation for Fierce 2.0, Part 3. It consists of a single staff in treble clef with a 2/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5.

(Learn in all major and minor keys)

Musical notation for Fierce 2.0, Part 4. It consists of a single staff in treble clef with a 4/4 time signature. The melody is a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5, F5, E5, D5, C5. The piece ends with a quarter rest followed by a quarter note C5.

Hyphie

Hyphie

Tom Gierke

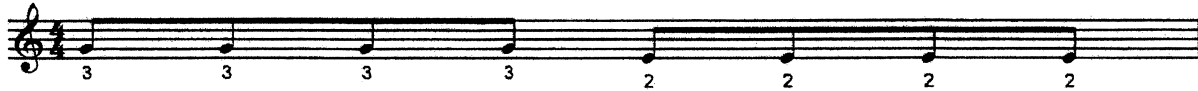
The musical score for "Hyphie" by Tom Gierke consists of six staves of music. The first staff begins with a treble clef, a key signature of three sharps (F#, C#, G#), and a 2/4 time signature. The music is marked with a forte (*f*) dynamic and features a series of eighth-note chords with downward-pointing accents. The second staff, starting at measure 5, continues this rhythmic pattern. The third staff, starting at measure 10, maintains the same texture. The fourth staff, starting at measure 16, introduces a dynamic shift from piano (*p*) to forte (*f*), indicated by a hairpin and a double bar line. The fifth staff, starting at measure 20, continues the piece with a key signature change to two sharps (F#, C#). The sixth staff, starting at measure 23, concludes the piece with a final chord and a double bar line.

4 Mallet Stroke Types

4 Mallet Stroke Types

There are 6 stroke types that cover nearly all 4 mallet playing:

1. **Single Independent Inside:** Single notes played by the inside mallets.



2. **Single Independent Outside:** Single notes played by the outside mallets.



3. **Single Alternating:** Single note patterns to be played by the same hand, alternating the inside and outside mallets.



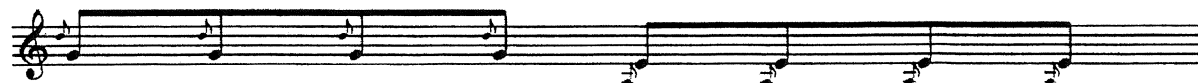
4. **Double Vertical:** Double notes to be played simultaneously by the same hand (or hands together).



5. **Double Lateral Inside:** Fast, rhythmically adjacent notes played by the same hand - inside mallet to outside mallet (2 - 1, or 3 - 4)



6. **Double Lateral Outside:** Fast, rhythmically adjacent notes played by the same hand - outside mallet to inside mallet (1 - 2, or 4 - 3)



Independent Strokes

Independents

Nate Bourg

3 3 3 3 ... 2 2 2 2 ... 4 4 4 4 ... 1 1 1 1 ..

sim.

3 2 4 1 4 3 2 1 1 2 3 4

Alternating Strokes

Alternating Strokes

Nate Bourg

A

Musical notation for exercise A, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes with the fingering 4 3 4 3 4 3 4 3 written above it. The bass staff contains a sequence of eighth notes with the fingering 2 1 2 1 2 1 2 1 written above it. The exercise is divided into two measures, each with a repeat sign at the end.

B

Musical notation for exercise B, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes. The bass staff contains a sequence of eighth notes. The exercise is divided into two measures, each with a repeat sign at the end.

C

fp 2nd x only

Musical notation for exercise C, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes with a forte piano (*fp*) dynamic marking. The bass staff contains a sequence of eighth notes. The exercise is divided into two measures, each with a repeat sign at the end.

D

Musical notation for exercise D, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes with the fingering 1 2 1 2 1 2 1 2 written above it. The bass staff contains a sequence of eighth notes with the fingering 3 4 3 4 3 4 3 4 written above it. The exercise is divided into two measures, each with a repeat sign at the end.

E

Musical notation for exercise E, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes. The bass staff contains a sequence of eighth notes. The exercise is divided into two measures, each with a repeat sign at the end.

F

fp 2nd x only

Musical notation for exercise F, consisting of two staves (treble and bass clef). The piece is in 3/4 time. The treble staff contains a sequence of eighth notes with a forte piano (*fp*) dynamic marking. The bass staff contains a sequence of eighth notes. The exercise is divided into two measures, each with a repeat sign at the end.

Double Vertical Strokes

Verticals

Nate Bourg

A

First system of musical notation for section A. It consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The key signature has one sharp (F#) and the time signature is 4/4. The upper staff contains a series of chords, each marked with a vertical stroke (v) above it. The lower staff is mostly empty, with some notes in the first measure. Fingering numbers 4 and 3 are written in the first measure of the upper staff.

Second system of musical notation for section A. It continues the grand staff from the first system. The upper staff features a sequence of chords, each with a vertical stroke above it. The lower staff contains a few notes in the first measure and is otherwise empty.

B

First system of musical notation for section B. It consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The key signature has one sharp (F#) and the time signature is 4/4. The upper staff is mostly empty. The lower staff contains a series of chords, each marked with a vertical stroke (v) above it. Fingering numbers 2 and 1 are written in the first measure of the lower staff.

Second system of musical notation for section B. It continues the grand staff from the first system. The upper staff is empty. The lower staff contains a series of chords, each marked with a vertical stroke (v) above it.

C

First system of musical notation for section C. It consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The key signature has one sharp (F#) and the time signature is 4/4. Both the upper and lower staves contain a series of chords, each marked with a vertical stroke (v) above it.

Second system of musical notation for section C. It continues the grand staff from the first system. Both the upper and lower staves contain a series of chords, each marked with a vertical stroke (v) above it.

Waves

Tom Gierke

A

p *mf* *p*

5

p *mf* *p*

9

p *mf* *p*

B

14

f *p* *mf*

18

p *mf* *p*

23

p *mf* *p*

C

28

f *p* *p*

31

mf *p*

Waves - Page 2

34

mf

37

p *mf*

40

p *f* *f*

D
43

p *mf* *ppp*

4 Mallet Roll Concepts

There are several methods of sustaining (rolling) pitches on keyboard instruments.
The following are the most commonly used:

Traditional Rolls: Alternate double verticals between the hands.



Double Lateral Rolls: Alternate any combination of double lateral strokes between the hands.



Independent (One Handed) Rolls: Sustain a pitch or pitches using both mallets in one hand.



Combination Rolls: Use double lateral strokes in one hand and double vertical strokes in the other.



Guatemalan Rolls: Strike double verticals in both hands at the same time. Often these will change speeds in a rubato-type manner.



4 Mallet Roll Exercise

4 Mallet Roll Exercise

Tom Gierke

The image displays four staves of musical notation for a 4 mallet roll exercise. Each staff begins with a treble clef and a key signature of one flat (B-flat). The notation shows a roll starting at a dynamic of *p* (piano) and ending at a dynamic of *f* (forte). The first three staves have a dynamic of *mf* (mezzo-forte) at the end of the roll, while the fourth staff has a dynamic of *f*. The notation includes slurs and dynamic markings to indicate the roll's progression.

Things to Keep in Mind:

Roll Speed

Varying the roll speed is critical to a musically pleasing performance. Roll speed will vary according to register (lower register = slower roll; higher register = faster roll) and volume (soft = slower; loud = faster). The bottom line is to use your ears to create a pleasing, sustained sound. If you roll too fast you will distort the sound of the bar and if you roll too slow it will sound like an articulated rhythm.

Relaxation

Performing different 4 mallet rolls, especially at the louder dynamics, can be challenging. Remember to stay relaxed so you are able to always create a smooth, musical look and sound.

Mallet Choice

Often a softer mallet is the best choice for roll passages. Keep in mind the register you are playing in. Soft mallets in the higher registers often don't project and won't be hard enough to get the fullest fundamental tone out of the bar. Mallet choice, as always, should be determined by the specific musical goal.

Roll Type

This exercise can be played using all of the roll types discussed earlier (Traditional, Double Lateral, Independent, Combination, and Guatemalan). Often times a unique musical texture can be created by combining different types of rolls between players, and/or changing roll type during the musical passage.