

Keyboard FUNdamentals

PASIC 2007

Josh Gottry, clinician

Josh Gottry earned a BM in Percussion Performance at Northern Arizona University and is currently pursuing his MM in Composition at Arizona State University. He has also successfully established himself as a percussion instructor and performer throughout Arizona, and as a nationally recognized composer.

Mr. Gottry currently holds the position of Adjunct Percussion Instructor for Chandler-Gilbert Community College. Additionally, he works with percussion ensembles, and private percussion students at all grade levels as part of his private studio. As a performer, Mr. Gottry has remained active as both a soloist and participant in various local ensembles. He currently serves as Principal Percussionist with the Mesa Symphony Orchestra and is the first-call alternate for the Broadway Palm Dinner Theater.

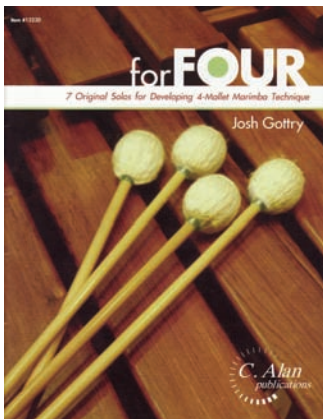
Josh Gottry's first composition, *Irrelevant* for solo marimba, earned him an ASCAP Young Composer Competition grant in 1995. Since that time, he has been selected for six ASCAP Plus awards and has created over twenty published works in the catalogs of C. Alan Publications, Drop 6 Media Inc., HoneyRock Publishing, Row-Loff Productions, Studio 4 Music (a division of Mostly Marimba), and Gottry Percussion Publications. Mr. Gottry's music has gained a reputation for creativity, accessibility, and overall quality and he is regularly commissioned to compose for various percussion ensembles.



Josh Gottry is a member of the Percussive Arts Society, the American Society of Composers, Authors, & Publishers, and the Society of Composers, Inc. He is also a clinician for Mike Balter Mallets, Pro-Mark Sticks, and Yamaha Percussion. Mr. Gottry served six terms as Vice President for the Arizona State Chapter of the Percussive Arts Society and is currently a member of the PAS Education and Composition committees. He was published in the June 2002 and December 2006 issues of Percussive Notes.

More about Josh Gottry's percussion activities and a complete listing of his compositions can be found at: www.gottrypercussion.com

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A new collection of seven original solos for developing 4-mallet marimba technique.

For each solo in this wonderful collection, there is a full page of exercises meant for *technical development* (concentrating on the strokes being used in the piece) and *piece preparation* (concentrating on specific patterns found in the piece).

Excerpts from the book and full recordings available at www.c-alanpublications.com

You will find that **For Four** really fills a gap within 4-mallet marimba literature.

Keyboard Percussion Instruments

Names, Range, and Recommended Mallets



Vibraphone

Metal Aluminum Bars
Resonators with fans run by a motor to create vibrato effect
Pedal for dampening
Common Range: 3 Octaves
Mallets: Yarn, Cord, Soft to Medium Rubber



Marimba

Rosewood or Synthetic Bars
Has Resonators
Common Range: 4 $\frac{1}{3}$ Octaves (up to 5 octaves)
Mallets: Yarn, Cord, Soft to Medium Rubber



Xylophone

Rosewood or Synthetic Bars
Transposing - Sounds one octave higher than written
Has Resonators
Common Range: 3 $\frac{1}{2}$ Octaves (up to 4 octaves)
Mallets: Lexan, Polyball, Rubber



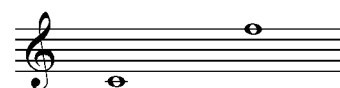
Bells

Steel (or aluminum) bars
Transposing - Sounds two octaves higher than written
Common Range: 2 $\frac{1}{2}$ Octaves
Mallets: Brass, Lexan, Polyball, Hard Rubber



Chimes

Steel Tubes
Transposing - Sounds one octave higher than written
Pedal for dampening
Common Range: 1 $\frac{1}{2}$ Octaves
Mallets: Rawhide or Acrylic Hammers



Grip, Stroke, & Sound

quality technique for a quality musical performance

Grip

- ☒ Focus of the grip is between the thumb and first finger
 - Approximately 2/3 of the way down the shaft of the mallet
 - Thumb directly opposite the first finger at the first knuckle
 - Thumb runs parallel to the shaft
- ☒ Remainder of fingers wrap comfortably around the shaft
- ☒ Back end of the shaft exits hand in the fleshy part of the palm (between wrist and base of fifth finger)
- ☒ Wrist remains straight
- ☒ Back of the hand faces the ceiling (German grip)

Stroke

- ☒ Wrists and fingers only
 - Arm motion is for placing mallet in the right place!
- ☒ Motion led by thumb and first finger
- ☒ Plane formed by the arc of the mallet should remain perpendicular to the ground
- ☒ Full, legato stroke
 - Relaxed wrist and arm
 - Maintain good body posture and position in front of playing spot (as much as possible)
 - Continuous motion
- ☒ Stroke Practice (be sure to keep in mind all of the above!)
 - Shadow Strokes (one mallet at a time)
 1. Start with the mallet directly above the bar (1-2")
 2. Slowly (4-5 seconds) move the mallet to the "up" position (9-12" above the instrument)
 3. Stop in the "up" position - evaluate the path of your mallet and the end position for accuracy
 4. Slowly (4-5 seconds) return the mallet to the original position - evaluate path and end position
 - Switch Strokes (two mallets)
 1. Start with one mallet directly above the bar and one mallet in the "up" position
 2. Slowly (4-5 seconds) switch mallet positions and stop
 3. Evaluate paths and end positions - repeat
 4. Optional: perform switch strokes without stopping - continuous fluid motion

Keys to a Quality Sound

- ☒ Instrument should be approximately waist height to allow for:
 - A relaxed arm position
 - Mallets virtually parallel to the floor when striking the bar
- ☒ Playing Spot should be either:
 - The exact center of the bar
 - The extreme edge of the "black-key" notes or upper manual notes
- ☒ Using a legato stroke, allow approximately 80% of the weight of the mallet to play into the bar
- ☒ Mallet Instrument Rolls
 - Use a single stroke roll (no double bounces or buzz)
 - Strive for a continuous and controlled succession of strokes (no skipping or hiccups)
 - Lower, longer ringing notes should be generally rolled more slowly (allow the bar to ring)
 - Rolls are our instruments vibrato, therefore variety is a good thing. Use your roll speed to add musicality.

Keys to Mallet Reading

What to look for and how to read "words", not just letters

First Look - things to check before you begin

- ☒ Time Signature - Does it remain constant? If changing, does the pulse remain the same?
- ☒ Tempo - Constant or fluctuating?
- ☒ Key Signature - What flats or sharps, if any? Major or minor key? Key or focus notes for the piece? Accidentals?
- ☒ Range - Highest and lowest notes? Any ledger lines that may require extra time to recognize pitches?
- ☒ Embellishments - Rolls, grace notes, etc.?
- ☒ Dynamics - Where are the changes and what is the general dynamic content (i.e. mostly loud, only forte and piano)?
- ☒ Rhythmic groupings - Is the piece primarily quarter and eighth notes or 16th & 32nd notes? Are triplets or other tuplets involved? What is the fastest rhythm incorporated in the piece?
- ☒ Form - Where are the phrases? Are any sections repeated (repeat signs or written out)? Any D.S., to coda, etc.?

Note Grouping - the key to reading musical words

- ☒ Note grouping is similar to letter grouping (reading) as applied to text
- ☒ As with reading text, reading musical words becomes easier the more you practice it.
- ☒ Types Include: Single Line Recognition & Interval Recognition
- ☒ Can be thought of in terms of:
 - Easy/Obvious (i.e. CAT),
 - Moderate (i.e. THOUGHT), or
 - Difficult/Concealed (i.e. TRISKAIDEKAPHOBIA)

Single Line Recognition

Scales or Scale Fragments:

CAT
F Major Scale (root to root)



THOUGHT
D Minor Scale fragments



TRISKAIDEKAPHOBIA
F Minor Scale fragments with rhythmic variation and accidentals



Keys to Mallet Reading, cont.

Single Line Recognition cont.

Repeated Patterns:

CAT
Ascending scale fragments



THOUGHT
Four note pattern sequenced rhythmically with the beat



TRISKAIDEKAPHOBIA
Three note pattern ascending and descending sequenced rhythmically contrary to the beat



Other Common Patterns include:

- Ascending or descending thirds, fourths, etc.
- Patterns repeated at the octave

Interval Recognition

Consistent Intervals:

CAT
Ascending and descending thirds stepwise motion



THOUGHT
Ascending and descending sixths stepwise and triad motion



TRISKAIDEKAPHOBIA
Ascending and descending perfect and diminished fifths with accidentals and primarily skipping motion



Other Common Patterns include:

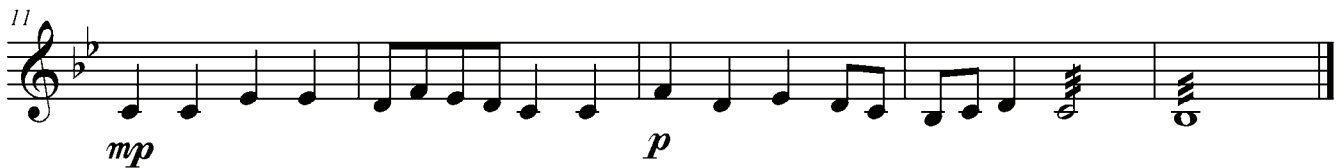
- Same top or bottom note throughout changing intervals
- Common chordal intervals (3rd, 4th, 5th, 6th)
- Common chordal voicing (closed position, two octave open position, seventh chords)

Keys to Mallet Reading, cont.

First Look

- Time Signature
- Tempo
- Key Signature
- Range
- Embellishments
- Dynamics
- Rhythmic groupings
- Form
- Note Grouping: Scale Fragments - as a start, bracket any set of three or more notes moving by step in one direction

Melody from Chorale #22 by J.S. Bach



Keys to Mallet Reading, cont.

First Look

- ☒ Time Signature - Common Time throughout
- ☒ Tempo - as a chorale it is likely slow and somewhat rubato
- ☒ Key Signature - two flats; Bb Major throughout; key note in 2nd phrase is F (5th note of Bb scale)
- ☒ Range - one octave, Bb to Bb
- ☒ Embellishments - rolls on all half notes and whole notes
- ☒ Dynamics - only *p*, *mp*, and *mf*; overall arc shape to dynamics
- ☒ Rhythmic groupings - primarily quarter notes, eighth notes, and half notes
- ☒ Form - first phrase repeats; second phrase is the same two and a half measures twice; first and third phrases conclude with the same material
- ☒ Note Grouping: Scale Fragments - brackets on all sets of three or more notes moving by step in one direction

Melody from Chorale #22 by J.S. Bach

The image displays the melody from Chorale #22 by J.S. Bach, written in treble clef with a key signature of two flats (Bb major) and a common time signature (C). The music is divided into three staves, each starting with a measure number (1, 6, and 11 respectively). The first staff begins with a dynamic marking of *p* (piano) and includes a *mf* (mezzo-forte) marking later. The second staff starts with a *mf* marking. The third staff begins with a *mp* (mezzo-piano) marking and includes a *p* marking. Brackets are used throughout the score to group notes that move by step in one direction, highlighting scale fragments. The piece concludes with a double bar line and repeat dots.

The best way to improve mallet reading is to apply these concepts on a daily basis.

Ask these questions and look for various musical words within your solos, band or percussion ensemble music, and daily sight-reading practice.

Four Mallet Basics

Grips, Strokes, and Approaching a 4-mallet piece

Introductory Information

Describing and accurately identifying all the details regarding 4-mallet technique is a challenge. As a result, it is highly advised that any student pursuing the study of 4-mallet technique meet regularly with a qualified percussion instructor. As an overview, however, the following is a brief description of the most common 4-mallet grips and the basic technique for each. The compositions and subsequent stroke motions used in this source are based on Independent Grip.

The Traditional 4-mallet grip has been used by such outstanding marimbists and teachers as Keiko Abe and Nancy Zeltsman. The grip features a few of the benefits and drawbacks of both the Independent and Burton grips but to a lesser degree. It features the ability to switch inside and outside mallets quickly within each hand and can be performed with birch or rattan shafts. The basics of the grip are as follows:

- Shafts cross inside the hand with the inside mallet shaft closer to the palm
- Outside mallet is held between the index and middle finger
- Inside mallet is held by pressure (created by the fingers under the palm) against the outside of the thumb
- Back of the hand faces up

The stroke for playing both mallets at once is performed using a door knocking motion by bending the wrist. Alternating mallets or single mallet playing can be executed using an arm rotation, like turning a door handle. When performing a single line, the two inside mallets are typically used. Numbering for this grip is 1 2 3 4 starting with the lowest mallet.

The **Burton** 4-mallet grip was developed by jazz vibist Gary Burton. Typically used with rattan shafts, this grip is particularly excellent for jazz vibie and marimba playing or for literature with fewer independent voices and/or primarily chords or single lines. The basics of the grip are as follows:

- Shafts cross inside the hand with the shaft of the outside mallet closer to the palm
- Outside mallet is held between the index and middle finger
- Inside mallet is held between the index finger and thumb
- For wide intervals, the inside mallet can be moved outside of the thumb
- Back of the hand faces up

The stroke for playing both mallets at once or the outside mallet alone is performed using a door knocking motion by bending the wrist. Inside mallets can be played alone using an arm rotation, like turning a door handle. When performing a single line, traditional application of the grip would suggest using the inside left hand mallet and outside right hand mallet. In keeping with the grip's jazz heritage, this allows the right hand outside mallet to be involved in single line melodies and play the upper melodic voice in chords. Numbering for this grip is 1 2 3 4 starting with the highest mallet.

The **Independent (Musser-Stevens)** 4-mallet grip was developed by Clair Omar Musser and refined by marimbists such as Vida Chenoweth and Leigh Howard Stevens. Many independent grip players use birch shafts. It is often

Four Mallet Basics, cont.

considered the most appropriate for classical and contemporary marimba literature. The grip features a great deal of interval flexibility and mallet independence. The basics of the grip are as follows:

- Shafts do not cross inside the hand
- Outside mallet is held by the pinky and third finger and exits the hand between the middle and third fingers
- End of the inside mallet is held against the palm by the middle finger and the shaft is controlled by the index finger (gently extended, not curled under) and thumb
- Thumb faces up

When playing both mallets at once, a hand shaking wrist motion is appropriate. For alternating mallets or single mallet playing, a rotation of the arm is used. When playing a single line, the two inside mallets are typically used. Numbering for this grip is 1 2 3 4 starting with the lowest mallet.

STROKE TYPES

In the following compositions for 4-mallet marimba, I've attempted to isolate and strategically combine the four stroke types typically identified in 4-mallet keyboard percussion (*Method of Movement for Marimba* by Leigh Howard Stevens). The four stroke types are as follows:

Double Vertical Stroke: Both mallets in the same hand move vertically and strike two notes simultaneously. You should strive to execute the notes as a precise double stop, without any flam sound.

Single Independent Stroke: One mallet in the hand moves independently to strike the marimba, rotating on the other mallet such that it does not move. Focus on making sure the other mallet in that same hand maintains limited motion.

Single Alternating Stroke: This stroke requires a rotation motion for alternating strokes between mallets within the same hand. The wrist pivots on an unseen central point such that while one mallet is going down, the other is moving up.

Double Lateral Stroke: Similar to the Double Vertical Stroke in that both mallets approach the marimba at the same time. However, before striking, the wrist rotates quickly to create two separate notes in rapid succession, thus utilizing one motion to achieve two successive pitches.

COMPOSITION

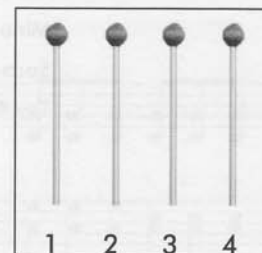
STROKE TYPES USED

Double Dip	Double Vertical
Triple Vision	Single Alternating and Single Independent
A Little Mixer	Single Alternating and Single Independent
Feeling One	Double Vertical, Single Independent, & Double Lateral
Chorale Without Time	Double Vertical and/or Double Lateral sequenced rolls
Groove	All 4 Stroke Types
Bac-a-tu Ba	All 4 Stroke Types

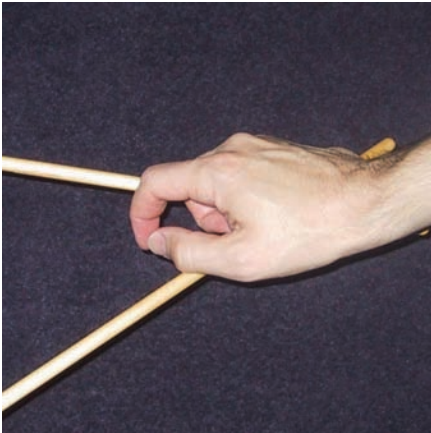
MALLET NUMBERING

Mallets are numbered 1-4, starting with the lowest mallet (outside LH).

The left hand mallets are numbers 1 & 2. The right hand mallets are numbers 3 & 4.



Four Mallet Basics, cont.



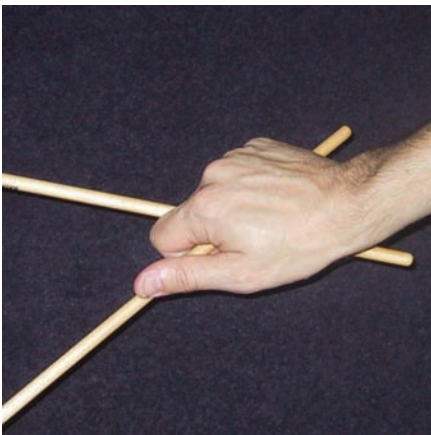
Traditional Grip
(from top)



Traditional Grip
(from underneath)



Traditional Grip
(from front)



Burton Grip
(from top)



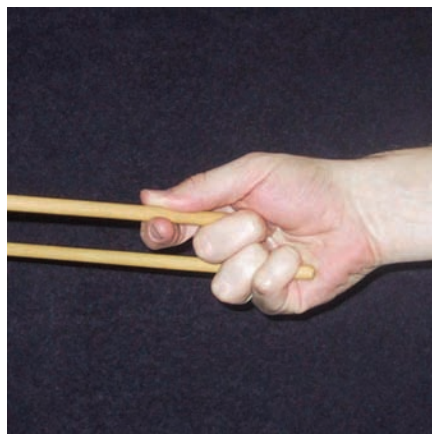
Burton Grip
(from underneath)



Burton Grip
(from front)



Independent Grip
(from top)



Independent Grip
(from underneath)



Independent Grip
(from front)

Four Mallet Basics, cont.

Basic Exercises

There are multitudes of exercises for development of each 4-mallet stroke type. These can range from simple and fairly stationary repeated ideas, to complex combinations of strokes incorporating a large range on the instrument. To begin, the best thing to do is to isolate each stroke type with a simple exercise that can be easily transposed into each of the twelve major or minor keys. The following are examples of one exercise per stroke type that can provide a start in this process, along with a couple ideas for other exercises that may work for you.

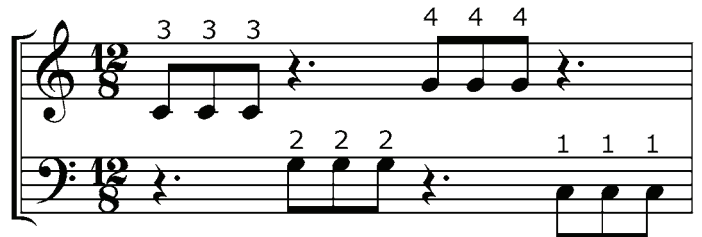
☒ Double Vertical - Open 5ths

- Also try 3rds, 4ths, or block chords
- Practice one hand at a time, two hands together, or with alternating strokes between hands
- Ascend chromatically or diatonically thru a key



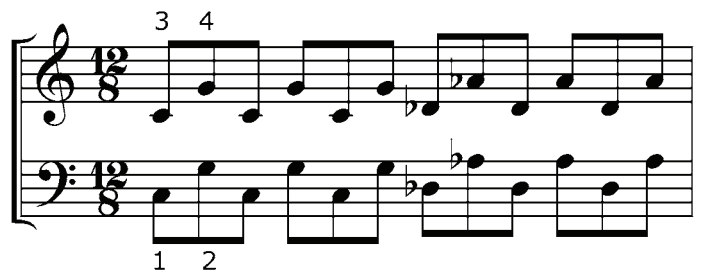
☒ Single Independent - Open 5ths

- Play scales with your inner mallets (2 & 3)
- Play scales in octaves with your outer mallets (1 & 4)
- Play single line melodies with any one mallet



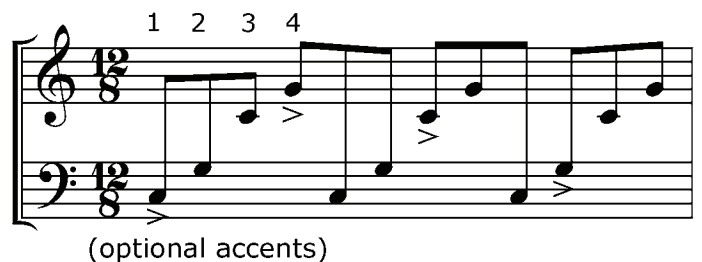
☒ Single Alternating - Open 5ths

- Also try 3rds, 4ths, or block chords
- Practice with different rhythms in each hand
- Try starting on the top or bottom mallet in each hand or the outside mallets or inside mallet in each hand



☒ Double Lateral - Open 5ths

- Also try 3rds, 4ths, or block chords
- Practice ascending, descending, or with any other permutation (i.e. 1 2 4 3)
- Practice with all notes the same volume, then incorporate accents on any given mallet or a specific pulse



Four Mallet Basics, cont.

Approaching a New 4-mallet Piece

- ☒ Identify Stroke Types - What stroke types are used? Are they used independently or in combination?
- ☒ Technique Development - Practice those stroke types in isolated simple exercises.
- ☒ Exercise Creation:
 - Based on repeated ideas within the piece
 - Practice in all keys
 - Include combinations of strokes within a simple constant framework
 - Even use brief excerpts directly from the piece
- ☒ Application - Begin working on the piece referring back to your exercises regularly. Be sure to recognize where the exercises directly relate to your solo.

FEELING ONE

Josh Gottry

$\text{♩} = 72$

f *p*

3 2 3 2 3 2 3 2 3

2 3 2 3 2 3 2 3 2

1 2 3 4 →

f *mp*

Four Mallet Basics, cont.

Approaching a New 4-mallet Piece - Feeling One

☒ Identify Stroke Types

- Double Vertical (measures 1-4; 13-16)
- Single Independent (measures 5-12)
- Double Lateral (measure 17)

☒ Technique Development:

- Exercise 1 - Double Vertical strokes in 3/8 time using tight intervals (2nds, 3rds, 4ths)
- Exercise 2 - Double Lateral strokes using similar intervals to piece but with repetition of each set of pitches
- Piece Prep 1 - Four measure excerpt from the piece working single independent strokes

Feeling One (Exercises)

Technical Development

1.

2.

Piece Preparation

1.